Usenet Newsgroup Archive: rec.radio.amateur.antenna

2006-04 - 2006-06

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Date span: 2006-04-01 through 2006-06-30

Source text: rec.radio.amateur.antenna.txt

Source item: https://archive.org/details/usenet-rec

Messages included in this PDF: 5,095

Message records with no readable body available in the source text: 5

Messages are presented chronologically by archived date.

Binary or encoded payloads are not printed as blocks of encoded text; a placeholder appears where such material was detected. The original source text is unchanged.

1. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 00:09:15 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <LwjXf.65059$dW3.30122@newssvr21.news.prodigy.com>
Source record: 61943

Roy Lewallen wrote:
> It'll be easy enough to show that's false. If I set up a simple
> measurement with a piece of Air-Dux in series with a resistor, a couple
> of calibrated current probes, and a dual-channel scope, will you believe
> the results? Or would you rather have someone else make the measurement
> or do it yourself?

Sorry for the double posting, but I just thought of an experiment
that will settle everything.

Take W8JI's 100 uH coil. Keep the spacing between coil 1 and
coil 100 the same at one foot. Get rid of all the other coils
leaving only coil 1 and coil 100 separated by one foot of air.
Use coil 1 as the primary coil and measure the coupling from
coil 1 to coil 100. If it is 100%, you will have made believers
out of everyone and we can stop this silly argument.

The lumped circuit theory says that all the flux in coil 1
links to coil 100 one foot away just as if they were
both tightly wrapped around a toroid.

So there's the challenge. Simply prove that 2" dia coils one
foot apart in air transfer all the energy from one coil to
the other. Piece of cake.
--
73, Cecil http://www.qsl.net/w5dxp

2. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 00:10:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pmgr22pq5b6s45iqgjvrkdtv4v0bijevkj@4ax.com>
Source record: 61944

On Sat, 1 Apr 2006 00:59:10 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>To nobody in particular.

To nobody in reply.

>If the propagation time along a coil

which has been described as a transmission line

>is equal to the time taken for
>the current to travel along the length of wire in the coil at the
>velocity of light, then, at a given frequency,

um, yes.

>if a half-wavelength of wire is wound into a coil

which has been described as a transmission line

>it should become self-resonant at that frequency.
>But it isn't.

Maybe it is - within ï¿½59% (after fudging the Vf)

Cecil's theories allows for so many possibilities ;-)

3. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 00:17:30 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <uEjXf.65063$dW3.26631@newssvr21.news.prodigy.com>
Source record: 61945

Reg Edwards wrote:
> The coil resonates at a different frequency which
> depends on the length and diameter of the coil as well as on the
> length of wire.

Yes, that's why inductive loading is more efficient than
linear loading. The inductor has the advantage of adjacent
wire flux coupling. However, the farther away in space that
a particular coil is located from a reference coil, the lower
the coupling. I just issued a challenge to anyone to prove that
the coupling between 2" dia coils separated by one foot of
air is 100%. If anyone can do that, I will admit I am wrong.
--
73, Cecil http://www.qsl.net/w5dxp

4. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 00:25:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gMjXf.65070$dW3.50173@newssvr21.news.prodigy.com>
Source record: 61946

Richard Clark wrote:
> Cecil's theories allows for so many possibilities ;-)

I would have loved to have invented the distributed network
model, but it was proven valid and in widespread use long
before I was born. But apparently, it has been forgotten
in the past half-century. The results are otherwise intelligent
engineers trying to use an unchanging standing wave phase to
measure the phase shift through a loading coil in a standing wave
antenna system, not realizing that the phase of the standing wave
current cannot even be used to measure the phase shift in
a piece of wire (since it is virtually unchanging).
--
73, Cecil http://www.qsl.net/w5dxp

5. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 00:34:07 UTC
From: w8ji@akorn.net
Message-ID: <1143851647.724572.129010@j33g2000cwa.googlegroups.com>
Source record: 61947

Reg Edwards wrote:
> To nobody in particular.
>
> If the propagation time along a coil is equal to the time taken for
> the current to travel along the length of wire in the coil at the
> velocity of light, then, at a given frequency, if a half-wavelength of
> wire is wound into a coil it should become self-resonant at that
> frequency.
>
> But it isn't. The coil resonates at a different frequency which
> depends on the length and diameter of the coil as well as on the
> length of wire.
>
> Just make a coil, measure its resonant frequency, then measure the
> length of wire it contains. There will be no direct relationship
> between resonant frequency and length of wire.

Thanks Reg, but I'm sure most people already understand that. I think those who have been following this thread and who don't understand that are beyond help.

As a matter of fact if we all just go back to the very first post you made, we'll see nothing has changed from what you initially said.

I'm sure the 800-post thread will continue another 800 posts. People must be bored.

73 Tom

6. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 00:37:38 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <mXjXf.65074$dW3.64652@newssvr21.news.prodigy.com>
Source record: 61948

w8ji@akorn.net wrote:
> I'm sure the 800-post thread will continue another 800 posts. People
> must be bored.

Actually, they are wondering how you are going to prove 100%
coupling between coil 1 and coil 100 in your 100uH coil such
that the result was 3 nS of delay over that one foot length.
--
73, Cecil http://www.qsl.net/w5dxp

7. Elivated vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 00:58:16 UTC
From: John <john_stlmo@yahoo.com>
Message-ID: <JekXf.456$8h7.50@fe04.lga>
Source record: 61949
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

I've got a Butternut vertical HF6V and have plans to place it up on the roof. I've had it ground mounted (worked super) but due to family uses for the yard will have to move it up and out of the way.

Rather than laying down 20 pieces of wire on my roof for radials (insulated with the tips protected) I'd like to try and build a Butternut "No radials required with the optional CPK Counterpoise kit" but I'm having difficulty finding the specs.

Has anyone ever built one or have the measurements for a general purpose counterpoise kit?

Thanks.

John
john_stlmo at yahoo dot com

8. Re: Elivated vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 02:08:58 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <aMWdnaZI_tgmfbDZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 61950
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

"John" <john_stlmo@yahoo.com> wrote in message
news:JekXf.456$8h7.50@fe04.lga...
> I've got a Butternut vertical HF6V and have plans to place it up on the
> roof. I've had it ground mounted (worked super) but due to family uses
> for the yard will have to move it up and out of the way.
>
> Rather than laying down 20 pieces of wire on my roof for radials
> (insulated with the tips protected) I'd like to try and build a Butternut
> "No radials required with the optional CPK Counterpoise kit" but I'm
> having difficulty finding the specs.
>
> Has anyone ever built one or have the measurements for a general purpose
> counterpoise kit?

Just run the radials... it will take around 550ft of wire.... I have my 5BTV
on the roof with 20 radials... the 75 meter radials are guyed out to trees.
It works very much good. :-)

-n6ojn

9. Re: Elivated vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 02:21:38 UTC
From: Glenn <aa5pk@hotmail.com>
Message-ID: <aslXf.4554$C85.4317@dukeread10>
Source record: 61951
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

"John" <john_stlmo@yahoo.com> wrote in message news:JekXf.456$8h7.50@fe04.lga...
> I've got a Butternut vertical HF6V and have plans to place it up on the roof. I've had it ground
> mounted (worked super) but due to family uses for the yard will have to move it up and out of the
> way.
>
> Rather than laying down 20 pieces of wire on my roof for radials (insulated with the tips
> protected) I'd like to try and build a Butternut "No radials required with the optional CPK
> Counterpoise kit" but I'm having difficulty finding the specs.
>
> Has anyone ever built one or have the measurements for a general purpose counterpoise kit?
>
> Thanks.
>
> John
> john_stlmo at yahoo dot com
>

Bencher has the instructions on their site:

<http://www.bencher.com/pdfs/00236IZV.pdf>

The spreaders are 5.5' and the wire is 8'3" on a side.

10. .pcb and .sch layout files help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 03:13:56 UTC
From: mazerom <electromagnetic377@yahoo.com>
Message-ID: <1143861236.631465.287540@i39g2000cwa.googlegroups.com>
Source record: 61952

i have a cadstar v5 software that opens .pcb and .sch files.now i would
liek to open my evaluation files from chipcon with .pcb and .sch
extension files and the software proceeds to saying in the wrong
format?
can you help me pls?

11. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 03:40:46 UTC
From: richardharrison@webtv.net
Message-ID: <11762-442DF63E-525@storefull-3252.bay.webtv.net>
Source record: 61954

Cecil, W5DXP wrote:
"Actually, they are wondering how you are going to prove 100% coupling between coil #1 and #100 in your 100 uH coil such that the result was 1 nS delay over that one foot length."

Yes. I think turn-to-turn capacitance doesn`t amount to much and won`t bypass the coil as you have 100 small capacitors in series, so their sum approaches zero.

The speed of the wave is almost 984 feet per microsecond. At 75 meters (4 MHz), 1/4-wave is about 60 feet, and this corresponds to 90-degrees. The delay corresponding to the time required to establish current in the coil to induce voltage seems trivial to me. Almost instantaneous transmission between the first and last coil turns should be possible were they tightly coupled.

But, I think Cecil is on to something. I`ve played with antique radios using front panel adjustment to control distance between two coils on the same axis to control their mutual impedance. You only had a couple inches of adjustment which was enough to seriously decouple the coils. 12-inch separation would surely have almost completely decoupled them. This much separation was not available as I`m sure it is unnecessary.

Best regards, Richard Harrison, KB5WZI

12. Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 03:49:59 UTC
From: Howard W3CQH <hgorden@adelphia.net>
Message-ID: <qfSdnQtbAur6ZbDZnZ2dnUVZ_sadnZ2d@adelphia.com>
Source record: 61953

Looking to purchase an auto antenna tuner that covers from approx 1.6 -
60Mhz. Predominantly for coax.
Any suggestions?

73's

13. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 04:18:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <122rvnrid599e3f@corp.supernews.com>
Source record: 61955

Richard Harrison wrote:
> . . . Almost instantaneous
> transmission between the first and last coil turns should be possible
> were they tightly coupled.
> . . .

Oops, wait a minute. Just a couple of hours ago you said the current would have to wind its way around each turn, following the wire from one end to the other, and that it would take nearly the wire length divided by the speed of light. Have you changed your mind about how inductors work?

Roy Lewallen, W7EL

14. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 04:19:03 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <XanXf.43785$_S7.1030@newssvr14.news.prodigy.com>
Source record: 61956

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> It'll be easy enough to show that's false. If I set up a simple
>> measurement with a piece of Air-Dux in series with a resistor, a
>> couple of calibrated current probes, and a dual-channel scope, will
>> you believe the results? Or would you rather have someone else make
>> the measurement or do it yourself?
>
>
> Sorry for the double posting, but I just thought of an experiment
> that will settle everything.
>
> Take W8JI's 100 uH coil. Keep the spacing between coil 1 and
> coil 100 the same at one foot. Get rid of all the other coils
> leaving only coil 1 and coil 100 separated by one foot of air.
> Use coil 1 as the primary coil and measure the coupling from
> coil 1 to coil 100. If it is 100%, you will have made believers
> out of everyone and we can stop this silly argument.
>
> The lumped circuit theory says that all the flux in coil 1
> links to coil 100 one foot away just as if they were
> both tightly wrapped around a toroid.
>
> So there's the challenge. Simply prove that 2" dia coils one
> foot apart in air transfer all the energy from one coil to
> the other. Piece of cake.

What lumped circuit theory? It's a simplification and everyone
knows it. Don't set up any more straw men than you have to, Cecil.
73,
Tom Donaly, KA6RUH

15. Re: .pcb and .sch layout files help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 04:58:03 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1143867483.327888.317680@i40g2000cwc.googlegroups.com>
Source record: 61957

You'll probably have better luck posting in an electronics CAD group,
or even an electronics design group. A bonus is that you won't get
people here upset because you're posting something so far off an
"antennas" topic.

16. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 05:48:09 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <tuoXf.54497$F_3.34460@newssvr29.news.prodigy.net>
Source record: 61958

Tom Donaly wrote:
> Cecil Moore wrote:
>> So there's the challenge. Simply prove that 2" dia coils one
>> foot apart in air transfer all the energy from one coil to
>> the other. Piece of cake.
>
> What lumped circuit theory? It's a simplification and everyone
> knows it. Don't set up any more straw men than you have to, Cecil.

It's not a straw man if someone actually believes it. We
have a 2" dia. x 12" long coil. That's a length to diameter
ratio of 6/1. There's no way coil 1 links all its flux to
coil 100. Yet the *measured* delay through that coil was
3 nS. EZNEC says the delay through a better linked 70 uH
coil is 6.22 nS.

Have you noticed that the coils having instantaneous
propagation times have been getting smaller and smaller
and more conceptual rather than real?
--
73, Cecil http://www.qsl.net/w5dxp

17. Re: What kind of antenna is this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 06:05:07 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <mKoXf.1273$I%6.62@fed1read12>
Source record: 61959

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:122r3jlmqjh1g15@corp.supernews.com...
> KG0WX wrote:
> > . . .
> > Disclaimer: I am NOT trying to "hack" free internet access from the
> > neighborhood WiFi 802.11b/g systems - that's not what wardriving is
> > about......
>
> What is it about?
>
> Roy Lewallen, W7EL

Oh, there's a certain element of fun in "seeing what works." Try to find a ham who's never tried
anything goofy -- it can't be done!

At that frequency, you can do a great deal with a cone of metal mesh (a minor purchase at the
hardware store). Put the small end around the antenna and the open end pointed in the direction
of the desired signal.

My entry into that band was not ham or Wi-Fi, but MDS television. There is a TV band around 2300 MHz. (I don't really want to go out in my cold garage and look
it up.)

I bought a downconverter for that band (which was used for porno movies in my area at the time) but I didn't have enough signal. So, I started goofing with mesh cones.
I got big time improvement with very little effort.

If the aim is just experimentation, then a three-foot metal mesh cone will actually be an appealing
feature of the setup.

KD6VKW

18. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 06:16:53 UTC
From: w8ji@akorn.net
Message-ID: <1143872213.259056.278130@z34g2000cwc.googlegroups.com>
Source record: 61960

Cecil Moore wrote:
> It's not a straw man if someone actually believes it. We
> have a 2" dia. x 12" long coil. That's a length to diameter
> ratio of 6/1. There's no way coil 1 links all its flux to
> coil 100.

Cecil sure is selective in presenting data.

He alters dimensions and anything else that gets in his way. He dismisses EZNEC when it disagrees with him (he did that just a dozen or two posts ago), he uses it when it suits him.

What a character!

19. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 06:54:36 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <8Niof3FsOiLEFAkM@ifwtech.co.uk>
Source record: 61961

Tom Donaly wrote:
>
>What lumped circuit theory? It's a simplification and everyone
>knows it. Don't set up any more straw men than you have to, Cecil.

It's a simplification of any real-life coil - but loading by
pure-and-simple lumped inductance is also a vital test case.

This form of loading is the simplest imaginable. If a theory about the
behaviour of loaded antennas fails to give correct results for this very
simplest test case, it cannot be valid... and all the further
elaborations about real-life coils will not be valid either.

Cecil's theory does work for this test case, because it requires that
basic electrical properties like current and inductance switch into a
different kind of behaviour in what he calls a "standing wave
environment". But it is an absolutely basic fact that the physical world
does NOT change its behaviour according to the way we choose to think
about it. If any theory requires that, it's an absolute proof that such
theory is false.

For the avoidance of doubt (as they say in Scottish legal documents):
It certainly IS possible to analyse and predict the behaviour of
coil-loaded antennas in terms of travelling and standing waves. My
objection is specifically against Cecil's method, which is provably
incorrect.

(Away now to the GMDX Convention, so no replies till Monday.)

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

20. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 08:09:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <orcs2259p86arks313g526qksnbpb0b01o@4ax.com>
Source record: 61962

On Sat, 01 Apr 2006 00:25:48 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>But apparently, it has been forgotten in the past half-century.

Classic 5th sign of bogus science being offered.

>>5. The discoverer says a belief is credible because it has endured for
>>centuries ... our ancestors possessed
>>miraculous remedies that modern science cannot understand.

Hi Tom,

How could I possibly find this boring? It isn't every day that you
find someone channeling Ramtha from the antediluvian 1950s to design
antennas.

OK, so it is a cheesy sort of K-Mart channeling.

73's
Richard Clark, KB7QHC

21. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 12:55:44 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kLuXf.54510$F_3.5355@newssvr29.news.prodigy.net>
Source record: 61963

w8ji@akorn.net wrote:
> He alters dimensions ...

I don't remember the exact dimensions of your coil so you might refresh my memory. Was it 100 turns at 8 TPI? I have the same coil stock in a 50 uH version.

As far as the EZNEC files go, I created them. Gene altered they away from the agreed upon length specifications. I altered them back and corrected a mistake I made in the traveling wave configuration.
--
73, Cecil http://www.qsl.net/w5dxp

22. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 13:06:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <YUuXf.54511$F_3.23209@newssvr29.news.prodigy.net>
Source record: 61964

Ian White GM3SEK wrote:
> It's a simplification of any real-life coil - but loading by
> pure-and-simple lumped inductance is also a vital test case.

It only tests the validity of the lumped-circuit model. It does
NOT test the validity of the real world. Testing the validity
of the real world is best left to metaphysicians, not engineers.

> This form of loading is the simplest imaginable. If a theory about the
> behaviour of loaded antennas fails to give correct results for this very
> simplest test case, it cannot be valid... and all the further
> elaborations about real-life coils will not be valid either.

Whoa there, Ian. You are confusing cause and effect. If the lumped
inductance fails to give correct real-world results, then it must
be abandoned in favor of a more powerful model, e.g. the distributed
network model.

You are making my argument for me. Do you really believe a 2" dia
x 12 inch coil has 100% flux linkage between coil 1 and coil 100?

> But it is an absolutely basic fact that the physical world
> does NOT change its behaviour according to the way we choose to think
> about it.

Exactly! Choosing to think about an inductance as "lumped" does
NOT change the behavior of the coil. The behavior of the coil
is what it is. Choosing to think about it as "lumped" is often
an over-simplification, a fantasy existing only in someone's mind.

> For the avoidance of doubt (as they say in Scottish legal documents):
> It certainly IS possible to analyse and predict the behaviour of
> coil-loaded antennas in terms of travelling and standing waves. My
> objection is specifically against Cecil's method, which is provably
> incorrect.

The distributed network model, a superset of the lumped circuit
model, is "provably incorrect" after being accepted and tested
for more than a century??? By all means, please prove it incorrect.
That should be very interesting - overturning a century of
acceptance.
--
73, Cecil http://www.qsl.net/w5dxp

23. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 15:08:45 UTC
From: w8ji@akorn.net
Message-ID: <1143904124.955415.179020@i39g2000cwa.googlegroups.com>
Source record: 61965

Cecil Moore wrote:
> The distributed network model, a superset of the lumped circuit
> model, is "provably incorrect" after being accepted and tested
> for more than a century??? By all means, please prove it incorrect.
> That should be very interesting - overturning a century of
> acceptance.

Ian,

It seems to me Cecil now agrees the system can be modeled as a lumped components and loads and we do not need to use standing waves.

At least that's what it sounds to me like what he is saying now.

73 Tom

24. Re: Elivated vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 15:09:06 UTC
From: John <john_stlmo@yahoo.com>
Message-ID: <clwXf.1$rc5.0@fe05.lga>
Source record: 61966
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment

Thanks for the info - looks like it might be fun to try and build one...
I'm sure a lot of vertical users would find something like that very
handy...

Kind of reminds me of the CB antennas I see with their ground plane kits
except for the wire...

John

"Glenn" <aa5pk@hotmail.com> wrote in message
news:aslXf.4554$C85.4317@dukeread10...
>
> "John" <john_stlmo@yahoo.com> wrote in message
> news:JekXf.456$8h7.50@fe04.lga...
>> I've got a Butternut vertical HF6V and have plans to place it up on the
>> roof. I've had it ground mounted (worked super) but due to family uses
>> for the yard will have to move it up and out of the way.
>>
>> Rather than laying down 20 pieces of wire on my roof for radials
>> (insulated with the tips protected) I'd like to try and build a Butternut
>> "No radials required with the optional CPK Counterpoise kit" but I'm
>> having difficulty finding the specs.
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>> Has anyone ever built one or have the measurements for a general purpose
>> counterpoise kit?
>>
>> Thanks.
>>
>> John
>> john_stlmo at yahoo dot com
>>
>
> Bencher has the instructions on their site:
>
> <http://www.bencher.com/pdfs/00236IZV.pdf>
>
> The spreaders are 5.5' and the wire is 8'3" on a side.
>

25. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 15:36:49 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <l6xXf.17525$fQ6.11573@trnddc03>
Source record: 61967

Reg Edwards wrote:
>>So, then, I would have the same transformer (or balun or whatever)
>
> if I used
>
>>a wooden or plastic torus to wind the thing?
>>
>
> ==
> John, yes you would. But you would not have the choke.
> ----
> Reg.

Reg -

You removed the important part of your post. I will quote it. You said:

"The presence of ferrite has hardly any effect."

This is what I do not understand. If the ferrite has hardly any effect, then explain to me why plastic could not be used as long as the plastic torus is shaped the same.

Now you say it wouldn't be a choke. Why not? As long as the shape of the turns of wire are the same without the ferrite, why would it not be a choke without the ferrite which has "hardly any effect"?

I am not trying to pick an argument. I am trying to understand something that goes against everything I have been taught.

Thanks,
John

26. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 15:45:48 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <MexXf.17527$fQ6.8984@trnddc03>
Source record: 61968

Reg Edwards wrote:
> John, I'm afraid you havn't the foggiest idea about how a choke balun
> works. You are being confused by the Gurus' bafflegab.

I accept that statement, although I think my idea is somewhat better than a fog. I do think I understand relative permeability, for example.

> A choke balun is a device which permits a balanced circuit to be
> connected to an unbalanced circuit without interference to the power
> flow. In this respect it is NOT a transformer. No ratios are involved.
>
> There are two conductors or wires in a transmission line.
>
> In a choke balun the two wires are TOGETHER wound round a ferrite core
> AS ONE WIRE. It is this pair of wires together, as one wire, which
> forms the choke using the ferrite core.

But, you said, "The presence of ferrite has hardly any effect." Why are you bringing up ferrite again? Why is ferrite used if it has hardly any effect? Is there not a cheaper material?

> The choke has inductance and inductive reactance. The reactance chokes
> the current which would flow equally in both wires, in the same
> direction in both wires.
>
> Entirely independently, the pair of wires can carry the normal
> transmission line currents which flow in oposite directions to each
> other. If normal currents in the two wires flow in opposite
> directions to each other then there is no flux induced in the ferrite
> and the ferrite may just as well not be there.
>
> So the choking action has no effect on normal transmission line
> operation along the two wires.
>
> The choke only acts on that current which flows along the line when
> both wires in parallel are considered to be ONE wire.
>
> For longitudinal currents the two wires can be considered as being
> connected together at both ends. Connected in parallel. It's really a
> single wire choke.
>
> It's all very simple really. There are two INDEPENDENT currents
> flowing.
> ----
> Reg, G4FGQ

I must be more dense than I realize. I do not see an answer to my question in your reply. If your answer is there, I would appreciate it if you would point it out to me.

Thanks,
John

27. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 15:49:19 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <3ixXf.49763$bn3.11158@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61969

Cecil,

That's quite remarkable.

You issued a "challenge" to design and report on a loading coil for 4 MHz, with a whip of 8 feet. I responded with a solution that used a whip length of 10 feet. I did not "alter" anything, and I told you exactly what I did.

What came back in return?

Three separate times you altered my file and reported back here that something was incorrectly designed, illegal, or just plain different. You did not acknowledge the changes you made until I complained. (EZNEC did not change the coil pitch or connect the bottom of the coil to the top of the coil.)

I don't have a copy of the IEEE Dictionary, but I believe the correct descriptive word for your action is dishonesty.

-73
Gene
W4SZ

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> He alters dimensions ...
>
>
> I don't remember the exact dimensions of your coil so you
> might refresh my memory. Was it 100 turns at 8 TPI? I have
> the same coil stock in a 50 uH version.
>
> As far as the EZNEC files go, I created them. Gene altered
> they away from the agreed upon length specifications. I
> altered them back and corrected a mistake I made in the
> traveling wave configuration.

28. Vertical Fibre-glass antenna for 10-12-15-20 meter ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 15:56:18 UTC
From: Torbj&#65533;rn Morka <torb-rom@online.no>
Message-ID: <eladnRdioN0DP7PZRVnzvA@telenor.com>
Source record: 61970

Length apx 7 meters, with radials, no tuner needed, to be mounted on a piece
of steelpipe. Any shops or dealer who sells such ?

Torbjorn.
la6wla.

29. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 15:56:29 UTC
From: KG0WX <kg0wx@yahoo.com>
Message-ID: <1143906989.915252.172060@z34g2000cwc.googlegroups.com>
Source record: 61971

Depends on how bad a mismatch and how much RF you're
going to cram through it. For easier setups, like a dipole and
100w, A LDG Z100 will work. Need more? Get an LDG AT200Pro
or 100 pro. If you are QRP, try a Z11, also from LDG.

I've had experience with all the above tuners (except the 200 which
UPS left on my porch then got stolen.) Anyways, LDG makes
a fair to excellent product line HOWEVER, My K2's internal tuner
will tune a worse match than any of the listed LDG tuners. Of course
if you want a KAT2 tuner, You'll need a K2 to install it in....

I know - you were just looking for an excuse to build a K2, right?

Ken KG0WX

30. What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 16:23:24 UTC
From: JIMMIE <JIMMIEDEE123@YAHOO.COM>
Message-ID: <1143908604.326393.313760@j33g2000cwa.googlegroups.com>
Source record: 61972

Recently heard about EH antennas and have done some research into them including reading some articles in this newsgroup. It is begining ti sound very much like my friends homemade FM/TV antenna. My friend being short on money fastened an old bicycle rim to a piece of galvanized pipe(axel stuck in the pipe) Feedline was connected from the center o the wheel to a point on the outer rim. I had repeated told my friend that something like this would never work and he demonstrated to me that it did.. I theink the EH antenna is a lot like this old wheel, just about anything placed on a mast with work to some degree. In this case a very poor antenna allowed my friend to receive 2 TV stations and 4 or 5 FM radio stations. This was a vast improvement over the 0 tv and Fm stations he was receving before putting up his "antenna" Would it be appropriate to say that an EH antenna is more like a coupler that utilises the antenna support structure(tower/mast) and feedline as the radiating elements of the antenna?.

31. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 16:28:54 UTC
From: w8ji@akorn.net
Message-ID: <1143908934.616412.73520@u72g2000cwu.googlegroups.com>
Source record: 61973

Gene Fuller wrote:
> Cecil,
>
> That's quite remarkable.
>
> You issued a "challenge" to design and report on a loading coil for 4
> MHz, with a whip of 8 feet. I responded with a solution that used a whip
> length of 10 feet. I did not "alter" anything, and I told you exactly
> what I did.
>
> What came back in return?
>
> Three separate times you altered my file and reported back here that
> something was incorrectly designed, illegal, or just plain different.
> You did not acknowledge the changes you made until I complained. (EZNEC
> did not change the coil pitch or connect the bottom of the coil to the
> top of the coil.)
>
> I don't have a copy of the IEEE Dictionary, but I believe the correct
> descriptive word for your action is dishonesty.

I wasn't complaining about Cecil altering your coil's dimensions Gene.
I was complaining about him altering the coil I measured and altering
the context of what I say.

What you say about him altering your data is true, but I want you to
know that *I'm first*.

... woops.....I'm not first! I just remembered this:

http://www.w8ji.com/agreeing_measurements.htm

Roy's first. You're way down the list Gene. Get back in line.

73 Tom

32. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 16:32:53 UTC
From: richardharrison@webtv.net
Message-ID: <21950-442EAB35-9@storefull-3255.bay.webtv.net>
Source record: 61974

Roy, W7EL wrote:
"Just a couple of hours ago you said the current would have to wind its way atound each turn, following the wire from one end to the other, and it would take nearly the wire length divided by the speed of light."

Yes, and I`m still convinced that is the case in an air cored r-f coil that is long because the coupling between ends of the coil isn`t enough to bypass the delay of the coil.

I posted speculations on bypassing the delay in the coil. Capacitance between turns is too small over the length of the coil, said to be about one loot, and about 100 turns.

Tom, W8JI had said that magnetic coupling between the start and finish of the coil bypassed the time delay of following the path of the wire. Well, nothing happens instantly when voltage is applied across a coil. 90-degrees after the voltage has crossed the zero axis on its way up, the current does the same. It lags the voltage by 90-degrees. It`s the current which induces a voltage in the coil and this is delayed by the forces predicted by Lenz`s law. 90-degrees at 4 MHz equates to about the time required for a radio wave to traverse about 60 feet of thin wire.

100 turns of wire on a 2-inch form requires about 52 feet of wire. The current travels from start to finish on the coil before the current reaches its maximum in the coil and before energy could be effectively induced from one end of the coil to the other. The wave velocity is about 984 feet per microsecond.

These are just musings aloud and confirm my speculation that signal progress is through conduction on the surface of the wire of the coil.

Best regards, Richard Harrison, KB5WZI

33. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 16:51:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dn8t22heti9un64ipklogdsgqvtnkdtl3n@4ax.com>
Source record: 61975

On Fri, 31 Mar 2006 21:40:46 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>Yes. I think turn-to-turn capacitance doesn`t amount to much and won`t
>bypass the coil as you have 100 small capacitors in series, so their sum
>approaches zero.
>

Hi Richard,

This "approaches zero" capacitance for a coil has been tossed out so many times it is approaching infinity.

For the commonplace coils in these applications, we have rather non-trivial self capacitances. Why, when this evaluates to on the order of 10-12 pF, that so many feel it incumbent to dismiss mutual capacitances, then it does not follow.

Yuri's 60 turn coil may have 60 series capacitors, but it also has 60 parallel capacitances too. A back-of-the-napkin calculation for one turn-to-turn capacitance finds
23.3pF
If we look at the capacitance between the first and last
0.2pF

The capacitance seen at the first loop, then, is a combination of series/parallel capacitances to all other windings that, on average, approaches a dozen picofarads.

The apparent capacitance based on reported resonances and modeled reactance is on the order 12-14pF.

So, across the board and considering that this is RF, and HF at that, the dismissal of capacitances are unwarranted.

73's
Richard Clark, KB7QHC

34. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 17:21:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0mct22dtjmgg0rkrr16f16ukbjdtrgntfk@4ax.com>
Source record: 61876

On Sat, 01 Apr 2006 15:45:48 GMT, John - KD5YI
<groups5munge@verizon.net> wrote:

>Reg Edwards wrote:
>> John, I'm afraid you havn't the foggiest idea about how a choke balun
>> works. You are being confused by the Gurus' bafflegab.
...
>I must be more dense than I realize. I do not see an answer to my question
>in your reply. If your answer is there, I would appreciate it if you would
>point it out to me.

Hi John,

No, you are no more dense than the next, and Reggie's bafflegab is no
more distinct than all that which preceded it - once you discard his
pretension.

If you simply want an explanation from him, we can all see how much
desire will be filled from that. On the other hand, there may soon be
an unzipped executable released soon.

If you simply want to know why he uttered
>> John, yes you would. But you would not have the choke.

The ferrite is wholly transparent to the differential currents (the
balanced and thus equally opposing line currents). Its presence or
absences is immaterial. This is the abstraction of Reggie's bafflegab
for instead simply saying you don't need a choke (the lines' balance
proves that).

Now, if that condition of balance were to ever go away (like we leave
that comfortable illusion and return to reality), then the absence of
the ferrite has also rendered your "choke" chokeless (by the degree of
its contribution because in spite of Reggie's claim, the turns of your
coil remains a choke, if only an inadequate one).

73's
Richard Clark, KB7QHC

35. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 17:25:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <indt22h9510krnopa8m4n1sthokogfllvr@4ax.com>
Source record: 61877

On 1 Apr 2006 08:23:24 -0800, "JIMMIE" <JIMMIEDEE123@YAHOO.COM> wrote:

>Would it be
>appropriate to say that an EH antenna is more like a coupler that
>utilises the antenna support structure(tower/mast) and feedline as the
>radiating elements of the antenna?.

Hi Jimmie,

Sounds fair. You may be disappointed with such a short answer. So if
you simply search Google groups using EH antenna as key terms, you
will find more discussion, but it will all reduce to your short
observation above.

73's
Richard Clark, KB7QHC

36. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 17:30:58 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1143912658.321932.277610@j33g2000cwa.googlegroups.com>
Source record: 61878

Cecil wrote, AMONG OTHER THINGS,

"If 100% of the flux from each and every coil physically linked
100% of each and every other coil, the current would indeed skip
from one end of the coil to the other without interference. That
is the basic presupposition of the lumped-circuit model. "

There is so much wrong with all that, that I hardly even know where to
begin.

First, with k=1 coefficient of coupling among a series string of
self-inductances, you STILL get transmission line behaviour, with
practically the same delay for the same net inductance and same shunt
capacitance as if you model them as independent inductances. So just
because you have complete flux linkage between two coils, you do NOT
necessarily have instantaneous, or even speed-of-light, propagation of
signal from one to another, if you've correctly considered everything.

Because of that, it is crystal-clear that that is NOT "the basic
presupposition of the lumped-circuit model."

If you cut components out of a model, you should NOT expect the model
to behave as it did before. If you cut out 98 percent of a coil (with
its inductance, capacitances, resistance--all of which are frequency
dependent to some degree), OF COURSE you are not going to get the same
answer, and more importantly, the answer you get may bear no
resemblance to the actual performance of the system you were trying to
get some insight into.

Tom

37. electrically long and electrically short trace-length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 17:40:34 UTC
From: mazerom <electromagnetic377@yahoo.com>
Message-ID: <1143913234.508459.283140@z34g2000cwc.googlegroups.com>
Source record: 61879

impedance mactching is a manifestation of reflections from source to load then load to source.as we know,the propagation of this signal is dependent on the dialectric of the propagation channel.
what is the critical length as to when to consider it as a long or short?
or when do we need to at least go away with trace-length impedance matching to buy some space in a fr4 board in 2.4ghz systems?

38. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 18:21:19 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1143915679.346520.74580@v46g2000cwv.googlegroups.com>
Source record: 61880

Heck, Cecil, I don't see Ian saying that a proper distributed model is incorrect at all. I see him saying that YOUR model is incorrect! -- For the record, YOU and YOUR below translate to Cecil and Cecil's.

YOUR model doesn't have any capacitance to the outside world, as YOU have posted and repeated till you are perhaps blue in the face. (No charge storage translates very directly to no capacitance, in case anyone could have missed that.)

Because of that YOUR model has, guess what, ZERO time delay along the coil.

It is ONLY through a combination of both inductance AND capacitance that you get propagation velocities equal to or less than the speed of light.

NOTE that in freespace, the speed of light, c, is exactly equal to 1/sqrt(epsilon_naught * mu_naught) -- and the units of epsilon_naught (freespace permittivity) are FARADS per meter, and mu_naught (freespace permeability) are HENRIES per meter. A coil increases the henries per meter, but somehow we seem to have gotten in YOUR model to some space around the coil in which the permittivity is _zero_ so that we don't have any capacitance in YOUR model. That would be a good trick, but it's not one that Ian and I are buying. I suppose that W8JI and Tom D and Roy and Wes and Reg and Gene and John P and probably the two Richards and some others are ALSO not buying. Why, even the detailed Tesla coil calculations I've seen consider the distributed capacitance to the outside world, in great detail. I'd bet that the authors of those calculations would ALSO not buy your model.

Putting it another way, propagation of an EM wave requires an interchange of energy between electric and magnetic fields. With zero permittivity, there would be no energy stored in the electric field, and no EM wave. (In a TEM transmission line, it's often said that the energy is stored in capacitance and inductance along the line, but that's no different than saying the energy is stored in electric and magnetic fields.)

It amazes me that you fought so hard for a distributed model in which that capacitance to the outside world is missing, but insist that the resulting model allows a non-zero time delay. That's YOUR model; it's all in the stuff YOU have posted for anyone that wants to go look at it. By denying the capacitance in the model, YOU are the one who doesn't accept what's been know since Maxwell and Faraday and Tesla and...

But YOUR model isn't any use to me, and it seems that it's no use to Ian. We'd prefer a model that actually accounts for all the currents correctly, and actually allows for a delay along a transmission-line structure. Then, knowing it's an ACCURATE model when we can verify through specific measurements that it agrees to an acceptable level with those cases we measured, we can look at ways to use that model as-is, or to use a model which makes life easier for us which matches the very accurate one closely enough for our purposes.

(Not only does YOUR model with no capacitance to the outside world have zero propagation delay, but it ALSO leads to a line with infinite impedance, which I'm ALSO not buying, though with zero delay, the line impedance really doesn't matter. Also notice that with no capacitance to the outside world in that area, the model collapses to exactly the one YOU are arguing AGAINST, except that the straight sections of antenna are apparently not in the zero-permittivity area, so we need to keep them separated...it leads to a very strange model, indeed!)

And please note that in the paragraphs above, the only models specifically mentioned are DISTRIBUTED ones, so don't go giving me any bullshit about the other kind. And you can save any bullshit about accepting the fact of capacitance to the outside world, because your postings repeatedly say otherwise.

39. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 18:26:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <lBzXf.61439$H71.8326@newssvr13.news.prodigy.com>
Source record: 61881

w8ji@akorn.net wrote:
> It seems to me Cecil now agrees the system can be modeled as a lumped
> components and loads and we do not need to use standing waves.

A 100% false statement but we are accustomed to such from
W8JI. Since the lumped circuit model is a subset of the
distributed network model, if there is any disagreement
between the two models, the distributed network model wins
every time. They are both right under certain conditions
and the lumped circuit model is wrong under certain
conditions.

Quoting from: http://www.ttr.com/corum/index.htm

"There are no standing waves [allowed] on a lumped element
circuit component. ... for coils whose WIRE LENGTH exceeds
1/6WL", the distributed network model is required.

Quoting from: http://www.ttr.com/TELSIKS2001-MASTER-1.pdf

Concerning the *impedance only* of a loading coil:

"The formula will NOT (and, being lumped, can not) give the
voltage magnification by VSWR dur to physically true
current standing waves on the structure ... If impedance is
the only item of interest, the empirical Medhurst approximation
is acceptable out to about 60 degrees."

But we haven't been arguing about impedance. We have been
arguing about phase. Here's what the above paper says about
phase shift through a loading coil.

"Further, the voltage distribution passes from the loop of a
sinusoid (at 90 degrees) to the linear portion of the sinusoid
(for heights less than 15 degrees)."

It is necessary to use the distributed network model if the
phase shift through the coil is greater than 15 degrees.

Continuing the quote: "Lumped elements 'have no physical
dimensions and no preferred orientation in space; they
can be moved around and rotated at will.' Not so for real
world coils. ... The concept of coil 'self capacitance' is
an attempt to circumvent transmission line effects on small
coils when the current distributions begins to depart from
its DC behavior."
--

73, Cecil http://www.qsl.net/w5dxp

40. Re: electrically long and electrically short trace-length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 18:31:51 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1143916311.644731.132230@e56g2000cwe.googlegroups.com>
Source record: 61882

Clearly it's not black-and-white. Whatever trace you have will have SOME impedance as a transmission line, and if that impedance is close enough to what you want, it's going to work OK. As a rule of thumb, I'd say that any trace over 1/10th of a wavelength long, considering the propagation velocity of the medium, deserves consideration as a transmission line. In critical applications, I've considered traces as short about 1/200 of a wavelength to be transmission lines, but that was more because it was just as easy to do that with the tools I use, as to figure the inductance and capacitance and use them.

Also, if you are working in a 50 ohm world, why not just always use 50 ohm lines for interconnection, unless you are specifically trying to do impedance matching. There are software tools (and hey, even slide-rule sorts of calculators) available to help with all this...Reg has some programs on his site, which are fine if you like non-graphical interfaces. I prefer programs like RFSim99 (free) and WinSmith (not free, but there are other free similar reflection-coefficient based programs) that have graphics, which helps me visualize what's going on.

Cheers,
Tom

41. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 18:32:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <MGzXf.61441$H71.29881@newssvr13.news.prodigy.com>
Source record: 61883

Gene Fuller wrote:
> You issued a "challenge" to design and report on a loading coil for 4
> MHz, with a whip of 8 feet. I responded with a solution that used a whip
> length of 10 feet.

No, you didn't! You responded with a antenna
length of 11.775 feet, 3.775 feet longer than the agreed upon
8 foot antenna. It wasn't the whip that was to be 8 feet, it
was the entire antenna. I made that perfectly clear early on
so it would match the mobile antennas in the ARRL Antenna Handbook.

> You did not acknowledge the changes you made until I complained.

Of course I did. Go back and read my postings about such.
It wasn't until you complained that I sent you the corrected
EZNEC files. I made a severe blunder in the traveling wave
model and you copied my blunder.
--
73, Cecil http://www.qsl.net/w5dxp

42. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 18:40:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <oOzXf.61442$H71.45204@newssvr13.news.prodigy.com>
Source record: 61884

w8ji@akorn.net wrote:
> I was complaining about him altering the coil I measured and altering
> the context of what I say.

I was doing it from memory, Tom, which may be faulty. As I
remember, you coil was 2" dia and 100 turns at 8 TPI. If
that's not right, what was it?

> http://www.w8ji.com/agreeing_measurements.htm
> Roy's first. You're way down the list Gene. Get back in line.

Telling Roy about his abortive use of standing wave current
phase to try to measure phase shift when there is zero phase
shift in a wire or in a coil is just stating the technical facts.

As far as measuring phase through a coil goes, neither you
nor W7EL has any clue as to how to make valid measurements.
You guys really need to listen to Gene Fuller who said:

Regarding the cos(kz)*cos(wt) term in a standing wave:

> Gene Fuller, W4SZ wrote:
>> In a standing wave antenna problem, such as the one you describe, there is no
>> remaining phase information. Any specific phase characteristics of the traveling
>> waves died out when the startup transients died out.
>>
>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen again.
>>
>> The only "phase" remaining is the cos (kz) term, which is really an amplitude
>> description, not a phase. The so-called "phase reversal" in longer antennas is
>> not really about phase either. It is merely a representation of the periodic
>> sign reversal seen in a cosine function.

What is it about Gene's posting that you and W7EL don't understand?
--
73, Cecil http://www.qsl.net/w5dxp

43. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 18:43:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <yRzXf.61443$H71.2040@newssvr13.news.prodigy.com>
Source record: 61885

Richard Harrison wrote:
> 100 turns of wire on a 2-inch form requires about 52 feet of wire.

52 feet of wire on 4 MHz is 0.21 WL. Dr. Corum says anything
over 0.17 WL requires the distributed network model.

The 3 nS delay measured by W8JI through that coil is simply
technically impossible except in his mind.
--
73, Cecil http://www.qsl.net/w5dxp

44. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 18:47:54 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <uVzXf.5123$Up2.2182@trnddc07>
Source record: 61886

Richard Clark wrote:

(snip)

> If you simply want to know why he uttered
>
>>>John, yes you would. But you would not have the choke.
>
>
> The ferrite is wholly transparent to the differential currents (the
> balanced and thus equally opposing line currents). Its presence or
> absences is immaterial. This is the abstraction of Reggie's bafflegab
> for instead simply saying you don't need a choke (the lines' balance
> proves that).
>
> Now, if that condition of balance were to ever go away (like we leave
> that comfortable illusion and return to reality), then the absence of
> the ferrite has also rendered your "choke" chokeless (by the degree of
> its contribution because in spite of Reggie's claim, the turns of your
> coil remains a choke, if only an inadequate one).
>
> 73's
> Richard Clark, KB7QHC

Hi, Richard -

Although your language is a bit formal for me (I lack a formal education), I think I understand what your are saying. I am aware that the fields caused by the differential currents cancel (mostly). It makes sense that a magnetic core is not necessary when the fields cancel. And, I can see where the core is useful when the fields do not cancel. I just did not interpret Reg's information as applying to one situation and not the other.

Thank you and 73.

John

45. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 18:53:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <a%zXf.61444$H71.12460@newssvr13.news.prodigy.com>
Source record: 61887

K7ITM wrote:
> Because of that, it is crystal-clear that that is NOT "the basic
> presupposition of the lumped-circuit model."

Sounds like your argument is with Dr. Corum, not with me.
He said: "In fact, lumped-element circuit theory inherently
employs the cosmological presupposition that the speed of
light is infinite, as every EE sophmore should know. ...
Lumped element representations for coils REQUIRE that the
current is uniformly distributed along the coil - no wave
interference and no standing waves can be present on lumped
elements. ... Lumped circuit theory fails because it's a
THEORY whose presuppositions are inadequate."

Perhaps you missed that day in EE203?
--
73, Cecil http://www.qsl.net/w5dxp

46. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 18:55:51 UTC
From: richardharrison@webtv.net
Message-ID: <25559-442ECCB7-613@storefull-3253.bay.webtv.net>
Source record: 61888

Richard Clark wrote:
"The apparent capacitance based on reported resonances and modeled
reactance is on the order of 12 -14 pF."

Have you calculated the self-capacitance of a 2in x 12in single-layer
coil for yourself?

The length to diameter ratio is 6.
H = .92
D = 5 cm

HD = 4.6 pF by the formula on page 451 of the "Radiotron Designer`s
Handbook". Course, formulas are a dime a dozen and disputed.

Best regards, Richard Harrison, KB5WZI

47. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 19:07:03 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <c8AXf.21341$g6.19343@bignews8.bellsouth.net>
Source record: 61889

"Howard W3CQH" <hgorden@adelphia.net> wrote in message
news:qfSdnQtbAur6ZbDZnZ2dnUVZ_sadnZ2d@adelphia.com...
> Looking to purchase an auto antenna tuner that covers from approx 1.6 -
> 60Mhz. Predominantly for coax.
> Any suggestions?
>
> 73's

For price and performance, it is hard to beat the LDG Pro-series.

73

Jerry
>
>

48. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 19:11:24 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1143918684.221674.276010@i39g2000cwa.googlegroups.com>
Source record: 61890

Why, yes, in fact it is true that I don't agree in every case with the unknown guru you've placed on a pedestal above all reproach. So there. It is also true that I do not agree with your (mis)interpretation of what your unknown guru has written.

I REGULARLY model transmission lines as "lumped elements" and do NOT "presuppose that the speed of light" through them is infinite.

I REGULARLY model op amps as "lumped elements" and do NOT presuppose that the phase shift (and therefore propagation time) through them is infinite.

I REGULARLY model analog to digital converters as "lumped elements" and do NOT presuppose that the result comes out at the same time as the signal that goes in.

I REGULARLY model inductors as "lumped elements", and do not presuppose that they have no resistances and capacitances parasitic to their inductANCE.

I find that my models very reliably predict the behaviour I actually observe in the circuits I build. I am served very well by the models I use.

By the way, what's EE203? It's very likely that I missed not only that day but all such days. You yourself may well be presupposing something that isn't true.

Cheers,
Tom

49. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 19:14:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9iAXf.61446$H71.47254@newssvr13.news.prodigy.com>
Source record: 61891

K7ITM wrote:
> YOUR model doesn't have any capacitance to the outside world, as YOU
> have posted and repeated till you are perhaps blue in the face. (No
> charge storage translates very directly to no capacitance, in case
> anyone could have missed that.)

I do wish you guys would argue in good faith.

STRAWMAN ALERT
I didn't say there was no capacitance to the outside world. I said
such is a secondary effect, not a primary effect, and for the sake
of the present argument, can be ignored as secondary effects often
are ignored.

> Because of that YOUR model has, guess what, ZERO time delay along the
> coil.

No, transmission lines have negligible capacitance to the outside
world and their time delays are NOT zero. You straw man is just
not believable.

> It is ONLY through a combination of both inductance AND capacitance
> that you get propagation velocities equal to or less than the speed of
> light.

Yes, and that capacitance can be either internal or external.
I'm ignoring the rest of your posting because it is based on
the false premises of your straw man. But you get an 'A' in
Obfuscation 101.

> It amazes me that you fought so hard for a distributed model in which
> that capacitance to the outside world is missing, ...

It is *NOT* missing. That is just your straw man. It is just
secondary to the addition of the forward and reflected current
phasors.

At a point where the the forward and reflected current phasors
add up to zero, it's hard for anything else to contribute much
of an effect.
--
73, Cecil http://www.qsl.net/w5dxp

50. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 19:26:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <StAXf.61447$H71.2494@newssvr13.news.prodigy.com>
Source record: 61892

K7ITM wrote:
> I REGULARLY model transmission lines as "lumped elements" and do NOT
> "presuppose that the speed of light" through them is infinite.

I'm interested in knowing how you model a shorted quarter wavelength
stub using the lumped element model.

> I REGULARLY model op amps as "lumped elements" and do NOT presuppose
> that the phase shift (and therefore propagation time) through them is
> infinite.

I should hope not! You would never get a signal through them. :-)

> I REGULARLY model inductors as "lumped elements", and do not presuppose
> that they have no resistances and capacitances parasitic to their
> inductANCE.

Then you are somehow applying a patch to the lumped element model.
The basic lumped element model assumes no resistance and no
capacitance. That's how the lumped inductance-only works in EZNEC.

> I find that my models very reliably predict the behaviour I actually
> observe in the circuits I build. I am served very well by the models I
> use.

Do you use them on 75m bugcatcher coils and obtain an incorrect
phase shift as W8JI and W7EL have done?

> By the way, what's EE203?

The sophmore EE class alluded to by Dr. Corum.
--
73, Cecil http://www.qsl.net/w5dxp

51. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 19:40:48 UTC
From: Jim <jbollit@verizon.net>
Message-ID: <4HAXf.10092$dU3.6515@trnddc01>
Source record: 61893

I saw a construction article in the ARRL Antenna Handbook , 13th Edition, 1980 on page 247-249. I also did some google searchs and there was a thesis paper on this very same article in the 1990's where two people modeled the antenna described in the Antenna Handbook and said there were errors in the article. I could not get the complete paper that would have gone into the details.

I have built one of these antennas for the 850 mHz range using rigid coax per the article in the ARRL Handbook (with 7 half wave elements, and two 1/4 wave elements per the article) and saw poorer performance compared to a small 1/4 whip antenna connnected to the back of the radio. Not sure what went wrong.

Comments??

Tnx

Jim
"K7ITM" <k7itm@msn.com> wrote in message
news:1143759372.007217.65370@g10g2000cwb.googlegroups.com...
> Measure the velocity factor (at or near the operating frequency)! If
> you are using solid polyethylene dielectric cable, then the v.f. really
> should be close to 0.66. For a flat pattern, you want the
> center-to-center spacing of the elements to be 1/2 wave, considering
> the net velocity factor. I say net because at the junctions between
> elements, it's possible that the effective v.f. is slightly higher than
> in the coax itself. You'd cut the elements long by enough to let you
> solder them together and end up with that 1/2 wave center to center.
> (It's easier and equivalent to measure from top of one element to the
> top of the next element, etc.)
>
> Since the _pattern_ depends mainly on the phasing of the feed system,
> and the phasing is established mainly by the propagation velocity in
> the line, and not by the surrounding environment, putting it next to
> something won't affect the pattern, except that if there are conductors
> in that display you want to mount it to, they may very well screw up
> the pattern by allowing current where you don't want it. Especially if
> there is some piece that's resonant near the operating frequency it
> would be like putting an unwanted parasitic element in a Yagi: not a
> good idea for optimum performance.
>
> OK, so the phasing is designed to get you the right pattern. But the
> phasing is independent of the feedpoint impedance. You need to match
> to that, and you also need to decouple the antenna from nearby
> conductors. Any conductors in the display fall into that category, but

> the feedline from the xcvr also does. A choke balun, and other
> feedline choking, is very highly recommended.
>
> I used to have a web page with quite a bit of text about the why and
> the how of coaxial collinears; it wasn't a construction article, but it
> armed you with enough info that you could go out and make one that
> would work well on pretty much any frequency you might want. It
> included things like why the center-center half wave spacing, and why
> it's slightly better to use foam dielectric cable. If I got enough
> requests, I'd make a revised version of that available, maybe even with
> some pictures this time. Every once in a while I get a request to
> re-print it in a club newsletter, so I know there are some of those
> floating around out there.
>
> Cheers,
> Tom
>

52. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 20:10:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bpkt22hdhhsm63p2hpiko4lud6siemdfkv@4ax.com>
Source record: 61894

On Sat, 1 Apr 2006 12:55:51 -0600, richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Clark wrote:
>"The apparent capacitance based on reported resonances and modeled
>reactance is on the order of 12 -14 pF."
>
>Have you calculated the self-capacitance of a 2in x 12in single-layer
>coil for yourself?

Of course not. There have been a myriad of coils twisted through this thread and I specifically selected the one that started this epic: the subject of Yuri's investigation (2ï¿½" by 10").

>The length to diameter ratio is 6.
>H = .92
>D = 5 cm
>
>HD = 4.6 pF by the formula on page 451 of the "Radiotron Designer`s
>Handbook". Course, formulas are a dime a dozen and disputed.

Hi Richard,

And by virtue of their being offered renders the dismissal of "approaching zero" as cavalier.

And this was "Self Capacitance" and not distributed capacitance? It seems to me that any formula for capacitance that neglects the discussion of surface area must be a very crude estimate. Are we to believe that a coil of
H = .92mm
D = 5 mm
wound with #44 wire has the same 4.6 pF of Self Capacitance?

I can see the dime's worth of value and the source of dispute. Perhaps there is more commentary to be found on page 451 that resolves this and elevates the dime's worth both.

Going further, if I take your coil and merely set the turns count to 18.4, then the coil will self resonate in the 20M band. The capacitance you computed is not very trivial for HF.

73's
Richard Clark, KB7QHC

53. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 20:57:00 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <wOBXf.63447$Jd.31748@newssvr25.news.prodigy.net>
Source record: 61895

Cecil Moore wrote:

> K7ITM wrote:
>
>> I REGULARLY model transmission lines as "lumped elements" and do NOT
>> "presuppose that the speed of light" through them is infinite.
>
>
> I'm interested in knowing how you model a shorted quarter wavelength
> stub using the lumped element model.
>
>> I REGULARLY model op amps as "lumped elements" and do NOT presuppose
>> that the phase shift (and therefore propagation time) through them is
>> infinite.
>
>
> I should hope not! You would never get a signal through them. :-)
>
>> I REGULARLY model inductors as "lumped elements", and do not presuppose
>> that they have no resistances and capacitances parasitic to their
>> inductANCE.
>
>
> Then you are somehow applying a patch to the lumped element model.
> The basic lumped element model assumes no resistance and no
> capacitance. That's how the lumped inductance-only works in EZNEC.
>
>> I find that my models very reliably predict the behaviour I actually
>> observe in the circuits I build. I am served very well by the models I
>> use.
>
>
> Do you use them on 75m bugcatcher coils and obtain an incorrect
> phase shift as W8JI and W7EL have done?
>
>> By the way, what's EE203?
>
>
> The sophmore EE class alluded to by Dr. Corum.

Cecil, there are two Corums and they're both Tesla coil
crackpots. Secondly, Tom is right, you have to have capacitance
to somewhere or your transmission line analogy becomes mired in
absurdities. Third, it isn't enough to think something up in
your head to make a convincing theory, you have to be able to

predict behavior with it. Finally, you have to understand your subject before you even start thinking. I'm surprised you didn't even take the time to make a real coil and at least try to determine its characteristics before wasting everyone's time by starting this thread.
73,
Tom Donaly, KA6RUH

54. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 21:47:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ikst221an80p54isdf173d4lqj7vopp56f@4ax.com>
Source record: 61896

On Sat, 01 Apr 2006 19:26:42 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Do you use them on 75m bugcatcher coils and obtain an incorrect
>phase shift as W8JI and W7EL have done?

All measurements done by everyone are incorrect.

Yours, by your own admission 59% in error, qualifies you for the Gold,
Silver and Bronze medals of Olympian Mistakes. We can strike some
Copper, Tin, and Lead medals, but you would scoop them up too.

55. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 21:56:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <4GCXf.63456$Jd.43417@newssvr25.news.prodigy.net>
Source record: 61897

Tom Donaly wrote:
> Cecil, there are two Corums and they're both Tesla coil
> crackpots. Secondly, Tom is right, you have to have capacitance
> to somewhere or your transmission line analogy becomes mired in
> absurdities.

Would you guys please stop implying falsehoods and make an
attempt to argue in good faith? I didn't say the capacitance
didn't exist. I said it was a secondary effect to the superposition
of the forward and reflected waves. That you are forced to twist
what I said speaks volumes about your argument. Why don't you feel
secure enough in your technical argument not to have to twist my
words into something I didn't say?

> Third, it isn't enough to think something up in
> your head to make a convincing theory, you have to be able to
> predict behavior with it.

I have predicted behavior on http://www.qsl.net/w5dxp/current.htm
with text surrounding http://www.qsl.net/w5dxp/1WLDIP.GIF. That
graphic is not disembodied as you claimed. It is surrounded with
examples and text, more than enough proof for any rational person.

The current at each end of a coil obviously depends upon where it
is installed in the standing wave antenna system. Your wearing of
blinders doesn't hide that technical fact from anyone except yourself.
--
73, Cecil http://www.qsl.net/w5dxp

56. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 22:00:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <lKCXf.63457$Jd.32725@newssvr25.news.prodigy.net>
Source record: 61898

Richard Clark wrote:
> All measurements done by everyone are incorrect.
>
> Yours, by your own admission 59% in error, ...

Uhhhh Richard, those weren't measurements. Those were calculated
results, using formulas out of books. The only measurements that
I have made were of 1. self-resonant frequencies within the
accuracy of an MFJ-259B and 2. standing wave phase measurements
that agree with Kraus and EZNEC. The 59% accuracy was in my
wild ass *guesses* as opposed to the 207% error in W8JI's phase
measurements.
--
73, Cecil http://www.qsl.net/w5dxp

57. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 22:07:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <BQCXf.63460$Jd.8805@newssvr25.news.prodigy.net>
Source record: 61899

w8ji@akorn.net wrote:
> I was complaining about him altering the coil I measured and altering
> the context of what I say.

The real problem is your concept that "current is current",
implying that there is some sort of identity between all
kinds of current. Is DC current identical to RF current?
If not, your "current is current" statement is incorrect.
There are different flavors of current. DC Vs RF is just
one.

Standing wave current Vs traveling wave current is another.
That you don't see the difference between func(kx)*func(wt)
and func(kx +/- wt) is the entire problem. Why are you so
unwilling to discuss that narrow technical topic?

If you would discuss that problem, you might wind up winning
the rest of the argument but you will never know until you do.
--
73, Cecil http://www.qsl.net/w5dxp

58. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 22:13:05 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <RVCXf.394$zk4.326@trnddc05>
Source record: 61900

Richard Clark wrote:
> On Sat, 01 Apr 2006 15:45:48 GMT, John - KD5YI
> <groups5munge@verizon.net> wrote:
>
>
>>Reg Edwards wrote:
>>
>>>John, I'm afraid you havn't the foggiest idea about how a choke balun
>>>works. You are being confused by the Gurus' bafflegab.
>
> ...
>
>>I must be more dense than I realize. I do not see an answer to my question
>>in your reply. If your answer is there, I would appreciate it if you would
>>point it out to me.
>
>
> Hi John,
>
> No, you are no more dense than the next, and Reggie's bafflegab is no
> more distinct than all that which preceded it - once you discard his
> pretension.

Hi, Richard -

I am afraid I do not understand the meaning of "bafflegab". I take it to be a derogatory term indicating that the posting person believes the monologue to be unbelievable. Or something like that. Wikipedia has nothing on the meaning of this word. A search of Dictionary.com produces Gobbledygook which is no help at all. Another search on Dictionary.com of Gobbledygook results in "Unclear, wordy jargon." Is this what is meant?

Thanks,
John

59. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 22:15:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <bYCXf.63464$Jd.43507@newssvr25.news.prodigy.net>
Source record: 61901

John - KD5YI wrote:
> I am afraid I do not understand the meaning of "bafflegab".

A Netscape web search turned up 4890 hits.
--
73, Cecil http://www.qsl.net/w5dxp

60. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 22:31:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9kut229k8f75p8ins72dkivoltj9rtqaod@4ax.com>
Source record: 61902

On Sat, 01 Apr 2006 22:00:49 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>> All measurements done by everyone are incorrect.
>>
>> Yours, by your own admission 59% in error, ...
>
>Uhhhh Richard, those weren't measurements. Those were calculated
>results, using formulas out of books.

The crippling legacy of Xerox research.

>The only measurements that
>I have made were of 1. self-resonant frequencies within the
>accuracy of an MFJ-259B and 2. standing wave phase measurements

Only indeed. Now there's some challenging qualification trials for an
Olympic biathlon.

>that agree with Kraus

Have you been sleeping with Kraus again?

>and EZNEC.

Hmm, the same EZNEC you've impeached for accuracy? When we loop back
to the top of this post to note the 59% error derived from work
accomplished that "weren't measurements" and they agree with your
"measurements" THAT just has to be another hallmark warning sign of
bogus science - self validation.

After 17,433 posts, you certainly work hard to convince yourself. ;-)

61. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 22:53:09 UTC
From: Alan WA4SCA <APBIDDLE@UNITED.NET>
Message-ID: <ut0u22du7uehlk1dtq0hu79vn6eid9n8u8@4ax.com>
Source record: 61903

The LDG tuners are certainly durable. I still use an old AT-11, no longer made, which just keeps on matching everything I throw at it. After a while, you don't even notice the "marbles in a Waring blender sound" when the relays tune. Hi Hi!

--
Alan
WA4SCA

62. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 22:57:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9tvt22l88ibl2lp37o1tgbg4trohq9mldh@4ax.com>
Source record: 61904

On Sat, 01 Apr 2006 22:13:05 GMT, John - KD5YI
<groups5munge@verizon.net> wrote:

>I am afraid I do not understand the meaning of "bafflegab".

Hi John,

It is a term of invention by the greatest practitioner of that art -
Reggie, of course! He introduces nearly every example of it with the
term nestled in his post like a road side flare. Bafflegab is what
was written before you (the second poster to answer) got your say in.

There are similar usage examples of his with "gurus," a term that was
not coined by him, but similarly littered in postings for effect in
his (and imitators') attempts in social climbing. "Gurus" are those
who got to say it first.

So, in the pecking order of it all, "gurus" write "bafflegab" -
unless, of course, you posted first. As a strategic variation on this
theme, there is the inverted-guru-gambit that is something like en
passant. That is, you don't post an answer even if you do manage to
be first, you post how it will be answered wrong by others who you
claim to be gurus.

Reggie has been most influential in these stylistic touches and more
than a few correspondents ape his method. Unfortunately, this also
reveals how quickly novelty descends into clichï¿½; and how wikipedia
trails in social currency.

73's
Richard Clark, KB7QHC

63. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 23:24:11 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <vYDXf.63484$Jd.41941@newssvr25.news.prodigy.net>
Source record: 61905

Also, consider that this is a GAIN antenna (a misnomer, as the "gain"
is created, by takeing power from somewhere else!). This means that the
radiation patern is on the horizon, tho, say 15 degrees above, or below
THAT horizon, the radiation from that "gain antenna" may be a LOSS! and
it gets worse, at higher angles! Kinda like aiming a yagi at a (say , 20
degree angle above (or below) the horizon, wouldn't expect to have a
full signal, if the SOURCE were on the horizon, would you)? A 1/4 wave
whip is much more forgiveing at higher angles of radiation0, while your
"GAIN" antenna has a pattern like a doughnut (power concentrated on
the horizon, limited radiation at angles above, and below that horizon).
This can be a problem in mountainous territory,where a 1/4 wave whip
will out-perform a gain antenna for coverage. As info, Jim NN7K

Jim wrote:
> I saw a construction article in the ARRL Antenna Handbook , 13th Edition,
> 1980 on page 247-249. I also did some google searchs and there was a thesis
> paper on this very same article in the 1990's where two people modeled the
> antenna described in the Antenna Handbook and said there were errors in the
> article. I could not get the complete paper that would have gone into the
> details.
>
> I have built one of these antennas for the 850 mHz range using rigid coax
> per the article in the ARRL Handbook (with 7 half wave elements, and two 1/4
> wave elements per the article) and saw poorer performance compared to a
> small 1/4 whip antenna connnected to the back of the radio. Not sure what
> went wrong.
>
> Comments??
>
> Tnx
>
> Jim
> "K7ITM" <k7itm@msn.com> wrote in message
> news:1143759372.007217.65370@g10g2000cwb.googlegroups.com...
>
>>Measure the velocity factor (at or near the operating frequency)! If
>>you are using solid polyethylene dielectric cable, then the v.f. really
>>should be close to 0.66. For a flat pattern, you want the
>>center-to-center spacing of the elements to be 1/2 wave, considering
>>the net velocity factor. I say net because at the junctions between
>>elements, it's possible that the effective v.f. is slightly higher than
>>in the coax itself. You'd cut the elements long by enough to let you
>>solder them together and end up with that 1/2 wave center to center.
>>(It's easier and equivalent to measure from top of one element to the

>>top of the next element, etc.)
>>
>>Since the _pattern_ depends mainly on the phasing of the feed system,
>>and the phasing is established mainly by the propagation velocity in
>>the line, and not by the surrounding environment, putting it next to
>>something won't affect the pattern, except that if there are conductors
>>in that display you want to mount it to, they may very well screw up
>>the pattern by allowing current where you don't want it. Especially if
>>there is some piece that's resonant near the operating frequency it
>>would be like putting an unwanted parasitic element in a Yagi: not a
>>good idea for optimum performance.
>>
>>OK, so the phasing is designed to get you the right pattern. But the
>>phasing is independent of the feedpoint impedance. You need to match
>>to that, and you also need to decouple the antenna from nearby
>>conductors. Any conductors in the display fall into that category, but
>>the feedline from the xcvr also does. A choke balun, and other
>>feedline choking, is very highly recommended.
>>
>>I used to have a web page with quite a bit of text about the why and
>>the how of coaxial collinears; it wasn't a construction article, but it
>>armed you with enough info that you could go out and make one that
>>would work well on pretty much any frequency you might want. It
>>included things like why the center-center half wave spacing, and why
>>it's slightly better to use foam dielectric cable. If I got enough
>>requests, I'd make a revised version of that available, maybe even with
>>some pictures this time. Every once in a while I get a request to
>>re-print it in a club newsletter, so I know there are some of those
>>floating around out there.
>>
>>Cheers,
>>Tom
>>
>
>
>

64. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 23:36:15 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <P7EXf.50610$2O6.19803@newssvr12.news.prodigy.com>
Source record: 61906

Richard Clark wrote:
> Have you been sleeping with Kraus again?

Yes, I often sleep with Kraus and Balanis. You should
try occasionally reading a reference book instead of
watching The Three Stogies. :-)
--
73, Cecil http://www.qsl.net/w5dxp

65. paint antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 23:37:37 UTC
From: ml <m@di.net>
Message-ID: <m-7E81CB.18373101042006@news.verizon.net>
Source record: 61907

just read a article someplace about a new conductive paint that is going to be used by different sources (pvt/mil) to in effect paint an antenna on a surface. once such use was an 'orbiting' blimp , planes etc to repete signals

ok so i wonder my roof has a flat brick wall it's 40ft tall 40ft wide

if i painted a antenna design think i'd get any useful performance in at least one direction?

unf it didn't state any spec's but it's commercial

just really thinking out louad how a antenna w/little profile but otherwise large surfacce area might work

66. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 23:41:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7dEXf.50613$2O6.23956@newssvr12.news.prodigy.com>
Source record: 61908

Richard Clark wrote:

> John - KD5YI <groups5munge@verizon.net> wrote:
>>I am afraid I do not understand the meaning of "bafflegab".
>
> It is a term of invention by the greatest practitioner of that art -
> Reggie, of course!

Sorry, Reg didn't invent the word. It's been around for more than
half a century.

"Bafflegab - This word hit the newspapers and public notice on 19 January
1952, the day after a plaque was presented to its inventor to mark his
creation of this invaluable word. He was Milton A Smith, assistant general
counsel for the US Chamber of Commerce."
--
73, Cecil http://www.qsl.net/w5dxp

67. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 23:42:04 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <gdEXf.1587$Py4.705@trnddc06>
Source record: 61909

Richard Clark wrote:
> On Sat, 01 Apr 2006 22:13:05 GMT, John - KD5YI
> <groups5munge@verizon.net> wrote:
>
>
>>I am afraid I do not understand the meaning of "bafflegab".
>
>
> Hi John,
>
> It is a term of invention by the greatest practitioner of that art -
> Reggie, of course! He introduces nearly every example of it with the
> term nestled in his post like a road side flare. Bafflegab is what
> was written before you (the second poster to answer) got your say in.
>
> There are similar usage examples of his with "gurus," a term that was
> not coined by him, but similarly littered in postings for effect in
> his (and imitators') attempts in social climbing. "Gurus" are those
> who got to say it first.
>
> So, in the pecking order of it all, "gurus" write "bafflegab" -
> unless, of course, you posted first. As a strategic variation on this
> theme, there is the inverted-guru-gambit that is something like en
> passant. That is, you don't post an answer even if you do manage to
> be first, you post how it will be answered wrong by others who you
> claim to be gurus.
>
> Reggie has been most influential in these stylistic touches and more
> than a few correspondents ape his method. Unfortunately, this also
> reveals how quickly novelty descends into clichï¿½; and how wikipedia
> trails in social currency.
>
> 73's
> Richard Clark, KB7QHC

Richard -

I must say that the meaning is no clearer to me now. Your explanation makes
no sense to me. I apologize for my lack of understanding.

Thanks for trying to explain nevertheless.

Cheers,
John

68. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 23:44:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <TfEXf.50614$2O6.14742@newssvr12.news.prodigy.com>
Source record: 61910

John - KD5YI wrote:
> I must say that the meaning is no clearer to me now. Your explanation
> makes no sense to me. I apologize for my lack of understanding.

Synonym is "Gobblydegook". Does that help?
--
73, Cecil http://www.qsl.net/w5dxp

69. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 23:47:06 UTC
From: ml <m@di.net>
Message-ID: <m-C206A9.18470601042006@news.verizon.net>
Source record: 61911

In article <1143906989.915252.172060@z34g2000cwc.googlegroups.com>,
"KG0WX" <kg0wx@yahoo.com> wrote:

> Depends on how bad a mismatch and how much RF you're
> going to cram through it. For easier setups, like a dipole and
> 100w, A LDG Z100 will work. Need more? Get an LDG AT200Pro
> or 100 pro. If you are QRP, try a Z11, also from LDG.
>
> I've had experience with all the above tuners (except the 200 which
> UPS left on my porch then got stolen.) Anyways, LDG makes
> a fair to excellent product line HOWEVER, My K2's internal tuner
> will tune a worse match than any of the listed LDG tuners. Of course
> if you want a KAT2 tuner, You'll need a K2 to install it in....
>
> I know - you were just looking for an excuse to build a K2, right?
>
> Ken KG0WX

surprized that nobody mentioned the sgc tungers i've been using 2 for
quite some time the mac200 and a sgc237

it tunes all bands/modes a tiny short dipole that i am using down to
never more than 1.2swr tunes in a sec or so and well the 237 is
mostly quite, but being roof mounted moot point

the mac200 has usual relay noise on initial tune, brief click after but
has way cool 4way antenna switch and swr /pwr meters!!

and they tune w/rf by themselfs not that it's unique

i also use ldg great stuff these 2 firms seem to kinda corner the
market

70. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 23:50:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <WkEXf.50615$2O6.49474@newssvr12.news.prodigy.com>
Source record: 61912

ml wrote:
> surprized that nobody mentioned the sgc tungers

My SGC-230 will tune everything including no antenna
at all. I once forgot to install the coil and stinger
on my mobile antenna. The SGC-230 faithfully tuned the
three foot bottom section to resonance on 75m. :-)
--
73, Cecil http://www.qsl.net/w5dxp

71. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 23:51:30 UTC
From: Dan Richardson <k6mhe>
Message-ID: <ne4u225692ke491sivf4c3v7m4o1gd6oam@4ax.com>
Source record: 61913

On Sat, 01 Apr 2006 23:42:04 GMT, John - KD5YI
<groups5munge@verizon.net> wrote:

>Richard -
>
>I must say that the meaning is no clearer to me now. Your explanation makes
>no sense to me. I apologize for my lack of understanding.
>
>Thanks for trying to explain nevertheless.
>
>Cheers,
>John

How about "doubletalk"?

That comes pretty close.

Regards,
Danny, K6MHE

72. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-01 23:55:15 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <DpEXf.1588$Py4.1238@trnddc06>
Source record: 61914

Dan Richardson <k6mhe<at>adelphia wrote:
> On Sat, 01 Apr 2006 23:42:04 GMT, John - KD5YI
> <groups5munge@verizon.net> wrote:
>
>
>>Richard -
>>
>>I must say that the meaning is no clearer to me now. Your explanation makes
>>no sense to me. I apologize for my lack of understanding.
>>
>>Thanks for trying to explain nevertheless.
>>
>>Cheers,
>>John
>
>
> How about "doubletalk"?
>
> That comes pretty close.
>
> Regards,
> Danny, K6MHE

Thanks, Danny.

John

73. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 00:00:48 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <QuEXf.5165$Up2.1408@trnddc07>
Source record: 61915

"Jim" <jbollit@verizon.net> wrote in message
news:4HAXf.10092$dU3.6515@trnddc01...
>I saw a construction article in the ARRL Antenna Handbook , 13th Edition,
>1980 on page 247-249. I also did some google searchs and there was a
>thesis paper on this very same article in the 1990's where two people
>modeled the antenna described in the Antenna Handbook and said there were
>errors in the article. I could not get the complete paper that would have
>gone into the details.
>
> I have built one of these antennas for the 850 mHz range using rigid coax
> per the article in the ARRL Handbook (with 7 half wave elements, and two
> 1/4 wave elements per the article) and saw poorer performance compared to
> a small 1/4 whip antenna connnected to the back of the radio. Not sure
> what went wrong.
>
> Comments??
>
> Tnx
>
> Jim
> "K7ITM" <k7itm@msn.com> wrote in message

Hi Jim

A properly done colinear array of 8 half wave elements will sure have a
highly directive pattern in the Elevation plane. With some luck and low
loss components you might get 8 or 9 dBi. But, the pattern will have a
pattern max thats broadside to the axis of the colinear array at only one
frequency. That pattern max will squint up and down (with respect to the
horizon) as the frequency varies from that center frequency.
I'd bet that you will be able to realize appreciable dirrectivity from an
array of 7 lengths of RG-6 with 2 quarterwave added elements. But,
developing the array to provide low VSWR and best squint angle at any chosen
frequency will demant some "field testing".
You probably already knew that. I just wasnt sure. Besides I have wasted
alot of time developing a very similar colinear array for commercial use.

Jerry KD6JDJ

74. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 00:18:51 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <122u63mbiu4b725@corp.supernews.com>
Source record: 61916

John - KD5YI wrote:
> Richard Clark wrote:
>
>> On Sat, 01 Apr 2006 22:13:05 GMT, John - KD5YI
>> <groups5munge@verizon.net> wrote:
>>
>>
>>> I am afraid I do not understand the meaning of "bafflegab".
>>
>>
>>
>> Hi John,
>>
>> It is a term of invention by the greatest practitioner of that art -
>> Reggie, of course! He introduces nearly every example of it with the
>> term nestled in his post like a road side flare. Bafflegab is what
>> was written before you (the second poster to answer) got your say in.
>>
>> There are similar usage examples of his with "gurus," a term that was
>> not coined by him, but similarly littered in postings for effect in
>> his (and imitators') attempts in social climbing. "Gurus" are those
>> who got to say it first.
>>
>> So, in the pecking order of it all, "gurus" write "bafflegab" -
>> unless, of course, you posted first. As a strategic variation on this
>> theme, there is the inverted-guru-gambit that is something like en
>> passant. That is, you don't post an answer even if you do manage to
>> be first, you post how it will be answered wrong by others who you
>> claim to be gurus.
>>
>> Reggie has been most influential in these stylistic touches and more
>> than a few correspondents ape his method. Unfortunately, this also
>> reveals how quickly novelty descends into clichï¿½; and how wikipedia
>> trails in social currency.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>
>
> Richard -
>
> I must say that the meaning is no clearer to me now. Your explanation
> makes no sense to me. I apologize for my lack of understanding.

>
> Thanks for trying to explain nevertheless.
>
> Cheers,
> John
John;

The term has been used in the TV program from the 70's "Battlestar Galactica". It means spouting "BULLSHIT".

Dave N

75. Re: paint antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 00:22:30 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <122u6ah1aa5iv2e@corp.supernews.com>
Source record: 61917

ml wrote:

> just read a article someplace about a new conductive paint that is going
> to be used by different sources (pvt/mil) to in effect paint an antenna
> on a surface. once such use was an 'orbiting' blimp , planes etc to
> repete signals
>
>
> ok so i wonder my roof has a flat brick wall it's 40ft tall 40ft wide
>
> if i painted a antenna design think i'd get any useful performance in at
> least one direction?
>
> unf it didn't state any spec's but it's commercial
>
>
> just really thinking out louad how a antenna w/little profile but
> otherwise large surfacce area might work

Actually if the paint is continuous in it's conductivity there is no
reason why a painted antenna picture would not work. Tuning it might be
problematic but would work.
Try it and report back.

Dave WD9BDZ

76. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 01:37:35 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <ilau221ckr1b7nf04srurmdpuk1cdf5981@4ax.com>
Source record: 61918

On 31 Mar 2006 16:34:07 -0800, w8ji@akorn.net wrote:

[snip]

>I'm sure the 800-post thread will continue another 800 posts. People
>must be bored.

You've noticed :-)

77. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 02:17:14 UTC
From: Dan Richardson <k6mhe>
Message-ID: <fvcu221qj7j8jnngfo69lpd048eumgo27j@4ax.com>
Source record: 61919

On Sat, 01 Apr 2006 18:37:35 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>On 31 Mar 2006 16:34:07 -0800, w8ji@akorn.net wrote:
>
>[snip]
>
>>I'm sure the 800-post thread will continue another 800 posts. People
>>must be bored.
>
>You've noticed :-)

Boy, ain't that the truth. I'm putting into my kill filter.

78. Re: Balloon lifted wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 02:22:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <122udalh0vekk4e@corp.supernews.com>
Source record: 61920

According to http://www.llnl.gov/es_and_h/hsm/doc_18.04/doc18-04.html,
the flammability range of hydrogen is 4 - 75% by volume in air. But
that's still a wide range, much more than I incorrectly implied. Thanks
for the correction.

Roy Lewallen, W7EL

Jim Higgins wrote:
> On Wed, 29 Mar 2006 18:22:37 -0800, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>> Hydrogen is explosive only in the correct, fairly narrow, range of
>> mixtures with oxygen.
>
> That "fairly narrow" explosive range would be from about 15% - 90% by
> volume in oxygen. For flammability (including explosion), the range
> is about 5% - 94% by volume.
>
> In air the ranges are about 18% - 59% for explosion and about 4% - 74%
> for flammability - including explosion.
>
>
>> A big bag of hydrogen won't explode. It'll burn
>> only at the outside edges where it's mixing with oxygen. It'll rapidly
>> disperse to a point where it's too lean a mixture to burn, so I believe
>> there's only a fairly narrow physical region around a blob of pure
>> hydrogen where it's flammable.
>
>
> Bear in mind that "too lean" is under 5% in pure oxygen or in air.
>
>
>> Hydrogen stopped being used for dirigibles more
>> because of the danger perceived by the public
>> after seeing the Hindenburg than by real danger.
>
>
> I'm not getting into that debate as there seem to be as many different
> versions of the facts as there are theories needing facts to support
> them.
>
> If you want to read some really bad science, keep abreast of the
> developing lobby touting a "Hydrogen Economy."

79. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 03:02:46 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <b6HXf.5631$z7.1805@bignews3.bellsouth.net>
Source record: 61921

"Alan WA4SCA" <APBIDDLE@UNITED.NET> wrote in message
news:ut0u22du7uehlk1dtq0hu79vn6eid9n8u8@4ax.com...
> The LDG tuners are certainly durable. I still use an old AT-11, no
> longer made, which just keeps on matching everything I throw at it.
> After a while, you don't even notice the "marbles in a Waring blender
> sound" when the relays tune. Hi Hi!
>
>
> --
> Alan
> WA4SCA

I have the Pro100 and it will try to tune up a garage door! There are few things it won't try to tune. I have the Cobra Ultralite Senior antenna and I really enjoy the ability to go from 160-10 Meters with one wire antenna.

73

Jerry
K4KWH

80. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 03:39:41 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <442f477d$0$7329$39cecf19@news.twtelecom.net>
Source record: 61922

Tom Donaly wrote:

>
>
> Cecil, there are two Corums and they're both Tesla coil
> crackpots. Secondly, Tom is right, you have to have capacitance
> to somewhere or your transmission line analogy becomes mired in
> absurdities. Third, it isn't enough to think something up in
> your head to make a convincing theory, you have to be able to
> predict behavior with it. Finally, you have to understand your
> subject before you even start thinking. I'm surprised you didn't
> even take the time to make a real coil and at least try to
> determine its characteristics before wasting everyone's
> time by starting this thread.
> 73,
> Tom Donaly, KA6RUH

Tom,

You, and everyone else is, as we put it in the midwest, and probably
elsewhere, "pissing into the wind".

You cannot win an argument with someone that does not acknowledge reality.

tom
K0TAR

81. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 03:55:43 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <QTHXf.31461$67.21959@bignews6.bellsouth.net>
Source record: 61923

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:indt22h9510krnopa8m4n1sthokogfllvr@4ax.com...
> On 1 Apr 2006 08:23:24 -0800, "JIMMIE" <JIMMIEDEE123@YAHOO.COM> wrote:
>
>>Would it be
>>appropriate to say that an EH antenna is more like a coupler that
>>utilises the antenna support structure(tower/mast) and feedline as the
>>radiating elements of the antenna?.
>
> Hi Jimmie,
>
> Sounds fair. You may be disappointed with such a short answer. So if
> you simply search Google groups using EH antenna as key terms, you
> will find more discussion, but it will all reduce to your short
> observation above.
>
> 73's
> Richard Clark, KB7QHC

I would suppose that under the right conditions an antenna like this could perform reasonably well if it were properly set up and I can see how getting consistent results would be difficult. This would leave some people to swear by it while other swear at it.

82. Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 04:00:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <jq2dnd6yo-Ef0bLZRVnyiA@bt.com>
Source record: 61924

NOW AVAILABLE ** New Program "TRANCO_1.exe"

This program analyses performance as a transmission line, of a
single-layer solenoid coil which may be inserted in an antenna wire.
The coil itself may be used as a very short vertical antenna at its
1/4-wave resonant frequency.

From the input data of length, diameter and number of turns, the
program calculates inductance, capacitance and resistance of the
equivalent transmission line. The secondary constants of
characteristic impedance Zo, phase shift, velocity factor, and
attenuation are calculated. Also the feedpoint input impedance, R+jX,
for when a coil is used as an antenna.

Because of the sensitivity to the environment of such an antenna and
its high Q it will be necessary to trim antenna length to a particular
wanted resonant frequency.

Download TRANCO_1 in a few seconds from website below and run
immediately. Filesize = 38 Kbytes. (It's at the bottom of the list.)

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

83. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 04:43:51 UTC
From: Jim <jbollit@verizon.net>
Message-ID: <bEIXf.2939$e11.1541@trnddc02>
Source record: 61925

Jim,

Thanks for info. You are correct as I do live in "hilly" area. I raised
the antenna up to 30 feet and there was a big difference in signal strength.
I do not have equiment to measure the difference accurately, but on an Icom
R-7000 there was 1 s unit (or so) difference but there was much lower noise
and better readability.

Thanks again

Jim
"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
news:vYDXf.63484$Jd.41941@newssvr25.news.prodigy.net...
> Also, consider that this is a GAIN antenna (a misnomer, as the "gain"
> is created, by takeing power from somewhere else!). This means that the
> radiation patern is on the horizon, tho, say 15 degrees above, or below
> THAT horizon, the radiation from that "gain antenna" may be a LOSS! and
> it gets worse, at higher angles! Kinda like aiming a yagi at a (say , 20
> degree angle above (or below) the horizon, wouldn't expect to have a
> full signal, if the SOURCE were on the horizon, would you)? A 1/4 wave
> whip is much more forgiveing at higher angles of radiation0, while your
> "GAIN" antenna has a pattern like a doughnut (power concentrated on
> the horizon, limited radiation at angles above, and below that horizon).
> This can be a problem in mountainous territory,where a 1/4 wave whip
> will out-perform a gain antenna for coverage. As info, Jim NN7K
>
>
> Jim wrote:
>> I saw a construction article in the ARRL Antenna Handbook , 13th Edition,
>> 1980 on page 247-249. I also did some google searchs and there was a
>> thesis paper on this very same article in the 1990's where two people
>> modeled the antenna described in the Antenna Handbook and said there were
>> errors in the article. I could not get the complete paper that would
>> have gone into the details.
>>
>> I have built one of these antennas for the 850 mHz range using rigid coax
>> per the article in the ARRL Handbook (with 7 half wave elements, and two
>> 1/4 wave elements per the article) and saw poorer performance compared to
>> a small 1/4 whip antenna connnected to the back of the radio. Not sure
>> what went wrong.
>>
>> Comments??
>>
>> Tnx
>>

>> Jim
>> "K7ITM" <k7itm@msn.com> wrote in message
>> news:1143759372.007217.65370@g10g2000cwb.googlegroups.com...
>>
>>>Measure the velocity factor (at or near the operating frequency)! If
>>>you are using solid polyethylene dielectric cable, then the v.f. really
>>>should be close to 0.66. For a flat pattern, you want the
>>>center-to-center spacing of the elements to be 1/2 wave, considering
>>>the net velocity factor. I say net because at the junctions between
>>>elements, it's possible that the effective v.f. is slightly higher than
>>>in the coax itself. You'd cut the elements long by enough to let you
>>>solder them together and end up with that 1/2 wave center to center.
>>>(It's easier and equivalent to measure from top of one element to the
>>>top of the next element, etc.)
>>>
>>>Since the _pattern_ depends mainly on the phasing of the feed system,
>>>and the phasing is established mainly by the propagation velocity in
>>>the line, and not by the surrounding environment, putting it next to
>>>something won't affect the pattern, except that if there are conductors
>>>in that display you want to mount it to, they may very well screw up
>>>the pattern by allowing current where you don't want it. Especially if
>>>there is some piece that's resonant near the operating frequency it
>>>would be like putting an unwanted parasitic element in a Yagi: not a
>>>good idea for optimum performance.
>>>
>>>OK, so the phasing is designed to get you the right pattern. But the
>>>phasing is independent of the feedpoint impedance. You need to match
>>>to that, and you also need to decouple the antenna from nearby
>>>conductors. Any conductors in the display fall into that category, but
>>>the feedline from the xcvr also does. A choke balun, and other
>>>feedline choking, is very highly recommended.
>>>
>>>I used to have a web page with quite a bit of text about the why and
>>>the how of coaxial collinears; it wasn't a construction article, but it
>>>armed you with enough info that you could go out and make one that
>>>would work well on pretty much any frequency you might want. It
>>>included things like why the center-center half wave spacing, and why
>>>it's slightly better to use foam dielectric cable. If I got enough
>>>requests, I'd make a revised version of that available, maybe even with
>>>some pictures this time. Every once in a while I get a request to
>>>re-print it in a club newsletter, so I know there are some of those
>>>floating around out there.
>>>
>>>Cheers,
>>>Tom
>>>
>>
>>

84. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 04:45:55 UTC
From: Jim <jbollit@verizon.net>
Message-ID: <7GIXf.1633$Py4.193@trnddc06>
Source record: 61726

Jerry,

Thanks for input. I agree, the effort of using rigid coax and putting it
all together (without equipment to measure accurately) is an investment in
time.

Jim
"Jerry Martes" <j.jmartes@verizon.net> wrote in message
news:QuEXf.5165$Up2.1408@trnddc07...
>
> "Jim" <jbollit@verizon.net> wrote in message
> news:4HAXf.10092$dU3.6515@trnddc01...
>>I saw a construction article in the ARRL Antenna Handbook , 13th Edition,
>>1980 on page 247-249. I also did some google searchs and there was a
>>thesis paper on this very same article in the 1990's where two people
>>modeled the antenna described in the Antenna Handbook and said there were
>>errors in the article. I could not get the complete paper that would have
>>gone into the details.
>>
>> I have built one of these antennas for the 850 mHz range using rigid coax
>> per the article in the ARRL Handbook (with 7 half wave elements, and two
>> 1/4 wave elements per the article) and saw poorer performance compared to
>> a small 1/4 whip antenna connnected to the back of the radio. Not sure
>> what went wrong.
>>
>> Comments??
>>
>> Tnx
>>
>> Jim
>> "K7ITM" <k7itm@msn.com> wrote in message
>
> Hi Jim
>
> A properly done colinear array of 8 half wave elements will sure have a
> highly directive pattern in the Elevation plane. With some luck and low
> loss components you might get 8 or 9 dBi. But, the pattern will have a
> pattern max thats broadside to the axis of the colinear array at only one
> frequency. That pattern max will squint up and down (with respect to the
> horizon) as the frequency varies from that center frequency.
> I'd bet that you will be able to realize appreciable dirrectivity from an
> array of 7 lengths of RG-6 with 2 quarterwave added elements. But,
> developing the array to provide low VSWR and best squint angle at any
> chosen frequency will demant some "field testing".
> You probably already knew that. I just wasnt sure. Besides I have wasted

> alot of time developing a very similar colinear array for commercial use.
>
> Jerry KD6JDJ
>
>

85. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 05:12:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <kPmdnY9DDrL9wLLZRVnysg@bt.com>
Source record: 61727

John, what with the unwanted interference from Richard Clark, you'll just have to accept the fact that the ferrite material has little or no effect on transmission through the short length of transmission line, be it coax or twin-line, wound on the ferrite core.

I can only repeat that, insofar as the normal transmission current is concerned, the currents in the pair of wires flow in opposite directions and therefore neutralise each other. No flux is induced in the ferrite.

The unwanted longitudinal current flows equally and in the same direction along both wires and therefore comes under the influence of the choke.

It is all so beautifully simple!

Reg.

86. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 06:04:49 UTC
From: Howard W3CQH <hgorden@adelphia.net>
Message-ID: <euednQLks5gc9LLZnZ2dnUVZ_sKdnZ2d@adelphia.com>
Source record: 61728

I guess I should have been a little more specific. Since I live in an antenna restricted community, I have been able to install (stealth) 360 ft loop, half of which is on my roof (wire thru TV insulated standoffs), and the rest of the loop in my attic, fed with RG8U at the center connector. Because of where the center connector of the antenna, and where my rig is located, I have to run approx, 70ft of coax feed. I am currently using an MFJ949 manual tuner, but that is getting to be a real pain when band switching at the transmitter, and am seeing approx 1.5:1 across all the bands, but I am sure that if I could remote the tuner to the center connector, I would get a better match.
73's

"Howard W3CQH" <hgorden@adelphia.net> wrote in message
news:qfSdnQtbAur6ZbDZnZ2dnUVZ_sadnZ2d@adelphia.com...
> Looking to purchase an auto antenna tuner that covers from approx 1.6 -
> 60Mhz. Predominantly for coax.
> Any suggestions?
>
> 73's
>

87. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 06:44:33 UTC
From: danda <iamsomeone@somewhere.com>
Message-ID: <lpKXf.27937$Nh7.9183@newsfe4-win.ntli.net>
Source record: 61729

"Jerry" <joxendi@bellsouth.net> wrote in message
news:b6HXf.5631$z7.1805@bignews3.bellsouth.net..

I have the Pro100 and it will try to tune up a garage door! There are few
things it won't try to tune. I have the Cobra Ultralite Senior antenna and I
really enjoy the ability to go from 160-10 Meters with one wire antenna.

73

Jerry
K4KWH

Jerry
I see you have a Cobra Ultralite senior what is your opinion of it I
have just hade one shipped to the UK, what is your opinion of it? waiting
for a good weekend to get it up in the air.

88. Cobra Ultrlite Senior

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 07:06:10 UTC
From: danda <iamsomeone@somewhere.com>
Message-ID: <CJKXf.2652$ic1.574@newsfe5-win.ntli.net>
Source record: 61730

Has anybody used a Cobra Ultaralite antenna any opinions please

89. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 08:01:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l21v22db2uu1rie0g51qv2fbs2kc7po2om@4ax.com>
Source record: 61731

On Sat, 1 Apr 2006 22:55:43 -0500, "jimmiefender@bellsouth.net"
<jimmiedee@bellsouth.net> wrote:

>I would suppose that under the right conditions an antenna like this could
>perform reasonably well if it were properly set up and I can see how getting
>consistent results would be difficult. This would leave some people to swear
>by it while other swear at it.

Hi Jimmie,

This could be said of almost any design outside of the canon of
average antennas. In that regard, there's no point in going to all
the fuss'n'muss with the eh, just put up a stick and match to it.

73's
Richard Clark, KB7QHC

90. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 08:02:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <vYydnecTjaj8GLLZRVny1A@bt.com>
Source record: 61732

To satisfy demands for disclosure of the source code of my programs I
have made the source code of program TRANCO_1 available from my
website.

It may be of interest to antagonists in the "current through coils"
civil war.

The source code text, which is almost readable using non-proportional
spaced text readers, can be found in "Download Pascal source code from
here" section on the Index page.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

91. how to reduce ghost from a wall mounted uhf antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 09:23:56 UTC
From: beerismygas@yahoo.com
Message-ID: <1143969836.641578.171360@g10g2000cwb.googlegroups.com>
Source record: 61733

i have a uhf tv antenna on my balcony. i am getting ghosting.

i think the ghosting is from signals bouncing off the balcony wall and hitting the antenna a second time.

apart from building a 100' tower to raise my antenna into the open sky, is there any way to keep the wall from reflecting ? can i put some sort of foil behind the antenna to block it out ?or cover the wall with some non reflective material?

thx

92. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 10:04:42 UTC
From: Dan Andersson <dan@andersson.co.uk>
Message-ID: <Ri6dnWCDRu4uPLLZSa8jmw@karoo.co.uk>
Source record: 61734

JIMMIE wrote:

> Recently heard about EH antennas and have done some research into them
> including reading some articles in this newsgroup. It is begining ti
> sound very much like my friends homemade FM/TV antenna. My friend being
> short on money fastened an old bicycle rim to a piece of galvanized
> pipe(axel stuck in the pipe) Feedline was connected from the center o
> the wheel to a point on the outer rim. I had repeated told my friend
> that something like this would never work and he demonstrated to me
> that it did.. I theink the EH antenna is a lot like this old wheel,
> just about anything placed on a mast with work to some degree. In this
> case a very poor antenna allowed my friend to receive 2 TV stations and
> 4 or 5 FM radio stations. This was a vast improvement over the 0 tv and
> Fm stations he was receving before putting up his "antenna" Would it be
> appropriate to say that an EH antenna is more like a coupler that
> utilises the antenna support structure(tower/mast) and feedline as the
> radiating elements of the antenna?.

Jimmie,

There have been, and will continue to be - a lot of discussions about the EH-Antenna. Some of the discussions are bordering to physical wars and other postings are just plain simple stupid. As usual in other words...

One of the thing that are once and for all settled is that the antenna function does not rely on coupling to other metallic objects. That myth is so totally debunked so I won't even go there. Another fight is regarding the efficiency.

The current discussions surrounding the EH is about any possible phase shift as the main reason for the function.

If you are interested inthe EH-Antenna for hamradio use, browse to www.eh-antenna.com. If you intend to use it commecially, it's patended and you need to buy a license or a ready made antenna.
The EH is used for RFID and for vehicle communication as well as telemetry. The ham EH's are only a very small fraction of the market.

And no, I don't think your friend made up an EH antenna.

There are some tests done in Radcom and possibly other ham magazines.

The EH-Antenna is just another small antenna with it's preferred field of application. It's not to be compared with any directional antenna as it's mostly omnidirectional. Also, the EH have to be mounted 1/4 wavelength up to work according to the designers.

The EH that receives most of the appraisal is the 160m version. Probably because it's very difficult to have a dipole or longwire up for 160m... so when compared to a 160m dipole 10 meter above ground, the EH outperforms that dipole... When comparing antennas close to ground, it's often a case of "the least worse" functioning antenna and the EH performance is reported to deteriorate lesser than wire antennas when close to ground and have a better S/N.

The VHF EH's outperforms most typical VHF omnidirectional antennas even i the difference in size is not that great compared to traditional antennas.

Very few hams are neutral in the view of the EH antenna so be prepared to whip up a storm if you build one and claim success or failure.

BTW! If you intend to try for yourself, do not use ferrous material for the build. That will bring down the resulting bandwidth by 70% or so!

Also, a dipole or wire antenna gives you a multiband antenna, especially with an antenna tuner.
The EH is a single band antenna only and cannot be tweaked by an antenna tuner. For a complete coverage of the HF ham bands you need many antennas.

Cheers

Dan / M0DFI

93. Re: how to reduce ghost from a wall mounted uhf antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 10:49:13 UTC
From: BKR <TAKEOUTTHISPARTrchvid7@lycos.comREMOVE>
Message-ID: <442fac47@nntp.zianet.com>
Source record: 61735

What sort of antenna is it? A corner reflector, yagi or UHF periodic
antenna should provide some relief.

beerismygas@yahoo.com wrote:
> i have a uhf tv antenna on my balcony. i am getting ghosting.
>
> i think the ghosting is from signals bouncing off the balcony wall and
> hitting the antenna a second time.
>
> apart from building a 100' tower to raise my antenna into the open sky,
> is there any way to keep the wall from reflecting ? can i put some sort
> of foil behind the antenna to block it out ?or cover the wall with some
> non reflective material?
>
> thx
>

94. Re: paint antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 10:56:50 UTC
From: BKR <TAKEOUTTHISPARTrchvid7@lycos.comREMOVE>
Message-ID: <442fae11$1@nntp.zianet.com>
Source record: 61736

There is a big problem with that idea because common brick absorbes
water content and will provide a very lossy substrate.
The resonant frequency will also be affected due to capacitance.

ml wrote:

> just read a article someplace about a new conductive paint that is going
> to be used by different sources (pvt/mil) to in effect paint an antenna
> on a surface. once such use was an 'orbiting' blimp , planes etc to
> repete signals
>
>
> ok so i wonder my roof has a flat brick wall it's 40ft tall 40ft wide
>
> if i painted a antenna design think i'd get any useful performance in at
> least one direction?
>
> unf it didn't state any spec's but it's commercial
>
>
> just really thinking out louad how a antenna w/little profile but
> otherwise large surfacce area might work

95. Tower?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 11:04:17 UTC
From: DwiB <dwibos@netnet.net>
Message-ID: <1143975857.186876.315950@i40g2000cwc.googlegroups.com>
Source record: 61737

I'm looking for a crank-up or fold-over or self-supporting tower 50ft.
or higher. No guys, prefer aluminum on the standalone.

Please state type, mfr., condition, and pictures if possible. Prefer to

pickup anywhere in the midwest but not limited to that.

thanks 73 Dwight W9YQ (nr. Green Bay)

96. Re: how to reduce ghost from a wall mounted uhf antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 11:32:35 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <442fb58c_4@newsfeed.slurp.net>
Source record: 61738

<beerismygas@yahoo.com> wrote
>i have a uhf tv antenna on my balcony. i am getting ghosting.
>
> i think the ghosting is from signals bouncing off the balcony wall and
> hitting the antenna a second time.

An r-f reflection capable of producing a ghost in an analog TV broadcast signal needs to have something like a 1/2 microsecond minimum propagation delay from the direct signal. That takes a path difference of ~492 feet, so your balcony wall probably is not be the source of your ghost.

More likely it is from a reflecting surface (building, sign, water tower, etc) somewhere near the direct path from the TV tx to your antenna. You might try a corner reflector or yagi, and aim it in various directions (not necessarily toward the TV tx) looking a for a cleaner overall signal.

RF

97. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 11:33:53 UTC
From: w8ji@akorn.net
Message-ID: <1143977633.320987.306800@e56g2000cwe.googlegroups.com>
Source record: 61739

Dan Andersson wrote:

> The EH-Antenna is just another small antenna with it's preferred field of
> application. It's not to be compared with any directional antenna as it's
> mostly omnidirectional. Also, the EH have to be mounted 1/4 wavelength up
> to work according to the designers.

The EH antenna theory is total rubbish. It is physically impossible to
mix an electric field and a magnetic field and generate EM radation.

The basic operating premise of the EH antenna is a lie.

> The EH that receives most of the appraisal is the 160m version. Probably
> because it's very difficult to have a dipole or longwire up for 160m... so
> when compared to a 160m dipole 10 meter above ground, the EH outperforms
> that dipole

Nonsense. You won't find a single scientifically made test where an EH
antenna outperforms a similar size regular short monopole.

On 160 meters EH antennas are typically 10 dB down or more from very
poor dipoles.

If an EH antenna beats another antenna it is always tracible back to
the other antenna being grossly poor. There isn't a single professional
evaluation of the EH antenna in the world that has ever shown it to be
better than any other antenna the same physical size, and most show it
is actually worse.

If you polled a large cross section of people about a very poor leader
of a country, you'd find a significant percentage claiming the very
poor leader was a good leader despite very clear evidence to the
contrary. The EH antenna and any other widespread myth is no different.
It's all about blind faith and spin rather than facts. Some people just
don't care about facts, and prefer to live by faith.

The EH antenna will probably go on for years, despite the fact it has
been proven over and over to be a fraud.

73 Tom

98. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 12:53:43 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <442fc892_5@newsfeed.slurp.net>
Source record: 61740

"Jerry Martes" wrote
> A properly done colinear array of 8 half wave elements will sure have a
> highly directive pattern in the Elevation plane. With some luck and low
> loss components you might get 8 or 9 dBi. But, the pattern will have a
> pattern max thats broadside to the axis of the colinear array at only one
> frequency. That pattern max will squint up and down (with respect to the
> horizon) as the frequency varies from that center frequency.

The change with frequency in the angle of the elevation pattern maximum field is the result of the varying relative r-f phase vs the operating frequency that is applied to the radiating elements in this design.

This can be eliminated by using a vertically stacked array of identical radiators fed via an n-way power divider, whose output connects to feed cables of equal electical lengths to each element of the array. The directivity (gain) and sidelobe distribution of this type of array will change with operating frequency, but the elevation angle at which the peak field is directed will remain the same, regardless of the input frequency.

This approach is used in broadcast transmit antenna designs giving good signal coverage over large sections of the UHF TV band, or the entire FM band.

RF

99. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 13:15:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <88QXf.54712$F_3.23945@newssvr29.news.prodigy.net>
Source record: 61741

Tom Ring wrote:
> You cannot win an argument with someone that does not acknowledge reality.

I've found that out, Tom. None of you guys are willing to
answer any technical questions about the material presented
on my web page at: http://www.qsl.net/w5dxp/current.htm,
in particular: http://www.qsl.net/w5dxp/1WLDIP.GIF

The current through a coil placed in a standing wave
environment either depends upon where it is placed in
that environment or it doesn't. It's not rocket science.

The gurus have refused to discuss at least 95% of my
technical questions. No amount of personal wise cracks,
like yours above, will erase that fact.
--
73, Cecil http://www.qsl.net/w5dxp

100. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 13:21:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ddQXf.54713$F_3.19833@newssvr29.news.prodigy.net>
Source record: 61742

Reg Edwards wrote:
> John, what with the unwanted interference from Richard Clark, you'll
> just have to accept the fact that the ferrite material has little or
> no effect on transmission through the short length of transmission
> line, be it coax or twin-line, wound on the ferrite core.

Maybe it would help to say "... on transmission of differential
signals through the short length of transmission line ...".
--
73, Cecil http://www.qsl.net/w5dxp

101. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 13:37:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <GsQXf.54718$F_3.51516@newssvr29.news.prodigy.net>
Source record: 61743

Reg Edwards wrote:
> It may be of interest to antagonists in the "current through coils"
> civil war.

The nature of traveling wave current and standing wave current
is different. Does your program take that into account?

The "current through coils" argument boils down to the ones who
understand standing wave currents in a standing wave antenna and
those who refuse to take the time to understand.

Quoting "Optics", by Hecht: "E(x,t) = 2Eo*sin(kx)*cos(wt)
This is the equation for a STANDING or STATIONARY WAVE, as
opposed to a traveling wave (Fig. 7.10). Its profile does
not move through space. ... [The phase] doesn't rotate at
all, and the resultant wave it represents doesn't progress
through space - it's a standing wave."

Until the gurus take the time to understand the nature of
standing waves in standing waves antennas, they will keep
committing the same mental blunders over and over.
--
73, Cecil http://www.qsl.net/w5dxp

102. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 14:30:33 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <deRXf.2764$qe7.36@trnddc04>
Source record: 61744

"Richard Fry" <rfry@adams.net> wrote in message
news:442fc892_5@newsfeed.slurp.net...
> "Jerry Martes" wrote
>> A properly done colinear array of 8 half wave elements will sure have a
>> highly directive pattern in the Elevation plane. With some luck and low
>> loss components you might get 8 or 9 dBi. But, the pattern will have a
>> pattern max thats broadside to the axis of the colinear array at only one
>> frequency. That pattern max will squint up and down (with respect to the
>> horizon) as the frequency varies from that center frequency.
> ---------------
>
> The change with frequency in the angle of the elevation pattern maximum
> field is the result of the varying relative r-f phase vs the operating
> frequency that is applied to the radiating elements in this design.
>
> This can be eliminated by using a vertically stacked array of identical
> radiators fed via an n-way power divider, whose output connects to feed
> cables of equal electical lengths to each element of the array. The
> directivity (gain) and sidelobe distribution of this type of array will
> change with operating frequency, but the elevation angle at which the peak
> field is directed will remain the same, regardless of the input frequency.
>
> This approach is used in broadcast transmit antenna designs giving good
> signal coverage over large sections of the UHF TV band, or the entire FM
> band.
>
> RF

Hi Richard

Do you have a sketch of the harness a guy might use to feed that 8 dipole
colinear array? Remember, this colinear antenna is mounted on the back of
a Lap Top Computer for WiFi use.

Jerry
>

103. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 14:39:06 UTC
From: David J Windisch <davidjw@cinci.rr.com>
Message-ID: <emRXf.77596$UZ5.70008@tornado.ohiordc.rr.com>
Source record: 61745

<BIGSMILE>John, you've been snookered ;o)))
73, Dave, N3HE

"John - KD5YI" <groups5munge@verizon.net> wrote in message
news:gdEXf.1587$Py4.705@trnddc06...
> Richard Clark wrote:
>> On Sat, 01 Apr 2006 22:13:05 GMT, John - KD5YI
>> <groups5munge@verizon.net> wrote:
>>
>>
>>>I am afraid I do not understand the meaning of "bafflegab".
>>
>>
>> Hi John,
>>
BIGSNIPOFWELLCRAFTEDBAFFLEGAB
how wikipedia
>> trails in social currency.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>
> Richard -
>
> I must say that the meaning is no clearer to me now. Your explanation
> makes no sense to me. I apologize for my lack of understanding.
>
> Thanks for trying to explain nevertheless.
>
> Cheers,
> John

104. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 15:09:20 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <udKdnSEl-M7SdLLZRVnygw@bt.com>
Source record: 61747

"Cecil Moore" wrote
> Maybe it would help to say "... on transmission of differential
> signals through the short length of transmission line ...".

==========

No, it wouldn't. Help not needed. KISS.

Reg.

105. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 15:09:37 UTC
From: Dan Andersson <dan@andersson.co.uk>
Message-ID: <FLicndsKg_uxdLLZSa8jmw@karoo.co.uk>
Source record: 61746

w8ji@akorn.net wrote:

>
> Dan Andersson wrote:
>
>> The EH-Antenna is just another small antenna with it's preferred field of
>> application. It's not to be compared with any directional antenna as it's
>> mostly omnidirectional. Also, the EH have to be mounted 1/4 wavelength up
>> to work according to the designers.
>
>
> The EH antenna theory is total rubbish. It is physically impossible to
> mix an electric field and a magnetic field and generate EM radation.
>
> The basic operating premise of the EH antenna is a lie.
>
>> The EH that receives most of the appraisal is the 160m version. Probably
>> because it's very difficult to have a dipole or longwire up for 160m...
>> so when compared to a 160m dipole 10 meter above ground, the EH
>> outperforms that dipole
>
> Nonsense. You won't find a single scientifically made test where an EH
> antenna outperforms a similar size regular short monopole.
>
> On 160 meters EH antennas are typically 10 dB down or more from very
> poor dipoles.
>
> If an EH antenna beats another antenna it is always tracible back to
> the other antenna being grossly poor. There isn't a single professional
> evaluation of the EH antenna in the world that has ever shown it to be
> better than any other antenna the same physical size, and most show it
> is actually worse.
>
> If you polled a large cross section of people about a very poor leader
> of a country, you'd find a significant percentage claiming the very
> poor leader was a good leader despite very clear evidence to the
> contrary. The EH antenna and any other widespread myth is no different.
> It's all about blind faith and spin rather than facts. Some people just
> don't care about facts, and prefer to live by faith.
>
> The EH antenna will probably go on for years, despite the fact it has
> been proven over and over to be a fraud.
>
> 73 Tom

So, the subject is still taboo.

Well Tom, I can't say I have seen your evidence that the EH-antenna is a fraud. On the other hand, the only test I found of the 160m EH was in the RSGB Radcom, and that test was in positive wording. I have not seen any positive test of a 80 m EH tho'!
Also, a couple of tests that I've seen on the EH claiming it doesn't work, have been rubbish too. I saw one test by a chap - Calvin something I think it was, that had all the necessary equipment at hand but unfortunately, the test where spoiled by to inflated ego's. Other tests have been claimed it do work but I don't see any of them as really scientifically correct either.

Professional tests? Wasn't there a proper evaluation done on a commercial EH for a radiostation a couple years back?

I do not agree with you claim that there isn't a single professional evaluation. The EH for VHF was tested in France - maybe two years ago now and was in line for 27,000 installations. The EH lost because of the price, not because of performance. The EH results gave a S/N improvement of 5 to 7 dB, which dramatically improved the telemetry systems functionality. As this was a commercial evaluation, no data where released.

As to the field theory, which I didn't mention anything about in my earlier posting, I just cannot comment about that theory as I, amongst many other hams, lack the really deep knowledge of EM theory other than what can be found in the normal text books.

The let us take a look on the "fraud theory". The inventor of the EH doesn't have (as far as I know) any known record of fraud. On the contrary actually. As I remember it, a similar debate raged when he presented the mini magnetic loops some years ago. When he presented the noise bridge, there where no problems at all as I remember it. So for now, I can't see any deeper conspiracy theories lurking around the corner neither any real reasons as an incentive for a fraud.

The best tests of the EH so far have been on VHF and without any coax connected to the EH.

I'm actually very interested to read up on this and as you write there are multiple evidence of fraud, I'm sure you can post some pointers to these tests.

BTW! I'm quite sure many of us stumble on the EH's daily nowadays as a common use of the EH is for RFID equipment.

Cheers

Dan

106. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 15:31:23 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <122vrkhlccjcdfa@corp.supernews.com>
Source record: 61748

Cecil Moore wrote:

> Tom Ring wrote:
>
>> You cannot win an argument with someone that does not acknowledge
>> reality.
>
>
> I've found that out, Tom. None of you guys are willing to
> answer any technical questions about the material presented
> on my web page at: http://www.qsl.net/w5dxp/current.htm,
> in particular: http://www.qsl.net/w5dxp/1WLDIP.GIF
>
> The current through a coil placed in a standing wave
> environment either depends upon where it is placed in
> that environment or it doesn't. It's not rocket science.
>
> The gurus have refused to discuss at least 95% of my
> technical questions. No amount of personal wise cracks,
> like yours above, will erase that fact.
Cec;

I hate to be the one to break it to you but you are the one they are
talking about.
When everyone says you are drunk, like down, your drunk.

Dave N

107. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 15:32:56 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <WSDSIPIo6+LEFAhX@ifwtech.co.uk>
Source record: 61752

Early... too early... on Saturday morning, I wrote:

>Tom Donaly wrote:
>>
>>What lumped circuit theory? It's a simplification and everyone
>>knows it. Don't set up any more straw men than you have to, Cecil.
>
>It's a simplification of any real-life coil - but loading by
>pure-and-simple lumped inductance is also a vital test case.
>
>This form of loading is the simplest imaginable. If a theory about the
>behaviour of loaded antennas fails to give correct results for this
>very simplest test case, it cannot be valid... and all the further
>elaborations about real-life coils will not be valid either.
>

Evidently I was in too much of a hurry to leave for the GMDX convention,
because what I mean to write next was:

"Cecil's theory does not work for this test case, "

[I definitely did type the word "not", but it accidentally disappeared
from the version that was posted.]

So, from the top of the paragraph:

Cecil's theory does not work for this test case,
>because it requires that basic electrical properties like current and
>inductance switch into a different kind of behaviour in what he calls a
>"standing wave environment". But it is an absolutely basic fact that
>the physical world does NOT change its behaviour according to the way
>we choose to think about it. If any theory requires that, it's an
>absolute proof that such theory is false.
>
>
>For the avoidance of doubt (as they say in Scottish legal documents):
>It certainly IS possible to analyse and predict the behaviour of
>coil-loaded antennas in terms of travelling and standing waves. My
>objection is specifically against Cecil's method, which is provably
>incorrect.

Sorry for any confusion that typo may have caused. This corrected
version is now fully consistent with what I meant to say.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

108. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 15:36:08 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <442feea1_5@newsfeed.slurp.net>
Source record: 61749

> Do you have a sketch of the harness a guy might use to feed that 8
> dipole colinear array? Remember, this colinear antenna is mounted on the
> back of a Lap Top Computer for WiFi use.

Sorry, not for that application.

109. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 15:40:47 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <3gSXf.63583$Jd.40227@newssvr25.news.prodigy.net>
Source record: 61750

Cecil Moore wrote:
> Reg Edwards wrote:
>
>> It may be of interest to antagonists in the "current through coils"
>> civil war.
>
>
> The nature of traveling wave current and standing wave current
> is different. Does your program take that into account?
>
> The "current through coils" argument boils down to the ones who
> understand standing wave currents in a standing wave antenna and
> those who refuse to take the time to understand.
>
> Quoting "Optics", by Hecht: "E(x,t) = 2Eo*sin(kx)*cos(wt)
> This is the equation for a STANDING or STATIONARY WAVE, as
> opposed to a traveling wave (Fig. 7.10). Its profile does
> not move through space. ... [The phase] doesn't rotate at
> all, and the resultant wave it represents doesn't progress
> through space - it's a standing wave."
>
> Until the gurus take the time to understand the nature of
> standing waves in standing waves antennas, they will keep
> committing the same mental blunders over and over.

Hecht forgot to put the phase difference in his formula.
It's no wonder there's no phase information in your
standing waves, Cecil, Hecht left it out. Not only
that, but where did he get the idea that it was sin(kx) instead
of cos(kx). I understand Hecht is a good old boy, but I'd like to
see his derivations.
73,
Tom Donaly, KA6RUH

110. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 15:45:52 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <QkSXf.63584$Jd.47881@newssvr25.news.prodigy.net>
Source record: 61751

Tom Ring wrote:

> Tom Donaly wrote:
>
>>
>>
>> Cecil, there are two Corums and they're both Tesla coil
>> crackpots. Secondly, Tom is right, you have to have capacitance
>> to somewhere or your transmission line analogy becomes mired in
>> absurdities. Third, it isn't enough to think something up in
>> your head to make a convincing theory, you have to be able to
>> predict behavior with it. Finally, you have to understand your
>> subject before you even start thinking. I'm surprised you didn't
>> even take the time to make a real coil and at least try to
>> determine its characteristics before wasting everyone's
>> time by starting this thread.
>> 73,
>> Tom Donaly, KA6RUH
>
>
> Tom,
>
> You, and everyone else is, as we put it in the midwest, and probably
> elsewhere, "pissing into the wind".
>
> You cannot win an argument with someone that does not acknowledge reality.
>
> tom
> K0TAR

If we don't pee into the wind Cecil will end up telling everyone his
crackpot theories are received truth, and eventually we'll be reading
them in _The ARRL Handbook_. I appreciate the fact that it's a waste of
time, otherwise. Entertaining, though. Cecil's an interesting Character.
73,
Tom Donaly, KA6RUH

111. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 16:07:38 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <ZFSXf.6418$Wx6.2052@fe12.lga>
Source record: 61753

"Cecil Moore" <mycall@hotmail.com> wrote in message >
> Until the gurus take the time to understand the nature of
> standing waves in standing waves antennas, they will keep
> committing the same mental blunders over and over.
> --
> 73, Cecil http://www.qsl.net/w5dxp

More astonishing than that, Until the "gurus" put their finger on the coil, or aquarium thermometer, or RF ammeter, or infrared scope and see that the loading coil (in a typical quarter wave resonant whip) is heating up at the bottom, being the reality that defies their "scientwific theories why it shouldn't" - they will keep committing the same mental blunders over and over.

What's next? There is less current in a wire (coil) where wire (coil) gets hotter?
Let the games begin!

Thermometers don't lie, meters don't lie, even EZNEC shows it! So wasaaaaap?

Yuri, K3BU

112. What this, The Jim black balun ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 16:18:21 UTC
From: tucker@conninc.com
Message-ID: <1143994701.455481.269970@v46g2000cwv.googlegroups.com>
Source record: 61754

I found this at a flea market today, it looks a typical PVC balun with so239 female on the bottom but has 35-50 foot length of 300 ohm twin lead TV cable coming out the other end, it says:

The Jim Black Balun
air wound 2kw pep
with low swr
1.8 - 30mhz 1:1 ratio
by wa4ytu - Jim Black

it looks like you hook your coax to the female connector, but how do uoy rrun the 300ohm
twinlead? horizonal, vertical or does it have to be cut to length? I cant find any instructions
on the web for this balun/antenna.

113. Re: Cobra Ultrlite Senior

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 16:39:46 UTC
From: ldap500@gmail.com
Message-ID: <1143995986.057758.7890@z34g2000cwc.googlegroups.com>
Source record: 61755

I have the Ultralite Senior and it seems to work pretty good. I originally bought it just for local work and to be able to cover all bands. I put it up 30 feet in some trees and since my yard is too small the ends hang down about 15 feet. I used a 4:1 balun with the full 100 ft. of ladder line it comes with and then about 75 ft. of coax to my radio.
It loads up with my TS-480 auto tuner on all bands.
I now use it for DX as much as my vertical and my half squares. It is a lot quieter than the verticals. I worked Peter One from N. California on 20 meters and New Guinea on 15 meters with 100 watts. It even works on 6 meters, though no where near as good as my stacked loops.

Pete

114. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 16:40:25 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1143996025.915243.36040@v46g2000cwv.googlegroups.com>
Source record: 61756

Reg wrote, "The source code text, which is almost readable using
non-proportional
spaced text readers, can be found in "Download Pascal source code from
here" section on the Index page."

Awwwww, MAN! I was hoping it would be in Snobol, or at least Lisp.

(Thanks for the new program, and all your programs, Reg.)

Cheers,
Tom

115. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 16:55:31 UTC
From: w8ji@akorn.net
Message-ID: <1143996931.718643.138260@i40g2000cwc.googlegroups.com>
Source record: 61757

Dan Andersson wrote:
> So, the subject is still taboo.

No, but like with any untrue claim that offers something for nearly
nothing there will be those who want it to happen so bad they will have
blind unbendable faith.

> Well Tom, I can't say I have seen your evidence that the EH-antenna is a
> fraud. On the other hand, the only test I found of the 160m EH was in the
> RSGB Radcom, and that test was in positive wording. I have not seen any
> positive test of a 80 m EH tho'!

http://www.fi.uba.ar/materias/6654/download/CFAantenna.pdf

http://www.home.earthlink.net/~calvinf15/_technical/

are two places.

http://www.w8ji.com/e-h_antenna.htm

> Professional tests? Wasn't there a proper evaluation done on a commercial EH
> for a radiostation a couple years back?

This is what speaks volumes about the credibility of the CFA and EH
antenna people.

They keep claiming they will soon have supporting data, but it never
appears. There always is a reason, like the "test is secret".

Common sense would tell anyone that if they are on to something, they
would just pony-up the cash to have a reputable lab do a test. If you
think about it, there isn't a single invention in the world good for
common man that actually works where the manufacturer can't point you
at working examples that can been seen by people.

This EH stuff is exactly like the 1969 L-88 Corvette that was sitting
in the mother's garage since Viet Nam, sold to a friend of the guy
telling the story for $250.

> I do not agree with you claim that there isn't a single professional
> evaluation.

Point me to one. Any one.

> The EH for VHF was tested in France - maybe two years ago now
> and was in line for 27,000 installations. The EH lost because of the price,
> not because of performance. The EH results gave a S/N improvement of 5 to 7
> dB, which dramatically improved the telemetry systems functionality. As
> this was a commercial evaluation, no data where released.

Sounds like the Corvette. It really happened, we just can't tell you
where and how.

> As to the field theory, which I didn't mention anything about in my earlier
> posting, I just cannot comment about that theory as I, amongst many other
> hams, lack the really deep knowledge of EM theory other than what can be
> found in the normal text books.

Then you'll have to take my word and other people's word for it. We
cannot synthesize radiation.

See:
http://www.w8ji.com/radiation_and_fields.htm

> The let us take a look on the "fraud theory". The inventor of the EH doesn't
> have (as far as I know) any known record of fraud.

1.) Ted Hart told the Atlanta Radio Club he invented or designed the
MFJ loop antenna and MFJ antenna analyzer.

2.) An officer of that club conatcted me, and asked me if that was
true.

3.) I told them no, he had nothing to do with those products and I
didn't even know who he was.

4). Ted Hart then told Antennex I "quit the Atlanta radio club" and
"stormed out of a meeting". Antennex published that letter.

I have never been a member of ARC.
I have never in my life attended a meeting of that club.
I have never quit any radio club in my life.
I have never stormed out of a meeting of any kind in my life.
Ted Hart had nothing to do with the MFJ loop or the MFJ antenna
analyzer.

73 Tom

116. Re: What this, The Jim black balun ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 17:23:05 UTC
From: Dan Richardson <k6mhe>
Message-ID: <1u1032169jtntv9kge9bui5gvbvegrc9uq@4ax.com>
Source record: 61758

On 2 Apr 2006 09:18:21 -0700, tucker@conninc.com wrote:

> I found this at a flea market today, it looks a typical PVC balun with
>so239 female on the bottom but has 35-50 foot length of 300 ohm twin
>lead TV cable coming out the other end, it says:
>
>The Jim Black Balun
>air wound 2kw pep
>with low swr
>1.8 - 30mhz 1:1 ratio
>by wa4ytu - Jim Black
>
>it looks like you hook your coax to the female connector, but how do
>uoy rrun the 300ohm
>twinlead? horizonal, vertical or does it have to be cut to length? I
>cant find any instructions
>on the web for this balun/antenna.

Sounds like it was designed to be used with a G5RV. I see WA4YTA is
listed on Buckmaster's call sign lookup on the web. Have you thought
of contacting him?

I would be a bit skeptical of an air wound balun with that bandwidth
claim.

73,
Danny, K6MHE

117. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 17:24:51 UTC
From: w8ji@akorn.net
Message-ID: <1143998691.460370.255530@i40g2000cwc.googlegroups.com>
Source record: 61759

Yuri Blanarovich wrote:
> More astonishing than that, Until the "gurus" put their finger on the coil,
> or aquarium thermometer, or RF ammeter, or infrared scope and see that the
> loading coil (in a typical quarter wave resonant whip) is heating up at the
> bottom, being the reality that defies their "scientwific theories why it
> shouldn't" - they will keep committing the same mental blunders over and
> over.

Yuri,

No one I have seen has every said one tuern can't get hotter than
another turn in a loading coil.

For example, I can take a piece of airdux and short a single turn
anywhere in the coil. That turn and the turns around it will get very
hot, often even melting the form and discoloring the wire, even with
modest power applied in a resoant circuit.

I had my 75 watt Novice rig melt miniductor in certain spots way back
in the very early 60's.

The problem is wild theories are created from small grains of truth or
factoids. It is the wild theories that people question.

In an effort to support the wild claims, there seems to be an effort to
dismiss anything but the wild theories. Here is how it goes:

1.) My Hustler antenna loading coil (known to be a poor electrical
design) melted the heatshrink at the bottom

2.) This must be becuase there is only high current at the bottom of
every loading coil.

3.) This must be because the standing waves on the antenna all wind up
in the loading coil.

4.) This must mean all loading coils act just like they are the x
degrees of antenna they replace.

5.) This is why, no matter what we do with loading coil Q, efficiency
doesn't change much.

6.) We will write a IEEE paper about this astounding fact, since all
the texbooks about loading coils or inductors in general must be wrong

7.) Anyone who point out it is imperfections in the design of the
system that cause this must be wrong, since I saw the coil get hot

8.) Anyone who disagrees with me must think himself a guru, and be incapable of learning or understanding how things work

9.) I know all this because the bottom of the coil gets hot in my antenna

What's next? There is less current in a wire (coil) where wire (coil) gets
> hotter?
> Thermometers don't lie, meters don't lie, even EZNEC shows it! So wasaaaaap?

It's all been explained over and over again.

If the termination impedance of the coil is very high compared to shunting impedances inside the coil to the outside world, a coil can have phase shift in current at each terminal and it can have uneven current distribution.

This is not caused by standing waves or "electrical degrees" the coil replaces, but rather by the displacement currents which can provide a path for the through currents.

Reg actually explained this very well, as has Roy, Tom D, Gene, Tom ITM, Ian, and a half dozen others.

The reason you keep beating your head against the wall is you want to think the conclusions you formed were correct.

If I wanted to design a loading coil that has virtually 100% current taper, I could. If I wanted to design one with virtually no taper, I could. I could actually have an antenna of a fixed height and by making various styles of loading coils go anywhere from nearly uniform distribution at each end of the coil to some significant taper.

The problem is Cecil attributes it all to standing waves, and not to the inductor's design. You seem to be doing the same.

Since we won't agree with your wrong theories, you then conclude we are saying step one is wrong and you never saw what you saw. Step one is fine. Step two is where everything you say falls apart.

73 Tom

118. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 17:35:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2j10329bmdtrce7mhs4b7s5kua4jhekdms@4ax.com>
Source record: 61760

Hi Jimmie,

I hope you appreciate the mix of confusion, theory, hope, and despair
that follows this subject. :-)

On Sun, 02 Apr 2006 16:09:37 +0100, Dan Andersson
<dan@andersson.co.uk> wrote:

>So, the subject is still taboo.

Well, that's a new way to approach the subject, tie it to sex.

>was in the RSGB Radcom

Vanity publishing is not science.

>Professional tests? Wasn't there a proper evaluation done on a commercial EH
>for a radiostation a couple years back?

For what it was worth: -10dB at best, and a signal diving into the
noise floor 20 miles away for an AM band signal. The upshot of it
all, was if you couldn't see it, you couldn't hear it. Same fate as
the common rubber duckie antenna.

>The EH lost because of the price,

An old oil drum with a beach umbrella cost that much? This goes
against the their noted claims of it being cheaper than a standard
design.

>not because of performance. The EH results gave a S/N improvement of 5 to 7
>dB, which dramatically improved the telemetry systems functionality. As
>this was a commercial evaluation, no data where released. d

Soounds like a combination of the OJ Simpson defense and the Kennedy
assassination theory.

>When he presented the noise bridge,
>there where no problems at all as I remember it.

A noise bridge is to signal performance as a gas gauge is to
horsepower.

>The best tests of the EH so far have been on VHF and without any coax
>connected to the EH.

You can work the space shuttle without coax connected to a rubber duck
antenna either. Why build an eh when you already have a rubber
duckie?

>BTW! I'm quite sure many of us stumble on the EH's daily nowadays as a
>common use of the EH is for RFID equipment.

You have a proper reference for that of course. The reigning
crack-pot-king insists they are fractals.

73's
Richard Clark, KB7QHC

119. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 17:40:14 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <QKhTu7Q+xAMEFAZL@ifwtech.co.uk>
Source record: 61761

Yuri Blanarovich wrote:
>"Cecil Moore" <mycall@hotmail.com> wrote in message >
>> Until the gurus take the time to understand the nature of
>> standing waves in standing waves antennas, they will keep
>> committing the same mental blunders over and over.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
>
>More astonishing than that, Until the "gurus" put their finger on the coil,
>or aquarium thermometer, or RF ammeter, or infrared scope and see that the
>loading coil (in a typical quarter wave resonant whip) is heating up at the
>bottom, being the reality that defies their "scientwific theories why it
>shouldn't" - they will keep committing the same mental blunders over and
>over.
>
>What's next? There is less current in a wire (coil) where wire (coil) gets
>hotter?
>Let the games begin!
>
>Thermometers don't lie, meters don't lie, even EZNEC shows it! So wasaaaaap?

If you're looking for an argument, you're looking in the wrong place.

Nobody denies the raw evidence, like the fact that some loading coils
get hotter at the bottom than at the top... and the fact that some other
coils don't (or nowhere near as much).

There are good explanations for everything you see. But the only valid
explanations are the ones that account for *all* the facts about *all*
types of loading coils.

The argument is specifically about Cecil's attempts to explain the
evidence, using his own particular ideas about "standing wave antennas".
He makes it kinda work for the cases he wants to think about, but in
other cases it gets things fundamentally wrong - and that isn't good
enough.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

120. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 18:09:41 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <FrUXf.2479$Py4.2139@trnddc06>
Source record: 61762

Reg Edwards wrote:
> To satisfy demands for disclosure of the source code of my programs I
> have made the source code of program TRANCO_1 available from my
> website.
>
> It may be of interest to antagonists in the "current through coils"
> civil war.
>
> The source code text, which is almost readable using non-proportional
> spaced text readers, can be found in "Download Pascal source code from
> here" section on the Index page.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....

There is no "Download Pascal source code from here" section on the Index page. There is a "Get Pascal source code from here" section which lists the following:

GRNDWAV3.pas * Groundwave propagation vs frequency, distance and terrain.

TOPHAT2.pas * Performance of top-capacitance loaded vertical.

PADMATCH.pas * T and Pi resistive-matching and minimum loss pads.

I do not see the TRANCO_1 source code listed.

73
John

121. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 18:12:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <8uUXf.51202$2O6.38100@newssvr12.news.prodigy.com>
Source record: 61763

David G. Nagel wrote:
> I hate to be the one to break it to you but you are the one they are
> talking about.

I know that, Dave. At best it is the pot calling the kettle
black. At worst, it's just another falsehood, one of many.

The problem here is not "Current through coils". The problem
is that a lot of the gurus are completely ignorant of the
nature of standing wave current and refuse to alleviate
their ignorance.
--
73, Cecil http://www.qsl.net/w5dxp

122. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 18:16:30 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <2yUXf.18997$B_1.11490@edtnps89>
Source record: 61764

> Recently heard about EH antennas and have done some research into them
> including reading some articles in this newsgroup. It is begining ti
> sound very much like my friends homemade FM/TV antenna. My friend being
> short on money fastened an old bicycle rim to a piece of galvanized
> pipe(axel stuck in the pipe) Feedline was connected from the center o
> the wheel to a point on the outer rim. I had repeated told my friend
> that something like this would never work and he demonstrated to me
> that it did.. I theink the EH antenna is a lot like this old wheel,
> just about anything placed on a mast with work to some degree. In this
> case a very poor antenna allowed my friend to receive 2 TV stations and
> 4 or 5 FM radio stations. This was a vast improvement over the 0 tv and
> Fm stations he was receving before putting up his "antenna" Would it be
> appropriate to say that an EH antenna is more like a coupler that
> utilises the antenna support structure(tower/mast) and feedline as the
> radiating elements of the antenna?.

I think the EH is the same idea as the CFA; in which case the following
paper
says it all: http://www.fi.uba.ar/materias/6654/download/CFAantenna.pdf.

It is hard to imagine going to these lengths to debunk nonsense, but I guess
it is the only way.

Frank

123. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 18:18:38 UTC
From: Dan Andersson <dan@andersson.co.uk>
Message-ID: <uAGdnUlc2o3liK3ZSa8jmw@karoo.co.uk>
Source record: 61765

Richard Clark wrote:

> Hi Jimmie,
>
> I hope you appreciate the mix of confusion, theory, hope, and despair
> that follows this subject. :-)
>
> On Sun, 02 Apr 2006 16:09:37 +0100, Dan Andersson
> <dan@andersson.co.uk> wrote:
>
>>So, the subject is still taboo.
>
> Well, that's a new way to approach the subject, tie it to sex.
>
>>was in the RSGB Radcom
>
> Vanity publishing is not science.
>
>>Professional tests? Wasn't there a proper evaluation done on a commercial
>>EH for a radiostation a couple years back?
>
> For what it was worth: -10dB at best, and a signal diving into the
> noise floor 20 miles away for an AM band signal. The upshot of it
> all, was if you couldn't see it, you couldn't hear it. Same fate as
> the common rubber duckie antenna.
>
>>The EH lost because of the price,
>
> An old oil drum with a beach umbrella cost that much? This goes
> against the their noted claims of it being cheaper than a standard
> design.
>
>>not because of performance. The EH results gave a S/N improvement of 5 to
>>7 dB, which dramatically improved the telemetry systems functionality. As
>>this was a commercial evaluation, no data where released. d
>
> Soounds like a combination of the OJ Simpson defense and the Kennedy
> assassination theory.
>
>>When he presented the noise bridge,
>>there where no problems at all as I remember it.
>
> A noise bridge is to signal performance as a gas gauge is to
> horsepower.

>
>>The best tests of the EH so far have been on VHF and without any coax
>>connected to the EH.
>
> You can work the space shuttle without coax connected to a rubber duck
> antenna either. Why build an eh when you already have a rubber
> duckie?
>
>>BTW! I'm quite sure many of us stumble on the EH's daily nowadays as a
>>common use of the EH is for RFID equipment.
>
> You have a proper reference for that of course. The reigning
> crack-pot-king insists they are fractals.
>
> 73's
> Richard Clark, KB7QHC

Richard,

One of the licensees are an Israeli supplier of RFID systems. You need to check on the www.e-antenna.com for any references to them.

The rubber duck antennas are mostly to sensitive to metallic objects in the proximity. There was actually good reasons to choose the EH but as the cost for a helical was counted in cents, a multi dollar cost for an EH replacement was a definitively showstopper.

The claim to be cheap could probably be true for a commercial AM transmitter as you need a significant lesser amount of property to house it.

As I was writing about VHF antennas, the amount of property needed is not really anything to do with cost...

The other comments from you Richard, went into the bin as just stupid remarks and not really productive - merely as it tends to be on Usenet...

I've seen to much weirdness in the debate surrounding the EH's but I have to admit that the CFA is something I'd rather avoid spending time on...

Unfortunately, the debate in this matter tends to go religious and that excludes any real possibility to neither debunk nor confirm the EH. Pity.

So Jimmy,

By firing of questions about EH's you will really stir up a hornets nest...

Cheers

Dan / M0DFI

124. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 18:28:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cs5032dv5sfba3hagm79obmcnrvs4e9iik@4ax.com>
Source record: 61766

On Sun, 2 Apr 2006 12:07:38 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>Thermometers don't lie, meters don't lie, even EZNEC shows it! So wasaaaaap?

Hi Yuri,

That's a good question. The last you had to say, two years ago, was
you were waiting for the snow to melt to provide a better measure.

It must have been a particularly long and cold winter these two years.

73's
Richard Clark, KB7QHC

125. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 18:31:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0MUXf.51208$2O6.20901@newssvr12.news.prodigy.com>
Source record: 61767

Ian White GM3SEK wrote:
> Evidently I was in too much of a hurry to leave for the GMDX convention,
> because what I mean to write next was:
>
> "Cecil's theory does not work for this test case, "
>
> [I definitely did type the word "not", but it accidentally disappeared
> from the version that was posted.]

Well there you have it, folks. Gurus don't even make typo mistakes.
Some evil server removed that "not" on purpose from Ian's posting.

> Cecil's theory does not work for this test case,
>> because it requires that basic electrical properties like current and
>> inductance switch into a different kind of behaviour in what he calls
>> a "standing wave environment".

RF current switches from a different kind of behavior than DC current.
Phase, capacitance, inductance, and wavelength all have to be taken
into account in the steady-state analysis. That is a technical fact
that I'm sure you appreciate.

Why is it such a stretch to recognize that standing wave current behaves
differently from traveling wave current? That standing wave current is
different from traveling wave current is readily apparent from the
equations. In the following equations, 'K' is used for a constant,
'z' is the linear distance up and down the line, and 'w' is omega.

Forward traveling wave current = K1*cos(kz+wt)
Reflected traveling wave current = K2*cos(kz-wt)
Standing wave current =
K1*cos(kz+wt) + K2*cos(kz-wt) = K3*cos(kz)*cos(wt)

If tK1 = K2, then the standing wave doesn't move. Please dust off
your old math books and realize what the above equations imply at
a physical level.
--
73, Cecil http://www.qsl.net/w5dxp

126. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 18:39:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <RTUXf.51210$2O6.15751@newssvr12.news.prodigy.com>
Source record: 61768

Tom Donaly wrote:
> Hecht forgot to put the phase difference in his formula.
> It's no wonder there's no phase information in your
> standing waves, Cecil, Hecht left it out.

You are mistaken. If Hecht left it out then so did Gene Fuller.
I suggest you listen to Gene when he says: Regarding the
cos(kz)*cos(wt) terms in the standing wave equation:

> Gene Fuller, W4SZ wrote:
>> In a standing wave antenna problem, such as the one you describe, there is no
>> remaining phase information. Any specific phase characteristics of the traveling
>> waves died out when the startup transients died out.
>>
>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen again.
>>
>> The only "phase" remaining is the cos (kz) term, which is really an amplitude
>> description, not a phase.

> Not only
> that, but where did he get the idea that it was sin(kx) instead
> of cos(kx). I understand Hecht is a good old boy, but I'd like to
> see his derivations.

Apparently, you are ignorant of the difference in conventions between
optics and RF engineering. In optics, there is no current so there is
no current changing phase at an open circuit. In optics, the M-field
changes directions but not phase. In RF engineering, a change in
direction of the H-field is considered to be a 180 degree phase shift.
Both conventions are correct as long as one understands them. Your
strange statement about Hecht above just proves your ignorance.
--
73, Cecil http://www.qsl.net/w5dxp

127. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 18:47:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g170321r0cqm1tmro0u7l2pqcbh0v33prk@4ax.com>
Source record: 61770

On Sun, 2 Apr 2006 09:02:46 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The source code text, which is almost readable using non-proportional
>spaced text readers, can be found in "Download Pascal source code from
>here" section on the Index page.

Hi Reggie,

A fine example of coding.

73's
Richard Clark, KB7QHC

128. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 18:48:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <u0VXf.51212$2O6.46513@newssvr12.news.prodigy.com>
Source record: 61769

w8ji@akorn.net wrote:
> No one I have seen has every said one tuern can't get hotter than
> another turn in a loading coil.

If the current is equal at both ends, how does one turn
possibly get hotter than another turn?

> It's all been explained over and over again.

Repeating a wrong answer 1000 times doesn't make it right.
And that's exactly what you do.

> If the termination impedance of the coil is very high compared to
> shunting impedances inside the coil to the outside world, a coil can
> have phase shift in current at each terminal and it can have uneven
> current distribution.
>
> This is not caused by standing waves or "electrical degrees" the coil
> replaces, but rather by the displacement currents which can provide a
> path for the through currents.

It is caused by where the coil is installed in the standing wave
environment, proved on my web page at:
http://www.qsl.net/w5dxp/current.htm

That the proof is accurate explains why you refuse to discuss the
technical facts surrounding it.

> The problem is Cecil attributes it all to standing waves, and not to
> the inductor's design.

Given the fixed design of a single inductor example, I can change
which end the current is highest by simply placing in in the proper
place in the standing wave environment, the environment that you
refuse to discuss.
--
73, Cecil http://www.qsl.net/w5dxp

129. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 18:56:02 UTC
From: Jim <jbollit@verizon.net>
Message-ID: <67VXf.3640$qe7.109@trnddc04>
Source record: 61771

Richard,

The antenna that I am looking to build is not for Wi-Fi, but for 840mHz range and will be mounted outside on a pole about 25 feet high.

Tnx

Jim
"Richard Fry" <rfry@adams.net> wrote in message news:442feea1_5@newsfeed.slurp.net...
>> Do you have a sketch of the harness a guy might use to feed that 8
>> dipole colinear array? Remember, this colinear antenna is mounted on
>> the back of a Lap Top Computer for WiFi use.
> ___________
>
> Sorry, not for that application.

130. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 19:06:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <797032d1auoalnkjaua5nag2ha9p17nc4v@4ax.com>
Source record: 61772

On Sun, 02 Apr 2006 19:18:38 +0100, Dan Andersson
<dan@andersson.co.uk> wrote:

>One of the licensees are an Israeli supplier of RFID systems. You need to
>check on the www.e-antenna.com for any references to them.

Hi Dan,

That's worse than vanity publishing. At least hard copy publishers
limit their quota of goof-ball articles due to the cost of ink.
Anyway, an Israeli supplier is hardly the end-all be-all on this
topic.

>The rubber duck antennas are mostly to sensitive to metallic objects in the
>proximity. There was actually good reasons to choose the EH but as the cost
>for a helical was counted in cents, a multi dollar cost for an EH
>replacement was a definitively showstopper.

Telling us "good reasons" were nixed by something else passes an
ocean's worth of water under the bridge. In the old days (and
possibly still) girls who didn't care for certain fellow's invitations
would put them off by saying they were washing their hair that night.

I'm afraid the eh/cfa/what-have-you are as plug ugly as that fellow,
but "something" has to be said so as to not hurt feelings.

>The claim to be cheap could probably be true for a commercial AM transmitter
>as you need a significant lesser amount of property to house it.

You are suggesting that antenna economy doesn't scale with decrease of
wavelength? Odd. You still have the same building either way.

>As I was writing about VHF antennas, the amount of property needed is not
>really anything to do with cost...

A resistor in the air makes VHF contacts too.

>Unfortunately, the debate in this matter tends to go religious and that
>excludes any real possibility to neither debunk nor confirm the EH. Pity.

You dismiss my comments as stupid, but you chose to respond to them
instead of Tom's professional testing results. That speaks a good
deal about religious affiliation.

You also skipped my technical discussion to focus on the
inconsequential. This is self-fulfilling about being stupid. There
are measured results out there that exhibit the eh as being a poor
performer compared to the short monopole it would compete with

(nevermind the full antenna it is supposed to replace).

Basically, if you cannot see the antenna, you can't hear it.
Fortunately you can stick anything in the air at VHF to compete on this basis. Unfortunately (for the eh/cfa/what-have-you) both the price and complexity don't stand a chance in competition with the rubber duckie - that's pretty stupid too.

What is this religion called?

73's
Richard Clark, KB7QHC

131. Re: paint antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 19:30:49 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <m-6dndOn-7L6u63ZnZ2dnUVZ_vWdnZ2d@comcast.com>
Source record: 61773

Put a 1 inch wide piece of tape 33 feet long in the middle of that brick wall horizontally.

Paint the wall at least 5 feet wide totally around the tape.

Remove the tape.

Connect your coax approximately 15% from on end where the tape kept paint off the bricks. Then connect the braid to one edge where the tape was removed, then connect the center conductor directly across from the braid. Fasten the braid and center conductor.

Go downstairs and load up your 20 meter 'vertical' antenna.

AKA SLOT Antenna.

I suspect the paint might be expensive though!! :-)

DD, W1MCE

ml wrote:

> just read a article someplace about a new conductive paint that is going
> to be used by different sources (pvt/mil) to in effect paint an antenna
> on a surface. once such use was an 'orbiting' blimp , planes etc to
> repete signals
>
>
> ok so i wonder my roof has a flat brick wall it's 40ft tall 40ft wide
>
> if i painted a antenna design think i'd get any useful performance in at
> least one direction?
>
> unf it didn't state any spec's but it's commercial
>
>
> just really thinking out louad how a antenna w/little profile but
> otherwise large surfacce area might work

132. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 19:37:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <QJVXf.63614$Jd.12254@newssvr25.news.prodigy.net>
Source record: 61774

Ian White GM3SEK wrote:
> The argument is specifically about Cecil's attempts to explain the
> evidence, using his own particular ideas about "standing wave antennas".
> He makes it kinda work for the cases he wants to think about, but in
> other cases it gets things fundamentally wrong - and that isn't good
> enough.

That's just not true, Ian. If the distributed network model agrees with the lumped circuit model, then the lumped circuit model is being used in an appropriate situation. If the distributed network model disagrees with the lumped circuit model, then the lumped circuit model is being used in an inappropriate situation. The distributed network model is always right when it disagrees with the lumped circuit model. The distributed network model is a *superset* of the lumped circuit model. To quote Dr. Corum:

"Distributed theory encompasses lumped circuits and always applies."

And before you dismiss Dr. Corum as a "crackpot", as others have, please pay attention to the references for his peer-reviewed paper published by the IEEE: Kraus, Terman, Ryder, Ramo & Whinnery, Born & Wolf.

The problem is that the lumped circuit model is being used in inappropriate situations because you and others do not understand how standing wave current in standing wave antennas differs from traveling wave current in traveling wave antennas. To compound the error, none of you are willing to discuss it from a technical standpoint. That unwillingness reeks of religion, not science.

Someone we both know and respect wonders why you are so closed minded. I suggested he contact you by email.

If you, or anyone else, were willing to discuss the nature of standing waves from a technical standpoint, most of the present argument would be resolved by that discussion. I'm willing to discuss it. Why aren't you?

It is entirely possible that I am abusing the distributed network model, but nobody will be able to prove it unless they engage in a discussion of standing waves.
--
73, Cecil http://www.qsl.net/w5dxp

133. swldatabase

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 19:57:01 UTC
From: magsimoe@gmail.com
Message-ID: <1144007821.927454.59540@e56g2000cwe.googlegroups.com>
Source record: 61775

Hello everyone!

I have just put my swl frequency database online. Please have a look at
http://www.swldatabase.com

Please send any feedback through the email that is listed on the page.
Thank you very much.

134. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 20:00:16 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <l3WXf.25$yZ6.6@fe12.lga>
Source record: 61776

"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
news:g3gPxvEsEYJEFAUl@ifwtech.co.uk...

> From the beginning, then:
snippydidudaa
>
> As we have seen, if the whip is loaded by pure inductance only, there is
> no change in current between the two terminals of the inductance - but
> there's a big step increase in voltage. At the upper terminal, the current
> is the same but the voltage is very high, so we're into a much
> higher-impedance environment.
>

Reality check here. I need explanation how the above could happen. "Current stays the same ... and the big step increase in voltage." As far as "idiot" professors taught me, (current x voltage) = power. So, am I to discover that the pure inductance is better than perpetual motion amplifier of power? More power coming out of the coil than going in? Eureka!!! How could I overlook that? :-)

> As we go further up towards the top of the whip, current magnitude has to
> taper off to zero at the very top. This also means that the voltage
> magnitude has to increase even more as we approach the top of the whip.
>

So it tapers across the straight piece of conductor, but not in the wound up conductor? Magine that! Reality check #2.

> Single-point loading by pure inductance has thus created almost all the
> major features that we see in a practical centre-loaded whip -
> particularly the big step change in voltage across the loading coil.
>

So the "teaching" is that there is a big step change in the voltage across the coil, but no-way change in the current? Who's law, theory, invention is that? (We are still talking about real RF currents, not "my voltage" and "your invincible, steady, unchengeable current"?)

> What we don't see in a practical antenna are exactly equal current
> magnitudes and zero phase shift between the terminals of a real-life
> loading coil - but that is ONLY because a real-life coil is not a pure
> inductance. The harder we try to reach that ideal (by winding the coil on
> a high-permeability toroidal core which confines the external fields and
> allows the whole thing to become very small), the closer the currents at
> the bottom of the coil come to being equal. Solid theory and accurate
> measurements come together to support each other. The only gap between

> theory and practice is due to our inability to construct a pure inductance
> that has no other complicating properties.
>

The whole argument is about REAL LIFE loading coil in the antennas. But you obviously ignored or not noticed that W9UCW also used toroid coil and found very similar results, about 40 - 60 % less current at the top end and NOT (just about) EQUAL as the arguments IS about. Who cares about or needs "pure" inductance? What for? Just to twist the argument that "gurus" were right? Gimme a break!

> If we can agree about pure inductive loading, we all have a firm place to
> stand. Then we can then put back those "other" complicating properties of
> a real-life loading coil, and see what difference they make.

As firm as driving my Buick in the free space!
Halooooo! Go measure it! See what it IS! Then if the coil IS hot at both ends, or you measure current almost equal at both ends, describe the experiment so we can verify it and we will rest our case and admit to be a bunch dummies stuck on stooooopid!
(We are still talking about quarter wave resonant, loaded typical mobile antenna with loading coil about 2/3 up the 8 - 10 foot mast, no detours to la-la pure inductance in the vacuum with no resistance, free space no-nothing thing :-)
And as Cecil mentioned, we are not disputing that there is no capacitance to the surroundings, or no losses through resistance and radiation amounting to SMALL (you put figure on it Richard) drop, versus more SIGNIFICANT (like 40 -60%) drop across the loading coil.

I am sorry to beeing away for a zilion of posts, but real life is more important and I am trying to be in touch. I will try to find the W8JI response to my first (start from scratch) post in order to find where I went wrong, if he will engage in some technical discussion. I hate to be wrong.

Happy second April foolsday!

Yuri, K3BU.us

> [1] This principle of "conservation of charge" is also the underlying
> principle of Kirchhoff's current law. If you connect three ordinary wires
> together, the current flowing into the junction from one wire must be
> exactly and instantaneously balanced by the currents flowing in or out on
> the other two wires. If this was not so, there would have to be some means
> of adding, storing or losing electrons at the junction... which
> contradicts our initial assumption of three simple wires with no special
> properties.
>
> It is not strictly accurate to say that Kirchhoff's current law applies to
> pure inductance, but the underlying principle of "conservation of charge"
> does apply.
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)

> http://www.ifwtech.co.uk/g3sek

What "other two wires"? I see RF current flowing through one wire (base)
then another wire in series (coil) than another one in series (tip - whip)
then "finding" the tip, aka END reflecting form it, and going back, creating
standing wave with proper current AND voltage distribution according to sine
(or if you like cosine) function.
What about energy (power) conservation law? How can coil "make" more voltage
at the top, while "having" the same current on the top as at the bottom?

73 + 88 from Yuri K3BU, jus' inquiring mind

135. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 20:09:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <imb032hocp24cme7hnrkuf7ct3l8es6l19@4ax.com>
Source record: 61777

On Sun, 2 Apr 2006 16:00:16 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>I am sorry to beeing away for a zilion of posts, but real life is more
>important and I am trying to be in touch. I will try to find the W8JI
>response to my first (start from scratch) post in order to find where I went
>wrong, if he will engage in some technical discussion. I hate to be wrong.

Didn't you start a new thread to clear out the cobwebs? That seems to
have gone the way of the dodo.

Hi Yuri,

Instead of chewing old gum over and over again, why not simply fulfill
a promise offered two years ago?

>>I hope it warms up, so I can get out, dig the car from the snow and do some
>>experimenting.
>>
>>First experiment will be with 80m Hustler coil in order to use "standard"
>>(lousy) typical coil. I will paste LCD strip thermometers on the coil to
>>measure temperature changes at various positions, ends, middle.
>>
>>Experiment #1:
>>I will drive DC current through the coil in order to generate heat and observe
>>the temperatures across the coil. I predict that thermometers will be tracking
>>each other very closely or be identical (ideal case).
>>
>>Experiment #2:
>>I will insert the same coil in the Hustler mobile antenna, tune to resonance
>>and fire 100W to it. I will observe temperatures between the end and center and
>>between two ends. I expect difference indicating difference in current at
>>various points.
>>
>>This will be the least disturbing measurement setup, no conductive nothing
>>disturbing the coil or antenna. I am assuming LCD thermometer is RF transparent
>>and I will verify that it does not detune the antenna/coil. Perhaps not very
>>accurate, but sufficient to demonstrate the debated differences.
>>The next measurements will be with current probes and RF ammeters. This will
>>give more accurate values.
>>
>>Any problems with that?
>>
>>Yuri, K3BU.us

No problems with that, but no results either.

73's
Richard Clark, KB7QHC

136. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 20:20:00 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <QlWXf.7813$4L1.5968@newssvr11.news.prodigy.com>
Source record: 61778

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Hecht forgot to put the phase difference in his formula.
>> It's no wonder there's no phase information in your
>> standing waves, Cecil, Hecht left it out.
>
>
> You are mistaken. If Hecht left it out then so did Gene Fuller.
> I suggest you listen to Gene when he says: Regarding the
> cos(kz)*cos(wt) terms in the standing wave equation:
>
>> Gene Fuller, W4SZ wrote:
>>
>>> In a standing wave antenna problem, such as the one you describe,
>>> there is no remaining phase information. Any specific phase
>>> characteristics of the traveling waves died out when the startup
>>> transients died out.
>>>
>>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen
>>> again.
>>>
>>> The only "phase" remaining is the cos (kz) term, which is really an
>>> amplitude description, not a phase.
>
>
>> Not only
>> that, but where did he get the idea that it was sin(kx) instead
>> of cos(kx). I understand Hecht is a good old boy, but I'd like to
>> see his derivations.
>
>
> Apparently, you are ignorant of the difference in conventions between
> optics and RF engineering. In optics, there is no current so there is
> no current changing phase at an open circuit. In optics, the M-field
> changes directions but not phase. In RF engineering, a change in
> direction of the H-field is considered to be a 180 degree phase shift.
> Both conventions are correct as long as one understands them. Your
> strange statement about Hecht above just proves your ignorance.

Whatever. I'd still like to see his derivations. In your case,
you're using the wrong equation anyway. What you really want is
Beta*l, or the radian length of your transmission line. You can
get that if you know, or can measure the usual parameters in the

transmission line impedance equation, using that equation to solve
for Beta*l. That won't prove your theory because you still haven't
shown that any one transmission line model is unique in terms of
substituting for your coil, but at least it'll give you something
to do.
73,
Tom Donaly, KA6RUH

137. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 20:50:36 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <qoJ9mFWckDMEFAN3@ifwtech.co.uk>
Source record: 61780

```
Yuri Blanarovich wrote:
>
>"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
>news:g3gPxvEsEYJEFAUl@ifwtech.co.uk...
>
>> From the beginning, then:
>snippydidudaa
>>
>> As we have seen, if the whip is loaded by pure inductance only, there is
>> no change in current between the two terminals of the inductance - but
>> there's a big step increase in voltage. At the upper terminal, the current
>> is the same but the voltage is very high, so we're into a much
>> higher-impedance environment.
>>
>
>Reality check here. I need explanation how the above could happen. "Current
>stays the same ... and the big step increase in voltage." As far as "idiot"
>professors taught me, (current x voltage) = power. So, am I to discover
>that the pure inductance is better than perpetual motion amplifier of power?
>More power coming out of the coil than going in? Eureka!!! How could I
>overlook that? :-)
>

Your professor would have told you that you "overlooked" the phase shift
in the voltage.

The rest is just more of the same kind of name-calling. You didn't
really read what I wrote, and you don't really want to hear any answers.
All you really want is a shouting match. Well, tough, you don't get one.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek
```

138. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 20:56:57 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <uUWXf.32$yZ6.23@fe12.lga>
Source record: 61779

<w8ji@akorn.net> wrote in message
news:1143998691.460370.255530@i40g2000cwc.googlegroups.com...
>
> Yuri Blanarovich wrote:
>> More astonishing than that, Until the "gurus" put their finger on the
>> coil,
>> or aquarium thermometer, or RF ammeter, or infrared scope and see that
>> the
>> loading coil (in a typical quarter wave resonant whip) is heating up at
>> the
>> bottom, being the reality that defies their "scientwific theories why it
>> shouldn't" - they will keep committing the same mental blunders over and
>> over.
>
> Yuri,
>
> No one I have seen has every said one tuern can't get hotter than
> another turn in a loading coil.
>
> For example, I can take a piece of airdux and short a single turn
> anywhere in the coil. That turn and the turns around it will get very
> hot, often even melting the form and discoloring the wire, even with
> modest power applied in a resoant circuit.
>
> I had my 75 watt Novice rig melt miniductor in certain spots way back
> in the very early 60's.
>

Stop right here. We are talking about perfectly good coil (Hustler 80m
resonator) no shorts between the turns, ne end effect shorting out turns
(and if so, then both ends are the same). Perfectly good coil, with wire
insulation intact, uniformly wound, uniform wire diameter (constant
resistance) good insulation, until wire gets red hot, and covered with what
appears to be heat shrink tubing.
When I applied about 600W to it, the coil obviously started to overhead,
with obvious tapered patter of heat distribution (no shorted turn culprit)
with most intense on the bottom, slowly tapering towrds the top. No signs of
similar "melting" at the top (to blame "shorted" turn from the top cap), nor
anywhere in the middle to indicate shorted turn.
If you do not believe that this could happen, than say so and I will provide
the evidence, I will melt another coil. If you believe and can relate some
of your melting to mirror this case, than please explain what else can cause
this besides the current being SIGNIFICANTLY higher at the bottom than at
the top.

What I know from the thermodynamics, that heat rises to the top. If the current was (almost) equal, then the coil would be heating up and starting to melt uniformly, with actually more pronounced effect at the top, due to the rising and adding heat from the lower part of the coil (no upside Buick here).
So lets talk specifics of the argument and not detours, please!

> The problem is wild theories are created from small grains of truth or
> factoids. It is the wild theories that people question.
>
I question reality that I experienced, claims to the contrary ("it can't be") and theories rode in support of pro and con.

> In an effort to support the wild claims, there seems to be an effort to
> dismiss anything but the wild theories. Here is how it goes:
> 1.) My Hustler antenna loading coil (known to be a poor electrical
> design) melted the heatshrink at the bottom
>
Maybe poor electrical design, but perfectly sound coil, with uniform insulated wire, wound on perfect cylinder. It was Hustler coil with its physical properties and heatshrink tubing over the turns that magnified the effect and attracted my attention.

> 2.) This must be becuase there is only high current at the bottom of
> every loading coil.
>

I will disregard the rest of your post as a irrelevant crap, typical of your prior riding in on a high horse, ridiculing and pontificating. If you can stay on the technical side of the discussion we will continue, if you can't, then play the "guru" and we are all "stay stoooopid"!

Yuri

> 3.) This must be because the standing waves on the antenna all wind up
> in the loading coil.
>
> 4.) This must mean all loading coils act just like they are the x
> degrees of antenna they replace.
>
> 5.) This is why, no matter what we do with loading coil Q, efficiency
> doesn't change much.
>
> 6.) We will write a IEEE paper about this astounding fact, since all
> the texbooks about loading coils or inductors in general must be wrong
>
> 7.) Anyone who point out it is imperfections in the design of the
> system that cause this must be wrong, since I saw the coil get hot
>
> 8.) Anyone who disagrees with me must think himself a guru, and be
> incapable of learning or understanding how things work
>

> 9.) I know all this because the bottom of the coil gets hot in my
> antenna
>
> What's next? There is less current in a wire (coil) where wire (coil)
> gets
>> hotter?
>> Thermometers don't lie, meters don't lie, even EZNEC shows it! So
>> wasaaaaap?
>
> It's all been explained over and over again.
>
> If the termination impedance of the coil is very high compared to
> shunting impedances inside the coil to the outside world, a coil can
> have phase shift in current at each terminal and it can have uneven
> current distribution.
>
> This is not caused by standing waves or "electrical degrees" the coil
> replaces, but rather by the displacement currents which can provide a
> path for the through currents.
>
> Reg actually explained this very well, as has Roy, Tom D, Gene, Tom
> ITM, Ian, and a half dozen others.
>
> The reason you keep beating your head against the wall is you want to
> think the conclusions you formed were correct.
>
> If I wanted to design a loading coil that has virtually 100% current
> taper, I could. If I wanted to design one with virtually no taper, I
> could. I could actually have an antenna of a fixed height and by making
> various styles of loading coils go anywhere from nearly uniform
> distribution at each end of the coil to some significant taper.
>
> The problem is Cecil attributes it all to standing waves, and not to
> the inductor's design. You seem to be doing the same.
>
> Since we won't agree with your wrong theories, you then conclude we are
> saying step one is wrong and you never saw what you saw. Step one is
> fine. Step two is where everything you say falls apart.
>
> 73 Tom
>

139. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 21:08:28 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <h3XXf.35$yZ6.7@fe12.lga>
Source record: 61781

"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
news:QKhTu7Q+xAMEFAZL@ifwtech.co.uk...
> Yuri Blanarovich wrote:
>>"Cecil Moore" <mycall@hotmail.com> wrote in message >
>>> Until the gurus take the time to understand the nature of
>>> standing waves in standing waves antennas, they will keep
>>> committing the same mental blunders over and over.
>>> --
>>> 73, Cecil http://www.qsl.net/w5dxp
>>
>>
>>More astonishing than that, Until the "gurus" put their finger on the
>>coil,
>>or aquarium thermometer, or RF ammeter, or infrared scope and see that the
>>loading coil (in a typical quarter wave resonant whip) is heating up at
>>the
>>bottom, being the reality that defies their "scientwific theories why it
>>shouldn't" - they will keep committing the same mental blunders over and
>>over.
>>
>>What's next? There is less current in a wire (coil) where wire (coil) gets
>>hotter?
>>Let the games begin!
>>
>>Thermometers don't lie, meters don't lie, even EZNEC shows it! So
>>wasaaaaap?
>
> If you're looking for an argument, you're looking in the wrong place.
>
> Nobody denies the raw evidence, like the fact that some loading coils get
> hotter at the bottom than at the top... and the fact that some other coils
> don't (or nowhere near as much).
>

So what is the reason? Isn't the higher current through the same resistance
wire cause of more heat development? We now why and Cecil explained it.
Depends where the coil is placed in the antenna and its place on the cosine
current distribution curve. It has been shown epxerimentally and also by
EZNEC when modeled properly as solenoid or loading stub. Yea, the "other"
zero size coils don't show that, EZNEC confirms that.

> There are good explanations for everything you see. But the only valid
> explanations are the ones that account for *all* the facts about *all*
> types of loading coils.
>

We are talking about typical loading coils in typical antennas, no need to go to "all" that would skew that and "prove" it ain't so.

> The argument is specifically about Cecil's attempts to explain the
> evidence, using his own particular ideas about "standing wave antennas".
> He makes it kinda work for the cases he wants to think about, but in other
> cases it gets things fundamentally wrong - and that isn't good enough.
>

As far as I see, it is not just Cecil's own idea or discovery, he attempted to explain the obvious effect and in the process found that there is more support and standing wave theory by others. So we have an effect, and (close enough) explanation and way of modeling it (close enough), but have a bunch of people that cling to "she's flat".

Yuri, K3BU/m

>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

140. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 21:10:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <p5XXf.7823$4L1.2808@newssvr11.news.prodigy.com>
Source record: 61782

Tom Donaly wrote:
> Whatever. I'd still like to see his derivations.

"Optics", by Hecht, 4th edition, page 289.

The intensity of a light beam is associated with the E-field
so Hecht's equations are in relation to the E-field.

Speaking of the light standing wave: "The composite
disturbance is then:

E = Eo[sin(kt+wt) + sin(kt-wt)]

Applying the indentity

sin A + sin B = 2 sin 1/2(A+B)*cos 1/2(A-B)

E(x,t) = 2*Eo*sin(kx)*cos(wt)"

Hecht says the standing wave "profile does not move through
space".

I have said the RF standing wave current profile does not move
through a wire.

Hecht says the standing wave phasor "doesn't rotate at all,
and the resultant wave it represents doesn't progress through
space - it's a standing wave."

I have said the same thing about the RF standing wave current
phasor.

Hecht says the standing wave transfers zero net energy. I have
said the same thing about RF standing waves.
--
73, Cecil http://www.qsl.net/w5dxp

141. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 21:18:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <dcXXf.7825$4L1.2834@newssvr11.news.prodigy.com>
Source record: 61783

Yuri Blanarovich wrote:
> It has been shown epxerimentally and also by
> EZNEC when modeled properly as solenoid or loading stub. Yea, the "other"
> zero size coils don't show that, EZNEC confirms that.

As a data point, the results of modeling a coil as a lumped
inductor Vs a helical coil are NOT the same in EZNEC. EZNEC
disagrees with itself.

I am much more inclined to trust the helically modeled inductance
than the lumped inductance.

As Dr. Corum says: "Distributed theory encompasses lumped circuits
and always applies." In other words, the Distrubuted network model
is a superset of the lumped circuit model.
--
73, Cecil http://www.qsl.net/w5dxp

142. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 21:19:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1230fue8b8chkbf@corp.supernews.com>
Source record: 61784

Frank's wrote:
>
> I think the EH is the same idea as the CFA; in which case the following
> paper
> says it all: http://www.fi.uba.ar/materias/6654/download/CFAantenna.pdf.
>
> It is hard to imagine going to these lengths to debunk nonsense, but I guess
> it is the only way.

And, as we periodically see here, even going to these lengths aren't
completely adequate.

Roy Lewallen, W7EL

143. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 21:49:30 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <LFXXf.21$K83.9@fe09.lga>
Source record: 61785

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:cs5032dv5sfba3hagm79obmcnrvs4e9iik@4ax.com...
> On Sun, 2 Apr 2006 12:07:38 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>>Thermometers don't lie, meters don't lie, even EZNEC shows it! So
>>wasaaaaap?
>
> Hi Yuri,
>
> That's a good question. The last you had to say, two years ago, was
> you were waiting for the snow to melt to provide a better measure.
>
> It must have been a particularly long and cold winter these two years.
>
> 73's
> Richard Clark, KB7QHC

No, but I got cut off the NG by AOL's dropping NGs and therefore lost touch with the severity of the problem. Also got too busy with real life, which I considered more important and didn't even dream that this still would be the problem.
I though that some of the unbelievers would by now done it, saw it, realized they were wrong and confessed. Apparently not. So I am glad to be still around and will try to either get educated or contribute to setting the record straight and correct the fallacies that are out there.
Sooo, nobody would try to do the experiment and SEE it, but rather keep chasing the gay electron phasors charged with Kirchoffs through three way intersections and blame Bush for it?

Yuri, K3BU.us

144. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 22:19:30 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <lsidna0127Ny0K3ZRVn-iA@comcast.com>
Source record: 61786

Ian White GM3SEK wrote:

SNIPPED
>
> Your professor would have told you that you "overlooked" the phase shift
> in the voltage.
>
SNIPPED

Does this mean: "HERE WE GO AGAIN"?

I was taught that there is a 90 degree phase shift in an inductor. But, in a loading coil there must be less than 90 degree phase shift because the top portion of the antenna still has a small, ~3 to 5 degree, phase shift required to achieve resonance. So, does the inductance have a 90 degree phase shift or an approximate 85+ degree phase shift.

Voltage and current are in phase at the base and 90 degrees out of phase at the tip, at resonance, conclusion: less than 90 degree phase shift in the inductor. PLEASE EXPLAIN this physics anomaly!

:-)

145. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 22:27:20 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <2sM63YaI$EMEFAeb@ifwtech.co.uk>
Source record: 61787

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> Evidently I was in too much of a hurry to leave for the GMDX
>>convention, because what I mean to write next was:
>> "Cecil's theory does not work for this test case, "
>> [I definitely did type the word "not", but it accidentally
>>disappeared from the version that was posted.]
>
>Well there you have it, folks. Gurus don't even make typo mistakes.
>Some evil server removed that "not" on purpose from Ian's posting.
>

In trying to respond to your points as clearly as possible, some parts
of my previous posting went through several versions. I simply made a
mistake in editing that particular sentence. I have already apologised
for any confusion that might have caused.

>> Cecil's theory does not work for this test case,
>>> because it requires that basic electrical properties like current
>>>and inductance switch into a different kind of behaviour in what he
>>>calls a "standing wave environment".
>
>RF current switches from a different kind of behavior than DC current.

True, but irrelevant. You are asking for RF current to switch its
behaviour while still being RF current.

>Phase, capacitance, inductance, and wavelength all have to be taken
>into account in the steady-state analysis. That is a technical fact
>that I'm sure you appreciate.
>
Yes...

>Why is it such a stretch to recognize that standing wave current behaves
>differently from traveling wave current? That standing wave current is
>different from traveling wave current is readily apparent from the
>equations. In the following equations, 'K' is used for a constant,
>'z' is the linear distance up and down the line, and 'w' is omega.
>
>Forward traveling wave current = K1*cos(kz+wt)
>Reflected traveling wave current = K2*cos(kz-wt)
>Standing wave current =
>K1*cos(kz+wt) + K2*cos(kz-wt) = K3*cos(kz)*cos(wt)
>
>If tK1 = K2, then the standing wave doesn't move. Please dust off
>your old math books and realize what the above equations imply at

>a physical level.

Let's try it a different way. At any point located a distance z along the antenna, there is the normal cyclical variation in current I with TIME, so:

I(t, z) = Ipk(z) cos(wt)

where Ipk(z) is the peak value of the current at point z. The cos(wt) term represents the cyclical time dependence of the back-and-forth movement of electrons; it has no dependence on z.

Ipk(z) is simply a scaling factor whose value depends only on the LOCATION of point z within the antenna. It has NO time dependence.

The next issue to describe how Ipk varies with the location z along the wire. The aim of antenna analysis is to find out what the current distribution along the wire(s) actually is. All the rest of the antenna's properties can be calculated from this.

Ipk(z) does not have to be a simple cosine function as you seem to assume above. A cosine function may be a good approximation for very simple (or simplified) cases; but when the antenna includes a physical discontinuity such as a loading coil, Ipk(z) will definitely NOT be a simple cosine function of distance z. So in general it will not be correct to bundle the z dependence into the same cosine function as (wt).

There are several methods of finding the current distribution. If you choose a method based on forward, reflected and standing waves (which can be done), the "standing wave" is simply a plot of Ipk as a function of location z. Ipk(z) is a scalar quantity representing the peak magnitude of the current, and its only dependence is on LOCATION. It is not an alternating RF current because it has no time dependence.

"Current" remains what it always was: simply the movement of charge (electrons). If it's an alternating RF current, the cos(wt) term describes how the charge moves cyclically forward and back past the observation point. A loading coil, the RF ammeter or the current-transformer measuring probe all respond to exactly the same cyclical back-and-forth movement of charge.

In the standing wave analysis, the current is still the net movement of charge, ie the instantaneous difference between the forward and reflected currents. These vary together in time according to cos(wt). It is not possible to measure the "wrong kind" of current by mistake, because there is only one kind.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

146. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 22:34:11 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <EjYXf.38$B31.23@fe10.lga>
Source record: 61788

Richard Clark challenged me:
>
> Didn't you start a new thread to clear out the cobwebs? That seems to
> have gone the way of the dodo.
>
>
> Hi Yuri,
>
> Instead of chewing old gum over and over again, why not simply fulfill
> a promise offered two years ago?
>

Yea, the dodo was the contest I was trying to beat another record and then the fricken taxes came.

I will dust off my whips and coils and do some 'sperimenting.
But where are all the gurus? Nobody got mobile antenna and can do crude "feel the turns" 'speriment?
Must be too busy with charger 'lectrons, Eh?!

Yuri, K3BU

147. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 22:41:35 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <AqYXf.39$B31.18@fe10.lga>
Source record: 61789

"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
news:qoJ9mFWckDMEFAN3@ifwtech.co.uk...
> Yuri Blanarovich wrote:
>>
>>"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
>>news:g3gPxvEsEYJEFAUl@ifwtech.co.uk...
>>
>>> From the beginning, then:
>>snippydidudaa
>>>
>>> As we have seen, if the whip is loaded by pure inductance only, there is
>>> no change in current between the two terminals of the inductance - but
>>> there's a big step increase in voltage. At the upper terminal, the
>>> current
>>> is the same but the voltage is very high, so we're into a much
>>> higher-impedance environment.
>>>
>>
>>Reality check here. I need explanation how the above could happen.
>>"Current
>>stays the same ... and the big step increase in voltage." As far as
>>"idiot"
>>professors taught me, (current x voltage) = power. So, am I to discover
>>that the pure inductance is better than perpetual motion amplifier of
>>power?
>>More power coming out of the coil than going in? Eureka!!! How could I
>>overlook that? :-)
>>
>
> Your professor would have told you that you "overlooked" the phase shift
> in the voltage.
>
> The rest is just more of the same kind of name-calling. You didn't really
> read what I wrote, and you don't really want to hear any answers. All you
> really want is a shouting match. Well, tough, you don't get one.
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

Yep, when we try to argue the case, it ends up like this. So you know what I
read, but you would not want to explain, enlighten this "dummy" what is
going on, eh?
Uhm, the phase shift is different for current and different for voltage, or
you claim that current distribution curve would be way different from the

voltage distribution curve?
Can you draw the picture of current and voltage distribution in the case in question or provide the file for EZNEC or whateverNEC?

Got it!

Yuri, K3BU

148. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 22:45:28 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <Bt8n34bIQFMEFApe@ifwtech.co.uk>
Source record: 61790

Cecil Moore wrote:
>> The argument is specifically about Cecil's attempts to explain the
>>evidence, using his own particular ideas about "standing wave
>>antennas". He makes it kinda work for the cases he wants to think
>>about, but in other cases it gets things fundamentally wrong - and
>>that isn't good enough.
>
>That's just not true, Ian. If the distributed network model agrees
>with the lumped circuit model, then the lumped circuit model is
>being used in an appropriate situation. If the distributed network
>model disagrees with the lumped circuit model, then the lumped
>circuit model is being used in an inappropriate situation. The
>distributed network model is always right when it disagrees with
>the lumped circuit model. The distributed network model is a
>*superset* of the lumped circuit model. To quote Dr. Corum:
>
>"Distributed theory encompasses lumped circuits and always applies."
>
>And before you dismiss Dr. Corum as a "crackpot", as others have,

I don't intend to - that quotation is perfectly correct. It means that in a test-case situation where the lumped model *does* apply, the distributed model will give EXACTLY the same results.

This is the test case that I'm trying to make you apply, to check that with a lumped-inductance load, your antenna theory predicts the correct behaviour, namely no phase shift in the current through a lumped inductance.

There's no problem with the distributed circuit model. There's no problem with the lumped circuit model as a subset of that. All the problems are with your incorrect application of those models.

The underlying problem is that you don't see the difference.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

149. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 22:59:02 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144018741.963017.280180@i39g2000cwa.googlegroups.com>
Source record: 61791

But if you feed a coaxial collinear at the center instead of at an end, the top and bottom portions will have tilts in opposite directions, and the maximum of the pattern will remain perpendicular to the axis of the antenna, at least over a broad range of frequencies. The gain will change, but not drastically; matching properly to the feedpoint over the range of frequencies is likely going to be the bigger issue.

And if the OP puts the gain antenna on a panel which can be tilted at various angles, the performance may well be far from what he really wants. I'd suggest a small stand of some sort that will keep the antenna in a fixed position, if the panel can move.

Cheers,
Tom

150. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-02 23:25:36 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <gN2dnYqR4JwhwK3ZRVnygA@bt.com>
Source record: 61792

- - - - and placing a choke at 1/4-wave intervals all along the transmission line is not of great help - it is effective only at one frequency.

Reg.

151. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 00:01:19 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <fQdwociPXGMEFA4Q@ifwtech.co.uk>
Source record: 61818

Yuri Blanarovich wrote:
>
>"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
>> The rest is just more of the same kind of name-calling. You didn't really
>> read what I wrote, and you don't really want to hear any answers. All you
>> really want is a shouting match. Well, tough, you don't get one.
>> --
>> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
>> http://www.ifwtech.co.uk/g3sek
>
>
>Yep, when we try to argue the case, it ends up like this. So you know what I
>read, but you would not want to explain, enlighten this "dummy" what is
>going on, eh?

I already told you what is going on, the best and most accurate way I know. It isn't easy, and it took some time to make it concise and clear.

Your questions are based on a totally different way of looking at it, much of which I don't even accept as valid. Unfortunately that means I cannot answer them in any way that would make sense to me.

>Uhm, the phase shift is different for current and different for voltage,

If you mean the phase differences across the coil, then this is one I can answer: yes, that is exactly what I mean. The phase difference across the coil is quite small for the current but much larger for the voltage. This is normal behaviour for inductance. When current is being pushed through an inductance into a small capacitance, it generates a high voltage across the inductance, and also a large phase shift in that voltage. That is the dominant feature when the inductance of your real-life loading coil drives current into the relatively short top section of the whip.

>Can you draw the picture of current and voltage distribution in the case in
>question or provide the file for EZNEC or whateverNEC?

I did some drawings in a RadCom article - and we could certainly use a few diagrams here. It's late now and I have a tower to take down tomorrow... get back to you later.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

152. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 00:41:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Va_Xf.54947$F_3.32439@newssvr29.news.prodigy.net>
Source record: 61793

Ian White GM3SEK wrote:

> Cecil Moore wrote:
>> RF current switches from a different kind of behavior than DC current.
>
> True, but irrelevant. You are asking for RF current to switch its
> behaviour while still being RF current.

Standing wave RF current does not exhibit the same behavior as traveling
wave RF current. If you understood the formulas, you would understand
my statement.

> where Ipk(z) is the peak value of the current at point z. The cos(wt)
> term represents the cyclical time dependence of the back-and-forth
> movement of electrons; it has no dependence on z.

Therefore, the phase of the standing wave current has no dependence
on z. In fact, for a 1/2WL thin-wire dipole the phase is fixed
at zero degrees no matter what is the value of z.

Moral: Standing wave current phase cannot be used to measure the
delay through a piece of wire, much less the delay through a coil.
But that's exactly what W7EL measured. Now do you see why those
measurements were meaningless?

THE PHASE OF THE CURRENT IN AND AROUND A LOADING COIL HAS NO DEPENDENCE
ON Z. Think about the implications of your statement.

> Ipk(z) is simply a scaling factor whose value depends only on the
> LOCATION of point z within the antenna. It has NO time dependence.

There is an Ipk1(z) at the bottom of the coil. There is an Ipk2(z)
at the top of the coil. Both of them have NO time dependence.
Therefore, the phase shift between them CANNOT be used to determine
the delay through a coil.

> The next issue to describe how Ipk varies with the location z along the
> wire. The aim of antenna analysis is to find out what the current
> distribution along the wire(s) actually is. All the rest of the
> antenna's properties can be calculated from this.
>
> Ipk(z) does not have to be a simple cosine function as you seem to
> assume above.

I do NOT assume a simple cosine function. I have said many times that
the fields of the loading coil warps the current waveform away from
the simple cosine function. It puts a bump in the cosine curve but

the fact remains that the current envelope magnitude contains the only phase information in the standing wave current. Above, you have essentially agreed with Gene Fuller that zero phase information exists in the standing wave current except in the magnitude.

> A cosine function may be a good approximation for very
> simple (or simplified) cases; but when the antenna includes a physical
> discontinuity such as a loading coil, Ipk(z) will definitely NOT be a
> simple cosine function of distance z. So in general it will not be
> correct to bundle the z dependence into the same cosine function as (wt).

I suggest that the standing wave current for each segment of the antenna can be plotted as has been done at:
http://www.k6mhe.com/n7ws/Loaded%20antennas.htm in figure 3
and that a cosine function can be plotted underneath that curve. Associating the bottom of the coil with one point on the cosine curve and the top of the coil with another point on the cosine curve will allow us to make a *rough* estimate of the delay through the coil. The cosine curve doesn't disappear - it is just warped by the current distribution through the coil.

> There are several methods of finding the current distribution. If you
> choose a method based on forward, reflected and standing waves (which
> can be done), the "standing wave" is simply a plot of Ipk as a function
> of location z. Ipk(z) is a scalar quantity representing the peak
> magnitude of the current, and its only dependence is on LOCATION. It is
> not an alternating RF current because it has no time dependence.

Yet W7EL used that current with no time dependence to try to measure the delay through a coil. I don't recall you objecting.

> "Current" remains what it always was: simply the movement of charge
> (electrons). If it's an alternating RF current, the cos(wt) term
> describes how the charge moves cyclically forward and back past the
> observation point. A loading coil, the RF ammeter or the
> current-transformer measuring probe all respond to exactly the same
> cyclical back-and-forth movement of charge.

Yes, but two RF ammeters gives us a different and more complete view of reality. In a traveling wave antenna, the two RF ammeters would read the same value. In a standing wave antenna, the values read by the two RF ammeters depend upon where they are located. In the 1WL standing wave antenna at: http://www.qsl.net/w5dxp/1WLDIP.GIF, an RF ammeter located at point B might read one amp. An identical RF ammeter located at point D will read zero amps.

> In the standing wave analysis, the current is still the net movement of
> charge, ie the instantaneous difference between the forward and
> reflected currents.

There is no net transfer of energy in a pure standing wave. As Hecht says: "Its profile does not move through space." Nor does it move through a wire. Here's the above 1WLDIP.GIF wire replaced

by a loading coil.

```
|----1/4WL---|-1/4WL-|----------1/2WL------------|

------A------B-/////-D-------------fp-------------
```

An RF ammeter placed at B may read one amp. An identical RF
ammeter placed at D will read zero amps. How can one amp
be "flowing" out of the top of the coil while zero amps
is "flowing" into the bottom of the coil. That is standing
wave current and it is NOT flowing. It is just standing still
as explained by Hecht.

> These vary together in time according to cos(wt). It
> is not possible to measure the "wrong kind" of current by mistake,
> because there is only one kind.

Sorry, you are wrong about that. A look at the equations while
varying 'x' proves your statement is wrong. Please reference what
Hecht said about those equations in another one of my postings.

You have already admitted that there is more than one kind of
current, e.g. DC Vs RF. It's time to admit that standing wave
current and traveling wave current have different equations and
therefore are different "kinds" of current.
--
73, Cecil http://www.qsl.net/w5dxp

153. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 00:48:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zh_Xf.54996$F_3.13272@newssvr29.news.prodigy.net>
Source record: 61794

Ian White GM3SEK wrote:
> I don't intend to - that quotation is perfectly correct. It means that
> in a test-case situation where the lumped model *does* apply, the
> distributed model will give EXACTLY the same results.

Ian, you know nothing is "EXACTLY" the same. All you can say is that
the two models give acceptably similar results within a certain range
of accuracy.

To paraphrase Roger Whittaker: "'EXACTLY' is for Children Spinning
Daydreams".

> This is the test case that I'm trying to make you apply, to check that
> with a lumped-inductance load, your antenna theory predicts the correct
> behaviour, namely no phase shift in the current through a lumped
> inductance.

:-) That's like proving there's no loss in a lossless transmission
line, Ian. Please send me a 100 uH lumped inductance and I will
run some tests on it and report back to you. What do you want to
bet the lumped circuit model will be wrong?

Some people have a problem with their model trying to dictate reality.
You seem to have fallen into that trap. Allow me to raise my voice.

THERE IS NO SUCH THING IN REALITY AS A LUMPED INDUCTANCE!!!!

The lumped circuit model is an approximation to reality. It has
been patched numerous times as situations came up that it could
not handle. Sometimes it works and sometimes it doesn't work.
Since the distributed network model is a superset of the lumped
circuit model, if there is ever any disagreement between the two
models, the distributed network model wins every time.

The test is not whether the distributed network model yields the
same results as the lumped circuit model. The test is whether
the lumped circuit model yields the same results as the
distributed network mode. That's what the argument is all about.
The distributed network model is the GOLD standard. The lumped
circuit model is just a pale approximation to reality.

> There's no problem with the distributed circuit model. There's no
> problem with the lumped circuit model as a subset of that. All the
> problems are with your incorrect application of those models.

That may be true, but we will never know until you (and others)
recognize the difference between standing wave current and

traveling wave current as explained in my other posting. But
in case you missed it, here is a one wavelength dipole fed 1/4
WL from the right end. ///// is a 90 degree loading coil.

------A------B-/////-D-------------fp-------------

The current at B is measured by an RF ammeter at one amp. The
current at D is measured by a similar RF ammeter at zero amps.
I can provide an EZNEC model if you like. How does your lumped
circuit model explain those measured results?
--
73, Cecil http://www.qsl.net/w5dxp

154. RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 00:54:03 UTC
From: Marco Licetti <MetalBladeDEATH2SPAMMERS@DEATH2SPAMMERSprodigy.net>
Message-ID: <Lm_Xf.8567$%m4.2587@newssvr33.news.prodigy.com>
Source record: 61795

I am not here to pester about own company - I do NOT work for this but just to share experience:
For antenna remoting, etc RF-over-fiberoptic we found www.miteq.com is the best, somehwhat EXPENSIVE but tech specs are best in the world (noise, gain flatness, etc). As you know fiberoptic is the ONLY solution for LOSSLESS & SAFE transmitting RF over a long distance e.g. from antennas, on ship/aircraft, etc because first unlike Coax cable fiber doesn't suffer from excessive loss (you can have a 10-kilometer link no problem!), second it's hard to intercept (if you break fiber it iwll be notices, while Coax cable can be tapped in illegally), third it's immensely interference-immune, etc, etc. though mor eexpensive.

That we found perfcect for Antenna remoting when facilities cannot be built near each antenna (antenna array), also for spying/military application fiber is safer than coax cble, and finally on aircrafts, etc you would prefer fiberoptic due to its immunity to interference (life-safety issues).
So www.miteq.com I found by clicking on "components & assemblies" (NOT satellite comm)-->the clicked "fiberoptic products", they even posted datasheets and brochures there (maybe too much info!)

155. FA: 8 Books: HAM RADIO, SIX METERS, VEC, Electronics, Antennas, etc.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 01:11:10 UTC
From: Lesley <lesley@lkjoiiqifaf.com>
Message-ID: <020420062111100615%lesley@lkjoiiqifaf.com>
Source record: 61796
Cross-posted to:
rec.radio.amateur.equipment,alt.ham-radio.marketplace,rec.radio.amateur.antenna,misc.industry.electronics.marketplace

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=4627975156

156. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 01:11:30 UTC
From: richardharrison@webtv.net
Message-ID: <11762-44307642-861@storefull-3252.bay.webtv.net>
Source record: 61798

Ian, GM3SEK wrote:
'There are several methods of finding current distribution."

"I may be a fool, but I`n not the fool to be pitied because I disagreed with Terman. On page 893 of the 1955 edition of "Electronic and Radio Engineering" Terman writes:
"An antenna can therefore be regarded as a resonant system with distributed constants. As a result, the impedance of an antenna behaves in much the same manner as does the impedance of a transmission line (see Sec. 4-7)."

This is not news to many thread participants. Fig. 4-7 on page 96 shows an open-circuited transmission line. At the open circuit there is maximum voltage and zero current. Except for radiation and loss to heat, the typical standing-wave antenna would behave much the same as this ideal transmission line.

Not only does Terman give voltage and current diagrams, he gives a phase diagram. It shows that whenever the voltage or current crosses the zero axis (changes sign) the phase angle changes abruptly by 180-degrees. Phase is unchanging between these inflection points. This agrees with what Cecil has said all along in this discussion.

Best regards, Richard Harrison, KB5WZI

157. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 01:18:30 UTC
From: w8ji@akorn.net
Message-ID: <1144027110.027962.11830@e56g2000cwe.googlegroups.com>
Source record: 61797

Dave wrote:

> I was taught that there is a 90 degree phase shift in an inductor.

Dave, there is a phase shift between applied voltage and maximum
current. That should not be confused with phase shift or phase
difference in current at both ends of the inductor.

,
> in a loading coil there must be less than 90 degree phase shift because
> the top portion of the antenna still has a small, ~3 to 5 degree, phase
> shift required to achieve resonance. So, does the inductance have a 90
> degree phase shift or an approximate 85+ degree phase shift.

No.

What happens in an antenna is voltage and current are out-of-phase by
some amount. This by definition means the antenna is reactive.

The loading coil's primary function is to shift voltage in relationship
to current, and compensate the relationship between voltage and current
so they are back in phase.

If the loading coil is physically large and has a good amount of
displacement current flowing radially to space and objects around the
antenna compared to through current, the coil would have a noticable
difference in current at the bottom terminal and top terminal. The
current also would also not be in phase when compared at each end.

> Voltage and current are in phase at the base and 90 degrees out of phase
> at the tip, at resonance, conclusion: less than 90 degree phase shift in
> the inductor. PLEASE EXPLAIN this physics anomaly!

Again, you are comparing electrical degrees of the antenna with degrees
phase shift between voltage and current in a circuit containing only a
pure inductor.

Degrees of antenna only deals with the length. It is a way of
expressing length in terms of wavelength, with 360 degrees being a full
wavelength.

Degrees of phase angle in an antenna or any load is really just a
comparison between voltage and current. It is not related to electrical
degrees.

Mixing those two very different things up is a source of great
confusion. If we have a 10 degree tall antenna we really don't need an
inductor that behaves like it is a 80 degree long antenna section to
resonate the system, and the system is not "90-degree resonant". It is

simply resonant. The antenna is 10 degrees long, and the coil is whatever it needs to be to bring voltage back in phase with current.

Consider this. If I have a coil in series with a resistor and measure the input voltage as a reference point, the current at BOTH ends of the coil will lag voltage by a certain amount. If the coil has low capacitive reactance to the outside world compared to the load resistance, current at each end of the coil will be essentially equal. Phase shift in current at each end will be very low.

It's only when the coil becomes physically large and has appreciable capacitive reactance to the outside world compared to the load impedance that it starts to show significant transmission line effects.

Every bit of this is not difficult to understand if we really understand how an antenna behaves and how a coil behaves. The only source of wonderment and argument seems to come from people who want to make the inductor behave differently in an antenna than it behaves in other systems.

It really isn't complicated at all. The very first post in this 900 plus post long thread explained it quite well, and it's been explained dozens of more times along the way. There is no reason to assign special properties to an inductor and make it behave differently in an antenna than it does in other systems.

73 Tom

158. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 01:27:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <60u032hnsq7ll9nai6pmil0c66d3el8emd@4ax.com>
Source record: 61799

On Sun, 2 Apr 2006 18:34:11 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:
>I will dust off my whips and coils and do some 'sperimenting.
>But where are all the gurus? Nobody got mobile antenna and can do crude
>"feel the turns" 'speriment?
>Must be too busy with charger 'lectrons, Eh?!

Hi Yuri,

This was YOUR self-appointed mission. If it doesn't count for much,
or it has no relevancy, then say so and by all means drop it. This
revisiting of old battleground cemeteries is stodgy tourism and I
prefer Buenos Aires. Seeing Evita's tomb in the Recolleta is far more
interesting than watching the grave robbing here.

73's
Richard Clark, KB7QHC

159. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 01:31:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <MV_Xf.55008$F_3.16428@newssvr29.news.prodigy.net>
Source record: 61800

w8ji@akorn.net wrote:
> If the loading coil is physically large and has a good amount of
> displacement current flowing radially to space and objects around the
> antenna compared to through current, the coil would have a noticable
> difference in current at the bottom terminal and top terminal.

How does one amp at the top and zero amps at the bottom grab you?
Please see my other postings.

> It's only when the coil becomes physically large and has appreciable
> capacitive reactance to the outside world compared to the load
> impedance that it starts to show significant transmission line effects.

Which is certainly the case for a 75m bugcatcher coil.

> Every bit of this is not difficult to understand if we really
> understand how an antenna behaves and how a coil behaves. The only
> source of wonderment and argument seems to come from people who want to
> make the inductor behave differently in an antenna than it behaves in
> other systems.

The 75m bugcatcher coil certainly behaves differently mounted
one foot above a GMC pickup ground plane than it behaves in
free space. The question is: which is more common? A GMC pickup
or free space?

> There is no reason to assign
> special properties to an inductor and make it behave differently in an
> antenna than it does in other systems.

There is no reason to assume an inductor behaves differently
above a GMC truck ground plane than it behaves in free space???
Tom, would you please describe the free space that exists inside
your head?
--
73, Cecil http://www.qsl.net/w5dxp

160. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 01:32:59 UTC
From: w8ji@akorn.net
Message-ID: <1144027979.662007.152180@g10g2000cwb.googlegroups.com>
Source record: 61801

Roy Lewallen wrote:
> Frank's wrote:
> >
> > I think the EH is the same idea as the CFA; in which case the following
> > paper
> > says it all: http://www.fi.uba.ar/materias/6654/download/CFAantenna.pdf.
> >
> > It is hard to imagine going to these lengths to debunk nonsense, but I guess
> > it is the only way.
>
> And, as we periodically see here, even going to these lengths aren't
> completely adequate.
>
> Roy Lewallen, W7EL

That's because the EH antenna and the CFA antenna are based on a
religion or faith, not on science.

No matter what facts multiple independent sources submit, those who
have faith will ignore the facts.

73 Tom

161. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 01:38:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <G0%Xf.55012$F_3.49982@newssvr29.news.prodigy.net>
Source record: 61802

Richard Harrison wrote:
> Not only does Terman give voltage and current diagrams, he gives a phase
> diagram. It shows that whenever the voltage or current crosses the zero
> axis (changes sign) the phase angle changes abruptly by 180-degrees.
> Phase is unchanging between these inflection points. This agrees with
> what Cecil has said all along in this discussion.

Kraus agrees. Yet W7EL used that unchanging phase to measure the
delay through a loading coil. What's wrong with that picture?

Some people, who no doubt have recognized their technical errors,
simply refuse to discuss the technical subjects. Ian, OTOH, seems
open to discussing those topics so please don't be too hard on him.
An honest person deserves respect whether he is right or wrong.
--
73, Cecil http://www.qsl.net/w5dxp

162. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 01:41:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <q3%Xf.55014$F_3.31154@newssvr29.news.prodigy.net>
Source record: 61803

w8ji@akorn.net wrote:
> No matter what facts multiple independent sources submit, those who
> have faith will ignore the facts.

:-) That apparently includes individuals with faith in the
lumped circuit model under conditions where it is known to
fail. :-)
--
73, Cecil http://www.qsl.net/w5dxp

163. Re: RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 01:46:23 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <1230vlo9u8mucdd@corp.supernews.com>
Source record: 61804

Marco Licetti wrote:
> I am not here to pester about own company - I do NOT work for this but just
> to share experience:
> For antenna remoting, etc RF-over-fiberoptic we found www.miteq.com is the
> best, somehwhat EXPENSIVE but tech specs are best in the world (noise, gain
> flatness, etc). As you know fiberoptic is the ONLY solution for LOSSLESS &
> SAFE transmitting RF over a long distance e.g. from antennas, on
> ship/aircraft, etc because first unlike Coax cable fiber doesn't suffer from
> excessive loss (you can have a 10-kilometer link no problem!), second it's
> hard to intercept (if you break fiber it iwll be notices, while Coax cable
> can be tapped in illegally), third it's immensely interference-immune, etc,
> etc. though mor eexpensive.
>
> That we found perfcect for Antenna remoting when facilities cannot be built
> near each antenna (antenna array), also for spying/military application
> fiber is safer than coax cble, and finally on aircrafts, etc you would
> prefer fiberoptic due to its immunity to interference (life-safety issues).
> So www.miteq.com I found by clicking on "components & assemblies" (NOT
> satellite comm)-->the clicked "fiberoptic products", they even posted
> datasheets and brochures there (maybe too much info!)
>
>
>

I'm a little confused here. Fiberoptic cables don't carry RF, they only
transmit light. What I read in the advertising is a "bandwidth" of upto
atleast 11Ghz. This is a data rate not a RF energy transmission capacity.
Fiberoptic cable is made of "glass" which is nonconductive to RF energy.
Can you expand on the subject.

Dave Nagel

164. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 01:55:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b5v032duils7gdgd8ur7o21icrutk3dkji@4ax.com>
Source record: 61805

On Sun, 2 Apr 2006 17:49:30 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>Sooo, nobody would try to do the experiment and SEE it, but rather keep
>chasing the gay electron phasors charged with Kirchoffs through three way
>intersections and blame Bush for it?

Visit:
http://www.powerloafing.com/home/
and select the first offering
Bush Goes Powerloafing

W:
Carl, this is really nice cubicle you've got here.
I work in a oval. That's a cubicle with -uh- oval corners.
Rove:
OK hand it over
(waiting for W to surrender the bottle of hooch)
Rove:
Not until after your second term. All of it!
(taking the bottle and a bag of white substance)
W:
You're such a buzz-kill.

There's also a great episode of Cubicle Carl done as a Star Trek
segment.

73's
Richard Clark, KB7QHC

165. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 01:58:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hj%Xf.55017$F_3.18414@newssvr29.news.prodigy.net>
Source record: 61806

Cecil Moore wrote:
> Some people, who no doubt have recognized their technical errors,
> simply refuse to discuss the technical subjects. Ian, OTOH, seems
> open to discussing those topics so please don't be too hard on him.
> An honest person deserves respect whether he is right or wrong.

In accordance with my goal of being honest, here is some ammunition
for the other side of the argument. In Dr. Corum's IEEE paper he
said regarding the Z0 of a loading coil:

"It is worth noting that, for a helical anisotropic wave guide,
the effective characteristic impedance is not merely a function
of the geometrical configuration of the conductors (as it would
be for lossless TEM coaxial cables and twin-lead transmission
lines), but it is ALSO A FUNCTION OF THE EXCITATION FREQUENCY."

I have been assuming that the Z0 of a loading coil didn't change
much with frequency. Both Dr. Corum and EZNEC seem to disagree
with that assumption. So, as is my practice, I am using the
scientific method to adjust my concepts about that subject.

I hope this proves that I am only interested in the technical
facts which have not been proven one way or another as of
this posting.
--
73, Cecil http://www.qsl.net/w5dxp

166. Re: RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 02:03:14 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <3cc6g3-meh.ln1@p400bob.personal.cox.net>
Source record: 61807

Hi Marco

Yes but its more of use in a commercial/military than amateur radio environment.

I remember that certain cellular site installs I was involved in ran fiber from a the "main" RF TX/RX device to a remote location. The remote location simply had a broadband amplifier for the separate TX and RX. This was used in an underground railway station going out to maybe 3-4 locations. It was more cost effective doing it this way than by long coax runs at 900/1800MHz.

It will be a cost/benefit tradeoff of whatever RF/SMOF/RF interface device you have to purchase vs the cost of coax vs fiber.

This is something an amateur radio person isnt likely to do for his/her hobby. I also doubt whether it will be commercially viable for amateur radio manufacturers to include fiber interfacing.

OBTW you can tap/intercept optical fibre .

Cheers Bob W5/VK2YQA

Marco Licetti wrote:
> I am not here to pester about own company - I do NOT work for this but just
> to share experience:

167. New website for AC6LA software

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 02:15:53 UTC
From: ac6la@arrl.net
Message-ID: <1144030553.427557.88160@i40g2000cwc.googlegroups.com>
Source record: 61808

The AC6LA website, formerly at www.qsl.net/ac6la, has been moved to:

http://www.ac6la.com/

This is a new domain name and may not yet be registered with all DNS
servers around the world. If the above link does not work, try:

http://www3.qth.com/~ac6lacom

The site contains antenna modeling software and other programs,
including:

MultiNEC - Run Antenna Modeling Programs on AutoPilot - $39
EZPlots - Plot EZNEC Frequency Sweep Data - $19
XLZIZL - Picture the Rest of Your Antenna System - Free
MakeGIF - Make a GIF / JPEG / PNG File from a Clipboard Copy - Free
TLDetails - Transmission Line Program with Animated Charts - Free
MoxGen - Moxon Rectangle Generator - Free

TLDetails and MoxGen are self-contained, the others require that you
have Excel 97 or later already installed.

Dan
AC6LA

168. Re: RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 02:36:54 UTC
From: Marco Licetti <MetalBladeDEATH2SPAMMERS@DEATH2SPAMMERSprodigy.net>
Message-ID: <aT%Xf.1365$mu2.618@newssvr24.news.prodigy.net>
Source record: 61809

Huh?
Listen person, it's easy: RF modulates laser at Tx, then at Rx light is demodulated into RF.
Problem is few companies are able to offers specs Miteq offers i.e. gain ;lfatness/distortion, noise, etc. to [preserve original RF signal and 11GHz is not really a limit, they mentioned 18GHz can be built on individual basis (probably costs $18,000 heheheh)

169. Re: RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 02:38:43 UTC
From: Marco Licetti <MetalBladeDEATH2SPAMMERS@DEATH2SPAMMERSprodigy.net>
Message-ID: <TU%Xf.1366$mu2.693@newssvr24.news.prodigy.net>
Source record: 61810

OK. Just one comment: intercepting fiberoptics is more complicated/costly
than metal "wires"

170. Re: SWR Tells Me??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 02:45:06 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <CX%Xf.28710$g6.3417@bignews8.bellsouth.net>
Source record: 61811

"jimbo" <jimbo62@spamex.com> wrote in message
news:n8Odnbf6bInxW4PZRVn-qQ@comcast.com...
> OK, I have a new 2 meter j-pole antenna installed in my 3rd floor attic. I
> have 50 feet of LMR240 coax running to the basement. I measure SWR at the
> following frequencies on simplex.
>
> 144.2 2.5
> 145.2 2.4
> 146.2 2.3
> 147.2 1.9
> 147.9 1.7
>
> Can I conclude that the antenna is electrically short for the 2 meter
> band?
>
> Thanks for any insight, jimbo

My experience has been that J poles can be fairly fiddely things to really
get right.
By right I mean SWR nearly 1:1 right in the middle of the band. However if
you are not so concerned with 'rightness' they can be a quick cheap way to
get on the air and I have nothing against that. I doubt if putting the
antenna up in the attic help much more than having it in the room near your
position. I have one I travel with made up like a pole lamp(remember these
from the 50s,60s).

Could be too short, Phasing section may be too long. Maybe both. Feedpoint
is probably in the wrong place. Balun couldnt hurt. Add about 10 inches of
coax to the feedline and check SWR again if it changes significantly you
need the balun. Not something fun to play with in the attic.

171. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 02:54:10 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <y70Yf.60$yZ6.41@fe12.lga>
Source record: 61812

<w8ji@akorn.net> wrote in message
news:1143142526.021154.67050@e56g2000cwe.googlegroups.com...
> This thread belongs back in the original place, so it flows in context.
>
Sorry I had to take a break and lost the place in original place, so lets
try to continue here, we are trying to go step by step.

> Yuri Blanarovich wrote:
>> OK, I have been accused of being wrong, claiming that current across the
>> antenna loading coil is or can be different at its ends.
>
> No one said that.
>
So what is it then you claiming being equal.

>> I and "my camp" say that we are seeing somewhere 40 to 60 % less current
>> at
>> the top of the coil, than at the bottom, in other words, significant or
>> noticeable drop.
>
> Quit trying to make it a gang war. It is antenna theory, not a bar
> room brawl with a bunch of drunks.
>
No gang wars intended, just trying to underline that there are two major
supporting "camps" claiming that the current has to be equal, or is
appreciably different.

>> W8JI and "his camp" are claiming it can't be so, current through the coil
>> has to be the same or almost the same, with no significant drop across
>> the
>> loading coil.
>
> I have no camp. You are lifting what I say out of context and deleting
> important things.
>
> What I say, over and over again, is I can build an inductor in a short
> mobile antenna that has essentially equal currents at each end. A
> compact loading coil of good design has this type of performance.
>
I can do that too and do not deny it.

> The current taper across the inductor is not tied to the number of
> "electrical degrees" the inductor "replaces". It is tied to the
> distributed capaciatnce of the coil to the outside world in comparison
> to the termination impedance at the upper end of the coil.

>
That too, but that seems to be minor cause. Lets do it step by step.
I will skip agreements so far.

>> The current distrubution on said (full size) vertical is one quarter of
>> the
>> wave of 360 deg. which would make it 90 degrees. Max current is at the
>> base
>> and then diminishes towards the tip in the cosine function down to zero.
>> Voltage distribution is just opposite, min at the base, feed point and
>> max
>> at the tip. EZNEC modeling shows that to be the case too.
>> Is that right or wrong?
>
> Right. Although the distributed capacitance can change the shape.
>
It can change the amplitude, but not the shape of the current distribution
curve, that is the maximum is at the feed point (zero reactance - resonance)
and zero at the tips and follows cosine function.

>> If we stick them end to end and turn horizontal, we get dipole, which
>> then
>> would be 180 deg. "long" or "180 degrees resonant".
>> If not, what is the right way?
>
> Right.
>
>> If I insert the coil, say about 2/3 up (at 5 ft. from the bottom) the
>> shortened vertical, I make the coil size, (inductance, phys. dimensions)
>> such that my vertical will shrink in size to 8 ft tall and will resonate
>> at
>> 7.87 MHz.
>> I learned from the good antenna books that this is still 90 electrical
>> "resonant" degrees.
>> Maximum of current is at the feed point, minimum or zero at the tip.
>
> What "good book"? It would help to see the context.
>
Say ARRL Antenna Book, 20th edition, page 16-7, Fig 10
Shows lengths h1 and h2 expressed as 15 deg. eaach.

> None of my engineering books use electrical degrees except to describe
> overall antenna height or length.
>
But that relates to describing the antenna properties in relation to
resonant frequency for that particular radiator.

> They might say "60 degree top loaded resonant radiator" but they don't
> say "60 degree tall radiator 90 degree resonant".
>
If you stick the coil at the base in series with radiator and bring it to

resonance (zero reactance at the frequency of interest) what "degree resonant" will than radiator become, if not 90? ("Measured" from the feed point, through the coil and then straight radiator.)

> There might be a correct context, but I can't think of one off hand. So
> I need an example from a textbook.
>
>> If you stick those verticals (resonant) end to end and horizontal, you
>> get
>> shortened dipole, with current distribution equal to 180 degrees or half
>> wave. Max current at the feed point, minima or zero at the tips.
>> (RESONANT
>> radiator)
>
> The current distribution would not be the same as a half wave, becuase
> the antenna is not 1/2 wave long.
>
Well, is 180 degrees half wavelength or not? Is the current maximum at the feedpoint (center) and zero at the end, or not? The current distribution is not the same, but is exhibiting properties of resonant half wave dipole with current max at the center and zero at the tips. The shape is not the smooth continuous cosine curve as in straight dipole, but affected by the loading coils (drops) in their place (subject of disagreement).

>> Can we describe "pieces" or segments of the radiator as having
>> proportional
>> amount of degrees corresponding to their physical length, when excited
>> with
>> particular frequency?
>
> Yes. It works fine for length. It does NOT work for loading inductors,
> it does not work for short antennas which have anything form a uniform
> distribution to triangular distribution, or any mix between including
> curves of various slopes.
>
Why not? What happens to cosine current distribution curve when we insert the loading element (inductance, coil, loading stub, resistance) in the radiator? What formula applies to get the uniform or triangular distribution? Can you show some mathematics?
So we have resonant standing wave element, that has current max at the feedpoint and zero at the tip, which gives us 90 degree (or 180 with dipole) or quarter wave distribution from the base to the tip. (reality) We can express the straight pieces of radiator in degrees, but not the coiled up piece that the wave has to go through?
The "uniform" and "triangular" distribution was used for approximation or simplification of showing the current distribution in short loaded radiators, while they are in reality segments of the cosine curve belonging to length of the straight portions of the radiator. EZNEC shows that, when you magnify the curve you can see there are no uniforms or triangles but a cosine curve.

> A 30 degree tall antenna with base loading simply has power factor
> correction at the base, provided the inductor is not a significant
> fraction of a wavelength long. It is a 30 degree base loaded radiator,
> not a 90 degree antenna. And the inductor is not 60 degrees long.
>
We are not talking here about base loaded radiator. No detours please.
So how many electrical degrees has the quarter wave resonant radiator that
is loaded with loading coil (or stub) about 2/3 way up and is say 30 deg.
physical "length" to make it resonant?

> 73 Tom
>

73 Yuri, K3BU

172. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 03:24:05 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <rz0Yf.61$yZ6.22@fe12.lga>
Source record: 61813

"Richard Clark" <kb7qhc@comcast.net> wrote
> If it doesn't count for much,
> or it has no relevancy, then say so and by all means drop it.

I think it is significant, not as much in "crummy" mobile vertical, as in antenna systems with loaded, shortened elements.
I saw significant improvement in performance when replacing loading stubs in say KLM 3 el. 80m Yagi with coils. Performance and pattern improved significantly.
If you stick wrong values in modeling program, the error will get only magnified.
That's why this "bothers" me.
I trust what W9UCW measured, and I want to do it myself, just to put the heated subject to rest with proper conclusions.

Yuri

173. Re: RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 03:31:06 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <qgh6g3-alh.ln1@p400bob.personal.cox.net>
Source record: 61814

Not if you are in the business of spying! <grin> It takes a machine that can penetrate or couple to the fiber without damaging its throughput (much). I mean given that fiber splicing uses a pretty expensive machine itself I doubt am eavesdropping device would be much harder to manufacture... Your next big expense is to sort through the reams of data that pass through the link!

Do you see it as being viable for amateur radio hobbyists or was your post for general technical interest only? Perhaps I am missing some possibilities here..

Cheers Bob

Marco Licetti wrote:
> OK. Just one comment: intercepting fiberoptics is more complicated/costly
> than metal "wires"
>
>

174. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 04:06:37 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144037197.028238.241940@u72g2000cwu.googlegroups.com>
Source record: 61815

Cec wrote, "How does one amp at the top and zero amps at the bottom
grab you?
Please see my other postings."

It grabs me that what you wrote in your other postings about
capacitance to the outside world, " I didn't say there was no
capacitance to the outside world. I said
such is a secondary effect, not a primary effect, and for the sake
of the present argument, can be ignored as secondary effects often
are ignored," is all wet. And I still say that your other postings
before that were saying you believed that there was NO capacitance to
the outside world. It was the message they sent to me, loud and clear.

Given any volume, say a volume containing a Texas Bugcatcher coil and
the air inside and immediately around it, if you push more electrons in
than come out _for_ANY_abritrarily_short_time_period_, you have changed
the net charge in that volume; if you pull out more electrons than go
in, you have changed the net charge in that volume. If the current at
the top and bottom, the only two conductors crossing the boundary of
that volume, is different, that represents flow of charge into (and out
of, in a cyclic fashion) that volume. I don't know what to call that
except capacitance to the outside world. Yes, it's _distributed_
capacitance. But the key point is that it is THE reason--the WHOLE
reason--for the difference in current between the top and the bottom,
NOT a "secondary effect."

In fact, when YOU say that the coil "behaves differently" in different
external environments, you are AFFIRMING it as an important effect, for
surely the presence or absence of some American gas guzzler (or is it
Diesel guzzler?) strongly affects the capacitance to the outside world,
and does not significantly affect internal capacitances (which in any
event, being contained entirely within that volume, do NOTHING for
storing net charge within the volume, because for those internal
capacitances to store charge, what goes in one end comes immediately
out the other end which is still inside the same volume and thus there
is not any net change in charge within the volume). But the "other
end" of capacitance to the gas guzzler or whatever is OUTSIDE the
volume of the coil, thus EXACTLY accounting for the difference in
current at the two leads going to the coil. -- I suppose they covered
all that in a sophomore EE circuits class, but I wouldn't know. I
suppose they also might have covered how a pure lumped model using only
i(t)=C*dv(t)/dt and v(t)=L*di(t)/dt, with no time delay elements, can
mimic lossless transmission line behaviour to any arbitrary degree of
accuracy you want, but perhaps they don't try to hit you with that
concept till later. I wouldn't know that, either...I just know it's

true.

I suppose it's a bit too much to ask all at once, but I do wish you could see that just because the specific value of the capacitance is different in different environments, it does not mean that I need a different model. The coil does not behave in some fundamentally different way. I only need to adjust the value of that capacitance within the model--or if you will, the parameters of the transmission-line-like behaviour, though other models may work as well in practical antenna analysis. The model stays the same; the parameters in the model change. When I change the value of a resistor, my model of a resistor doesn't change. It's still fundamentally v(t)=R*i(t). Only the value used for R changes. On a grander scale, when I include the parasitic effects of a real inductOR, I have more things to account for in the model than just inductANCE. Some of them are affected significantly by the environment in which I place the inductor. And even small changes in the values can have a profound effect on the overall system behaviour. That's especially true in a system operated near resonance where the Q is extremely high, such as a system in which there is only a standing wave.

My only wish is that these musings will be useful to the lurkers trying to actually learn something, if there still happen to be any around.

Cheers,
Tom

175. Re: The Seven Warning Signs of Bogus Science

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 04:12:10 UTC
From: cliff wright <c.c.wright@paradise.net.nz>
Message-ID: <4430a096@clear.net.nz>
Source record: 61816

Irv Finkleman wrote:
> I thought this article might be of interest in that we often see
> claims about certain types of antennas which fall into the
> category.
>
> From
> http://chronicle.com/free/v49/i21/21b02001.htm
>
> POINT OF VIEW
> The Seven Warning Signs of Bogus Science
> By ROBERT L. PARK
>
> The National Aeronautics and Space Administration is investing close to
> a million dollars in an obscure Russian scientist's antigravity
> machine, although it has failed every test and would violate the most
> fundamental laws of nature. The Patent and Trademark Office recently
> issued Patent 6,362,718 for a physically impossible motionless
> electromagnetic generator, which is supposed to snatch free energy from
> a vacuum. And major power companies have sunk tens of millions of
> dollars into a scheme to produce energy by putting hydrogen atoms into
> a state below their ground state, a feat equivalent to mounting an
> expedition to explore the region south of the South Pole.
>
> There is, alas, no scientific claim so preposterous that a scientist
> cannot be found to vouch for it. And many such claims end up in a court
> of law after they have cost some gullible person or corporation a lot
> of money. How are juries to evaluate them?
>
> Before 1993, court cases that hinged on the validity of scientific
> claims were usually decided simply by which expert witness the jury
> found more credible. Expert testimony often consisted of tortured
> theoretical speculation with little or no supporting evidence. Jurors
> were bamboozled by technical gibberish they could not hope to follow,
> delivered by experts whose credentials they could not evaluate.
>
> In 1993, however, with the Supreme Court's landmark decision in Daubert
> v. Merrell Dow Pharmaceuticals, Inc. the situation began to change. The
> case involved Bendectin, the only morning-sickness medication ever
> approved by the Food and Drug Administration. It had been used by
> millions of women, and more than 30 published studies had found no
> evidence that it caused birth defects. Yet eight so-called experts were
> willing to testify, in exchange for a fee from the Daubert family, that
> Bendectin might indeed cause birth defects.
>

> In ruling that such testimony was not credible because of lack of
> supporting evidence, the court instructed federal judges to serve as
> "gatekeepers," screening juries from testimony based on scientific
> nonsense. Recognizing that judges are not scientists, the court invited
> judges to experiment with ways to fulfill their gatekeeper
> responsibility.
>
> Justice Stephen G. Breyer encouraged trial judges to appoint
> independent experts to help them. He noted that courts can turn to
> scientific organizations, like the National Academy of Sciences and the
> American Association for the Advancement of Science, to identify
> neutral experts who could preview questionable scientific testimony and
> advise a judge on whether a jury should be exposed to it. Judges are
> still concerned about meeting their responsibilities under the Daubert
> decision, and a group of them asked me how to recognize questionable
> scientific claims. What are the warning signs?
>
> I have identified seven indicators that a scientific claim lies well
> outside the bounds of rational scientific discourse. Of course, they
> are only warning signs -- even a claim with several of the signs could
> be legitimate.
>
> 1. The discoverer pitches the claim directly to the media. The
> integrity of science rests on the willingness of scientists to expose
> new ideas and findings to the scrutiny of other scientists. Thus,
> scientists expect their colleagues to reveal new findings to them
> initially. An attempt to bypass peer review by taking a new result
> directly to the media, and thence to the public, suggests that the work
> is unlikely to stand up to close examination by other scientists.
>
> One notorious example is the claim made in 1989 by two chemists from
> the University of Utah, B. Stanley Pons and Martin Fleischmann, that
> they had discovered cold fusion -- a way to produce nuclear fusion
> without expensive equipment. Scientists did not learn of the claim
> until they read reports of a news conference. Moreover, the
> announcement dealt largely with the economic potential of the discovery
> and was devoid of the sort of details that might have enabled other
> scientists to judge the strength of the claim or to repeat the
> experiment. (Ian Wilmut's announcement that he had successfully cloned
> a sheep was just as public as Pons and Fleischmann's claim, but in the
> case of cloning, abundant scientific details allowed scientists to
> judge the work's validity.)
>
> Some scientific claims avoid even the scrutiny of reporters by
> appearing in paid commercial advertisements. A health-food company
> marketed a dietary supplement called Vitamin O in full-page newspaper
> ads. Vitamin O turned out to be ordinary saltwater.
>
> 2. The discoverer says that a powerful establishment is trying to
> suppress his or her work. The idea is that the establishment will

> presumably stop at nothing to suppress discoveries that might shift the
> balance of wealth and power in society. Often, the discoverer describes
> mainstream science as part of a larger conspiracy that includes
> industry and government. Claims that the oil companies are frustrating
> the invention of an automobile that runs on water, for instance, are a
> sure sign that the idea of such a car is baloney. In the case of cold
> fusion, Pons and Fleischmann blamed their cold reception on physicists
> who were protecting their own research in hot fusion.
>
> 3. The scientific effect involved is always at the very limit of
> detection. Alas, there is never a clear photograph of a flying saucer,
> or the Loch Ness monster. All scientific measurements must contend with
> some level of background noise or statistical fluctuation. But if the
> signal-to-noise ratio cannot be improved, even in principle, the effect
> is probably not real and the work is not science.
>
> Thousands of published papers in para-psychology, for example, claim to
> report verified instances of telepathy, psychokinesis, or precognition.
> But those effects show up only in tortured analyses of statistics. The
> researchers can find no way to boost the signal, which suggests that it
> isn't really there.
>
> 4. Evidence for a discovery is anecdotal. If modern science has learned
> anything in the past century, it is to distrust anecdotal evidence.
> Because anecdotes have a very strong emotional impact, they serve to
> keep superstitious beliefs alive in an age of science. The most
> important discovery of modern medicine is not vaccines or antibiotics,
> it is the randomized double-blind test, by means of which we know what
> works and what doesn't. Contrary to the saying, "data" is not the
> plural of "anecdote."
>
> 5. The discoverer says a belief is credible because it has endured for
> centuries. There is a persistent myth that hundreds or even thousands
> of years ago, long before anyone knew that blood circulates throughout
> the body, or that germs cause disease, our ancestors possessed
> miraculous remedies that modern science cannot understand. Much of what
> is termed "alternative medicine" is part of that myth.
>
> Ancient folk wisdom, rediscovered or repackaged, is unlikely to match
> the output of modern scientific laboratories.
>
> 6. The discoverer has worked in isolation. The image of a lone genius
> who struggles in secrecy in an attic laboratory and ends up making a
> revolutionary breakthrough is a staple of Hollywood's science-fiction
> films, but it is hard to find examples in real life. Scientific
> breakthroughs nowadays are almost always syntheses of the work of many
> scientists.
>
> 7. The discoverer must propose new laws of nature to explain an
> observation. A new law of nature, invoked to explain some extraordinary

> result, must not conflict with what is already known. If we must change
> existing laws of nature or propose new laws to account for an
> observation, it is almost certainly wrong.
>
> I began this list of warning signs to help federal judges detect
> scientific nonsense. But as I finished the list, I realized that in our
> increasingly technological society, spotting voodoo science is a skill
> that every citizen should develop.
>
> Robert L. Park is a professor of physics at the University of Maryland
> at College Park and the director of public information for the American
> Physical Society. He is the author of Voodoo Science: The Road From
> Foolishness to Fraud (Oxford University Press, 2002).
>
> http://chronicle.com
> Section: The Chronicle Review
> Volume 49, Issue 21, Page B20

Some good points there Irv!
7. Is very interesting though. I'm an amateur astronomer as well as a ham
and I'm frequently amused, or saddened, by some of the extreme efforts
to "save" the "Big Bang" theory.
One recent one had negative mass matter, a cosmic repulsion force which
has never been observed and cold dark invisible matter all brought in.
Of course there are WIMPS MACHOS and a period of inflation at many times
the speed of light involved too.
To me that makes the "Big Bang" a very suspect theory!!

And that IS the position of many of the "establishment" cosmologists!
These problems are not just on the science "fringe" unfortunately.
A couple of brave souls recently proposed the simple expedient of very
slighty modifing the inverse square law of gravity at vast distances.
It seems to explain many problems of current theories, but it was
"jumped on" from a great height by scientists who don't ever seem to
have heard of Occam's razor.

Regards Cliff wright.

BTW I have a bet with several of my old colleagues at Auckland
university that LIGO won't detect any "gravitational waves"
So far it has been about 3 years and I haven't had to pay out.

176. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 04:14:33 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <nGbYf.32690$Q8.1773@bignews4.bellsouth.net>
Source record: 61693

"Frank's" <frank599@nospam.telus.net> wrote in message
news:2yUXf.18997$B_1.11490@edtnps89...
>> Recently heard about EH antennas and have done some research into them
>> including reading some articles in this newsgroup. It is begining ti
>> sound very much like my friends homemade FM/TV antenna. My friend being
>> short on money fastened an old bicycle rim to a piece of galvanized
>> pipe(axel stuck in the pipe) Feedline was connected from the center o
>> the wheel to a point on the outer rim. I had repeated told my friend
>> that something like this would never work and he demonstrated to me
>> that it did.. I theink the EH antenna is a lot like this old wheel,
>> just about anything placed on a mast with work to some degree. In this
>> case a very poor antenna allowed my friend to receive 2 TV stations and
>> 4 or 5 FM radio stations. This was a vast improvement over the 0 tv and
>> Fm stations he was receving before putting up his "antenna" Would it be
>> appropriate to say that an EH antenna is more like a coupler that
>> utilises the antenna support structure(tower/mast) and feedline as the
>> radiating elements of the antenna?.
>
> I think the EH is the same idea as the CFA; in which case the following
> paper
> says it all: http://www.fi.uba.ar/materias/6654/download/CFAantenna.pdf.
>
> It is hard to imagine going to these lengths to debunk nonsense, but I
> guess
> it is the only way.
>
> Frank
>
I have to admit that at one time I too thought a viable antenna could me
made from lumped values of inductance and capacitance. I was about 12 or 13
at the time. I am also thinking my analogy with the bicycle rim antenna may
not be so far off. LOL

177. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 04:43:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <li9132td7qp8bsgft3bs08vfcbgbn1tqap@4ax.com>
Source record: 61817

On Sun, 2 Apr 2006 23:24:05 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>If you stick wrong values in modeling program, the error will get only
>magnified.
>That's why this "bothers" me.

Hi Yuri,

This is a most ambiguous "bothering" in that you haven't put any
quantification to what the "error" leads to. No one can possibly
expect perfection, and ï¿½20% is possibly the best accuracy most hams
can expect in measurement. We have all already identified that the
"error" stemmed from an inappropriate application of lumped inductance
in the place of a helix in modeling.

This begs the question: "What's all the fuss over? What's to be
proven? and How do we know when it has BEEN proven?"

73's
Richard Clark, KB7QHC

178. Re: RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 06:01:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gbe132tid12p7nb3pandj6pnfub2f32kdr@4ax.com>
Source record: 61819

On Sun, 02 Apr 2006 22:31:06 -0500, Bob Bob <bob3bob3@cox.net> wrote:

>It takes a machine that
>can penetrate or couple to the fiber without damaging its throughput
>(much).

Hi Bob,

Having done it often, I can say it is far, far simpler than that. It
is obtained through the evanescent mode and optical couplers just like
RF couplers work on the exactly the same principle. You simply abrade
the surfaces of two conjoined lengths of fiber optic; mate them like
snakes along their length; and wah-lah as the French would say.

73's
Richard Clark, KB7QHC

179. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 06:09:17 UTC
From: richardharrison@webtv.net
Message-ID: <3357-4430BC0D-178@storefull-3258.bay.webtv.net>
Source record: 61820

Tom, K7ITM wrote:
"Given any volume, say a volume containing a Texas Bugcatcher coil and the air inside and immediately around it, if you push more electrons in than come out_for_ANY_arbitrarily_short_time_period_, you have changed the net charge in that volume;---."

No. This is not charging a capacitor or a battery. Energy stored in an antenna system is in constant motion. Power delivered by the transmitter is neadly the same as that used by the load, (the antenna), plus that consumed by losses.

Power is simply the in-phase volts times amps. It can have any impedance which is the ratio of in-phase volts to amps. Z in the general case can include reactance plus resistance and can give the apparent power. It is the ratio of volts to amps without regard to phase.

The coil which has a great difference between the current at its ends most likely simply has different impedances at its ends. The power is nearly the same at both ends of the coil but the voltage to current ratios are different.

Varying impredance along the RF path is a product of the interference between the incident and reflected waves. A standing-wave antenna typically has an open-circuit at its end or ends. The RF has no other option but to be returned
toward the sender and make standing waves. The large number of possible incident and reflected wave combinatioms makes it very likely that the current at opposite ends of a coil inserted in the antenna system will be unequal.

It`s the power in and out of a coil in an antenna system that`s likely to be nearly equal at both ends.

Best regards, Richard Harrison, KB5WZI

180. Re: RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 06:16:59 UTC
From: Bob <warthog9@pacbell.net>
Message-ID: <v53Yf.61693$H71.29022@newssvr13.news.prodigy.com>
Source record: 61821

I fiber many channels of RF in the course of my job and found Miteq a
bit over rated and extra pricey. Iï¿½ll stick with ORTEL for reliable
RF/Fiber links.
Bob

Marco Licetti wrote:
> I am not here to pester about own company - I do NOT work for this but just
> to share experience:
> For antenna remoting, etc RF-over-fiberoptic we found www.miteq.com is the
> best, somehwhat EXPENSIVE but tech specs are best in the world (noise, gain
> flatness, etc). As you know fiberoptic is the ONLY solution for LOSSLESS &
> SAFE transmitting RF over a long distance e.g. from antennas, on
> ship/aircraft, etc because first unlike Coax cable fiber doesn't suffer from
> excessive loss (you can have a 10-kilometer link no problem!), second it's
> hard to intercept (if you break fiber it iwll be notices, while Coax cable
> can be tapped in illegally), third it's immensely interference-immune, etc,
> etc. though mor eexpensive.
>
> That we found perfcect for Antenna remoting when facilities cannot be built
> near each antenna (antenna array), also for spying/military application
> fiber is safer than coax cble, and finally on aircrafts, etc you would
> prefer fiberoptic due to its immunity to interference (life-safety issues).
> So www.miteq.com I found by clicking on "components & assemblies" (NOT
> satellite comm)-->the clicked "fiberoptic products", they even posted
> datasheets and brochures there (maybe too much info!)
>
>
>

181. Re: how to reduce ghost from a wall mounted uhf antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 06:23:00 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <7b3Yf.1925$I%6.385@fed1read12>
Source record: 61822

<beerismygas@yahoo.com> wrote in message
news:1143969836.641578.171360@g10g2000cwb.googlegroups.com...
> i have a uhf tv antenna on my balcony. i am getting ghosting.
>
> i think the ghosting is from signals bouncing off the balcony wall and
> hitting the antenna a second time.
>
> apart from building a 100' tower to raise my antenna into the open sky,
> is there any way to keep the wall from reflecting ? can i put some sort
> of foil behind the antenna to block it out ?or cover the wall with some
> non reflective material?
>
> thx
>

Try a twin-bowtie antenna with a screen behind it. (They're intended for
indoor use, so the weather outside may eat it up.)

Any complex antenna -- something beyond a loop or bow-tie antenna -- will
discriminate against ghosts. Depending on where the transmitter is, all
your
signals may be ghosts. That is, you're receiving all your signals by
reflections
off SOMETHING and you need to pick the cleanest one, as another poster said.
This sort of "picking" is best attempted with a big, fancy UHF antenna..

Good luck.

182. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 06:56:55 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <fSTQIzC3cMMEFA4T@ifwtech.co.uk>
Source record: 61823

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> I don't intend to - that quotation is perfectly correct. It means
>>that in a test-case situation where the lumped model *does* apply,
>>the distributed model will give EXACTLY the same results.
>
>Ian, you know nothing is "EXACTLY" the same. All you can say is that
>the two models give acceptably similar results within a certain range
>of accuracy.

NO!

Reality is not on trial here. We are examining your model which is attempting to describe reality. In a test case where the loading is DEFINED to be lumped inductance only, agreement with the lumped-circuit model must be mathematically EXACT.

If one model is a true subset of the other, then as we come closer and closer to the idealized test case, all the extra terms in the bigger model will tend to zero leaving only the subset model. In the limit, the agreement is indeed exact.

(For example, to take up your earlier mis-statement, circuit theory for DC is a true subset of circuit theory for AC/RF. Set "w" (omega) to zero and you're left with only the DC relationships. But there is no discontinuity - as w gets smaller and smaller there is no sudden jump to a whole new theory. When w is exactly zero, we expect exact mathematical agreement with DC theory... and of course we get it.)

We do not expect any real-life loading coil to behave exactly like a lumped inductance, so we cannot physically construct a perfect test case. But we can envisage a perfect test case in order to test the model; and for that, we are entitled to demand exact results.

I'm sorry, but all this is Scientific Method 101. Most people don't need to understand this stuff in detail; though if they do, most people can also appreciate the compelling logic of it.

You have put yourself in a position where you do need to understand scientific logic in some detail, and follow the rules that logic lays down... but you don't.

>> This is the test case that I'm trying to make you apply, to check
>>that with a lumped-inductance load, your antenna theory predicts the
>>correct behaviour, namely no phase shift in the current through a
>>lumped inductance.
>

>:-) That's like proving there's no loss in a lossless transmission
>line, Ian. Please send me a 100 uH lumped inductance and I will
>run some tests on it and report back to you. What do you want to
>bet the lumped circuit model will be wrong?
>
>Some people have a problem with their model trying to dictate reality.
>You seem to have fallen into that trap. Allow me to raise my voice.
>
>THERE IS NO SUCH THING IN REALITY AS A LUMPED INDUCTANCE!!!!
>

No, of course there isn't. It is either an approximation or - as in this case - a simplified situation that we can use to check whether theories make sense.

Remember, it is your theory that we're trying to test. The challenge is for you to show that your particular application of the distributed circuit model works correctly.

In a test case where the loading coil comes closer and closer to behaving like a lumped circuit, your model must do the same as all successful distributed models do. All the complications must drop away, giving closer and closer agreement to the behaviour of an antenna loaded by pure inductance only. In the limit where the loading is pure lumped inductance, the agreement must be mathematically EXACT.

I am sure this can be done using a standing wave analysis for a coil-loaded antenna. I am equally sure that you have not achieved that.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

183. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 07:03:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0hf13258667d7d0m648bf6rbgm6ecrj2sl@4ax.com>
Source record: 61824

On Sun, 2 Apr 2006 22:54:10 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>> They might say "60 degree top loaded resonant radiator" but they don't
>> say "60 degree tall radiator 90 degree resonant".
>>
>If you stick the coil at the base in series with radiator and bring it to
>resonance (zero reactance at the frequency of interest) what "degree
>resonant" will than radiator become, if not 90? ("Measured" from the feed
>point, through the coil and then straight radiator.)

Hi Yuri,

This must be a convention that is particular to only a very few Hams.
The FCC database describes AM antennas in both electrical and physical
height as follows.

WGOP 80.00ï¿½ tall 125.2 meters tall 540 kHz
WWCS 63.50ï¿½ tall 98.8 meters tall 540 kHz
WFTD 79.00ï¿½ tall 64.0 meters tall 1080 kHz
KYMN 118.60ï¿½ tall 92.3 meters tall 1080 kHz
WWLV 90.00ï¿½ tall 47.2 meters tall 1620 kHz
WTAW 204.00ï¿½ tall 106.7 meters tall 1620 kHz

There may be some discrepancy, but it certainly looks like antenna
specification is by the electrical equivalent of the physical height
(and whatever l/d fudging) and with only one happening to be 90ï¿½.

Further, given most references (for professionals) is aimed at a
common specification that is largely driven by this agency, it would
seem odd to step out of this expectation to change to calling all
antennas 90ï¿½ simply because they resonate.

re:
http://www.fcc.gov/mb/audio/amq.html

73's
Richard Clark, KB7QHC

184. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 07:10:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c9i1329qb62v6d02amsb56pscav5m9v4q6@4ax.com>
Source record: 61825

On Sun, 2 Apr 2006 22:54:10 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>So how many electrical degrees has the quarter wave resonant radiator that
>is loaded with loading coil (or stub) about 2/3 way up and is say 30 deg.
>physical "length" to make it resonant?

Hi Yuri,

This is thin ice. If you are treading along the 1:1 replacement of
coil (wire-length/phase/Vf/whatever) for missing radiator length; then
Cecil is prepared to prove it to within ï¿½59% error.

We could call it Cecil's 1.59:0.41 replacement rule - guaranteed to
prove just about anything, and to whiten your teeth.

73's
Richard Clark, KB7QHC

185. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 08:01:42 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144051302.246237.78830@e56g2000cwe.googlegroups.com>
Source record: 61676

Richard H wrote,

"Tom, K7ITM wrote:

"Given any volume, say a volume containing a Texas Bugcatcher coil and the air inside and immediately around it, if you push more electrons in than come out_for_ANY_arbitrarily_short_time_period_, you have changed the net charge in that volume;---."

No. ..."

OK, I'm going to repeat it once more:

If you shove more electrons into ANY volume than you remove, you have changed the charge within that volume. I do NOT care WHAT is in that volume. Current is the rate that charge is flowing past a point on a conductor. If the only way I have of getting charge into and out of a particular volume is through two wires, then the difference in current at every instant in time represents the time rate of change of charge within that volume. That is true INDEPENDENT of whether it is in an antenna, and it is INDEPENDENT of what's inside that volume.

In fact, energy around an antenna is stored in electric and magnetic fields. These are inexorably linked to inductance along the conductors composing the antenna, and capacitance from these conductors to themselves and to any counterpoise or ground plane which may be part of the antenna--anything where electric field lines terminate. The charge per unit length along an antenna wire, be it resonant or not, be it a "standing wave" or a "travelling wave" antenna, varies with time. If it did not, then the current would necessarily be identical along the whole wire all the time.

This all gets back to very basic definitions of charge, and current as the rate of flow of charge. It's all consistent with Maxwell, Gauss, Faraday, etc. and with waves both standing and travelling, and with "impredances" and all the rest.

It's just amazing to me that some of you are fighting so hard against the very thing which has a chance of unifying your "wave" model with the realities of the electric and magnetic fields, and the associated capacitance and inductance along the antenna--indeed, along the wire itself, and not just along the coil.

Without capacitance, there can be NO difference in current anywhere along the wire, because there is simply no place to put the charge implied by differing currents at differing locations. With capacitance and inductance, everything works just as it's supposed to--just as it

DOES--and a properly developed wave theory will analyze it just fine,
if that's your cup of tea.

Cheers,
Tom

186. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 11:00:14 UTC
From: Mike Coombes <vk6mo@iinet.net.au>
Message-ID: <44310045$0$2110$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 61677

I don't understand what you are all on about, but, I side with K7ITM
"K7ITM" <k7itm@msn.com> wrote in message

Regards Mike.

news:1144051302.246237.78830@e56g2000cwe.googlegroups.com...
> Richard H wrote,
>
> "Tom, K7ITM wrote:
>
> "Given any volume, say a volume containing a Texas Bugcatcher coil and
> the air inside and immediately around it, if you push more electrons in
> than come out_for_ANY_arbitrarily_short_time_period_, you have changed
> the net charge in that volume;---."
>
> No. ..."
>
> OK, I'm going to repeat it once more:
>
> If you shove more electrons into ANY volume than you remove, you have
> changed the charge within that volume. I do NOT care WHAT is in that
> volume. Current is the rate that charge is flowing past a point on a
> conductor. If the only way I have of getting charge into and out of a
> particular volume is through two wires, then the difference in current
> at every instant in time represents the time rate of change of charge
> within that volume. That is true INDEPENDENT of whether it is in an
> antenna, and it is INDEPENDENT of what's inside that volume.
>
> In fact, energy around an antenna is stored in electric and magnetic
> fields. These are inexorably linked to inductance along the conductors
> composing the antenna, and capacitance from these conductors to
> themselves and to any counterpoise or ground plane which may be part of
> the antenna--anything where electric field lines terminate. The charge
> per unit length along an antenna wire, be it resonant or not, be it a
> "standing wave" or a "travelling wave" antenna, varies with time. If
> it did not, then the current would necessarily be identical along the
> whole wire all the time.
>
> This all gets back to very basic definitions of charge, and current as
> the rate of flow of charge. It's all consistent with Maxwell, Gauss,
> Faraday, etc. and with waves both standing and travelling, and with
> "impredances" and all the rest.
>
> It's just amazing to me that some of you are fighting so hard against
> the very thing which has a chance of unifying your "wave" model with

> the realities of the electric and magnetic fields, and the associated
> capacitance and inductance along the antenna--indeed, along the wire
> itself, and not just along the coil.
>
> Without capacitance, there can be NO difference in current anywhere
> along the wire, because there is simply no place to put the charge
> implied by differing currents at differing locations. With capacitance
> and inductance, everything works just as it's supposed to--just as it
> DOES--and a properly developed wave theory will analyze it just fine,
> if that's your cup of tea.
>
> Cheers,
> Tom
>

187. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 11:13:54 UTC
From: w8ji@akorn.net
Message-ID: <1144062834.591149.121920@v46g2000cwv.googlegroups.com>
Source record: 61678

Yuri Blanarovich wrote:
> >
> So what is it then you claiming being equal.

In a loading coil with very small distributed capaciatnce to the outside world compared to termination impedance, current has to be equal. Phase shift in current at each end has to be nearly zero.

This is true for ANY antenna length or loading coil location.

This is what everyone was saying.

> No gang wars intended, just trying to underline that there are two major
> supporting "camps" claiming that the current has to be equal, or is
> appreciably different.

One group is saying the distributed capacitance of the inductor to the outside world controls the distribution, another group appears to be saying it is a function of electrical degrees the coil makes up.

I agree with the majority of people posting in these threads. It is the capacitance from the coil to the outside world that controls current distribution in the inductor and produces and phase difference in CURRENT at each end. If you look at Reg, Ian, Roy, all the Toms, Gene, Richard Clark, and on and on we are all saying that same thing.

Richard Harrison, Yuri, and Cecil seem to argue against that, but that is how ANY inductor behaves. It can be proven to behave the way most people are trying to explain.

The coil does NOT represent the "missing degrees". It does NOT have to have current taper (as a matter of fact a good indictor and antenna design won't show any significant current taper).

> > Right. Although the distributed capacitance can change the shape.
> >
> It can change the amplitude, but not the shape of the current distribution
> curve, that is the maximum is at the feed point (zero reactance - resonance)
> and zero at the tips and follows cosine function.

The current distribution in an antenna is primarily a function of displacement currents caused by capacitance to the outside world and series impedance. If I have a short small diameter whip of uniform cross section, it has triangular distribution.

If I sufficiently end-load the very same antenna with no change in length, the current distribution becomes close to uniform. The thinner the elenment and larger the end loading, the more uniform the current.

This is why radiation resistance is someplace around FOUR times greater
in an end-loaded antenna when compared to a base loaded antenna of the
same height. Radiation resistance is tied to ampere-feet, and
ampere-feet is larger with end loading rather than base loading.

> > What "good book"? It would help to see the context.
> >
> Say ARRL Antenna Book, 20th edition, page 16-7, Fig 10
> Shows lengths h1 and h2 expressed as 15 deg. eaach.

That does not say 90 degrees. It says 15 degrees.

> If you stick the coil at the base in series with radiator and bring it to
> resonance (zero reactance at the frequency of interest) what "degree
> resonant" will than radiator become, if not 90? ("Measured" from the feed
> point, through the coil and then straight radiator.)

It is resonant. It is 15 degrees tall.

It is NOT 90 degree resonant.

Degrees of height is a distance measurement, not an electrical
parameter. If someone is using it to describe resonance thay are
misusing the term.

I can have a 180 degree long resonant dipole.

I can have a 20 degree long resoannt dipole.

I cannot have a 180 degree resonant dipole that is 20 degrees long. I
cannot have a 15 degree tall vertical that is 180 degree resonant, or
90 degree resonant. That argues against itself.

> Well, is 180 degrees half wavelength or not?

Yes, 180 degrees is 1/2 wave.

>Is the current maximum at the
> feedpoint (center) and zero at the end, or not?

Yes.

>The current distribution is
> not the same, but is exhibiting properties of resonant half wave dipole with
> current max at the center and zero at the tips. The shape is not the smooth
> continuous cosine curve as in straight dipole, but affected by the loading
> coils (drops) in their place (subject of disagreement).

So what? The degrees are a measure of physical length. A 20 degree long
coil loaded dipole is a 20 degree long resonant dipole. It is not a 180
degree resonant antenna.

> >> Can we describe "pieces" or segments of the radiator as having
> >> proportional
> >> amount of degrees corresponding to their physical length, when excited
> >> with

> >> particular frequency?
> >
> > Yes. It works fine for length. It does NOT work for loading inductors,
> > it does not work for short antennas which have anything form a uniform
> > distribution to triangular distribution, or any mix between including
> > curves of various slopes.
> >
> Why not? What happens to cosine current distribution curve when we insert
> the loading element (inductance, coil, loading stub, resistance) in the
> radiator? What formula applies to get the uniform or triangular
> distribution? Can you show some mathematics?

This has all been explained over and over again. You can also see it in
any engineering book. ON4UN's book initially had it wrong, but it is
corrected now.

> So we have resonant standing wave element, that has current max at the
> feedpoint and zero at the tip, which gives us 90 degree (or 180 with dipole)
> or quarter wave distribution from the base to the tip. (reality)

No, it does not. 90 degrees when used with antennas is a measure of
distance as it relates to frequency. You can't have a 15 degree long
antenna that is "180 degree resonant", and the current distribution
depends on distributed capacitance and series impedance.

We can
> express the straight pieces of radiator in degrees, but not the coiled up
> piece that the wave has to go through?

Right. You cannot build a "60 degree coil to make my 30 degree antenna
90 degrees long".

Think about it. If the coil was 60 degrees long, you could move it
anywhere in the antenna and it would be resonant at the same frequency!

> The "uniform" and "triangular" distribution was used for approximation or
> simplification of showing the current distribution in short loaded
> radiators, while they are in reality segments of the cosine curve belonging
> to length of the straight portions of the radiator. EZNEC shows that, when
> you magnify the curve you can see there are no uniforms or triangles but a
> cosine curve.

Oh, we are picking nits now. In this case we have to get every
engineering book to say "it is such a small portion of a curve it looks
straight" instead of using triangular or uniform.

After all current might be 1.0001 amperes at one point and 1.0000
amperes ten feet away, so I guess that is actually not uniform if we
pick the nits enough.

The cosine shape is not true as a rule, however. That shape depends on
distributed capacitance being uniform.

> We are not talking here about base loaded radiator. No detours please.

If your theory does not cover base, center , and top loading it is incomplete, If it does not treat a coil as a coil no matter how it is used or set limits, it is incomplete.

Base loaded, center loaded. It doesn't matter.

> So how many electrical degrees has the quarter wave resonant radiator that
> is loaded with loading coil (or stub) about 2/3 way up and is say 30 deg.
> physical "length" to make it resonant?

That's already been explained. If it is 30 degrees tall, it is a resonant 30-degree tall radiator.

It is not a "90 degree resonant 30 degree tall radiator with a 60 degree coil".

73 Tom

188. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 12:15:17 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <44311110_2@newsfeed.slurp.net>
Source record: 61679

"Richard Clark" wrote
> This must be a convention that is particular to only a very few
> Hams. The FCC database describes AM antennas in both
> electrical and physical height as follows. .<>... it would seem
> odd to step out of this expectation to change to calling all
> antennas 90ï¿½ simply because they resonate.

The FCC data cited does not include the reduced velocity of propagation along the radiator -- which means that an FCC "90 degree" radiator is not resonant, it has some inductive reactance. A network is used at the radiator feedpoint to transform the complex impedance there to properly match the transmission line.

That "90 degree" radiator would need to be shortened by several percent in order to be self-resonant. Kraus (3rd Ed, p 182) shows a feedpoint Z of 73 + j42.5 ohms for a thin-wire, linear dipole that is a physical 1/2-wavelength, and that self-resonance occurs at a length a few percent shorter, when the radiation resistance drops to about 65 ohms.

An unloaded 1/4-wave MW broadcast monopole working against the typical broadcast radial ground system has about 1/2 the impedance that Kraus shows for a dipole in free space.

RF

189. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 13:30:23 UTC
From: w8ji@akorn.net
Message-ID: <1144071023.330898.214140@e56g2000cwe.googlegroups.com>
Source record: 61680

Mike Coombes wrote:
> I don't understand what you are all on about, but, I side with K7ITM
> "K7ITM" <k7itm@msn.com> wrote in message

Of course K7ITM has it right. So does Ian, Roy, and a dozen others.
The very first post in this thread had it right.

It seems most people understand it's all about distributed capacitance
and displacement current. Ian and ITM in particular have made some very
clear detailed postings.

73 Tom

190. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 13:35:16 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <rw9Yf.15$ma4.6@fe09.lga>
Source record: 61681

"Richard Clark" <kb7qhc@comcast.net> wrote > Hi Yuri,
>
> This is a most ambiguous "bothering" in that you haven't put any
> quantification to what the "error" leads to. No one can possibly
> expect perfection, and ±20% is possibly the best accuracy most hams
> can expect in measurement. We have all already identified that the
> "error" stemmed from an inappropriate application of lumped inductance
> in the place of a helix in modeling.
>
> This begs the question: "What's all the fuss over? What's to be
> proven? and How do we know when it has BEEN proven?"
>
> 73's
> Richard Clark, KB7QHC

I think we are striving to improve our accuracy and reflection of reality in modeling antennas.
We know that efficiency is proportional to the area under the current curve along the radiator. The "fatter" the curve, the better. This has been confirmed by the experimental measurements by varying position of the loading coil along the radiator and use of top hats.
If the modeling program starts with wrong assumption (as we have seen using lumped inductance) and one uses multiple elements, like in vertical arrays or Yagis, then the results get skewed and we get wrong "recipe" for the antenna design.
The biggest benefit would be in properly optimizing antenna design for the best rejection, F/B, cleanest pattern, which is more critical than just optimizing for max gain. Especially loaded arrays for low bands would benefit most.
One could get good indication by comparing say 3 el loaded Yagi design with lumped inductance vs. loading stubs or solenoid model.
Unfortunately, or fortunately, I am not retired, nor making living from the RF stuff and my time is limited to be working full time on this. My interest is to maximize the station and antenna design for contesting so I can try to cream some records.
So far, it looks to me that this exercise is worthwhile if we can improve the accuracy of modeling and our understanding of the phenomena.
Looks like lots of antennas would be damaged by the Midwest tornados, the ugly WX is heading our way.

73 Yuri, K3BU

191. Re: .pcb and .sch layout files help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 13:36:58 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <e0r8dt$1986$1@f04n12.cac.psu.edu>
Source record: 61682

He's right, but to answer your question, you most likely can't. It's my experience that even though these programs use the same extension, (sch,pcb) they are not in the same format. It's not like the extension .TXT which most anything can read these are propitiatory. If these were high end cad programs there might me translators available but not these lower level programs.

--
John Passaneau
Penn State University
Physics Dept.
jxp16@psu.edu
"K7ITM" <k7itm@msn.com> wrote in message
news:1143867483.327888.317680@i40g2000cwc.googlegroups.com...
> You'll probably have better luck posting in an electronics CAD group,
> or even an electronics design group. A bonus is that you won't get
> people here upset because you're posting something so far off an
> "antennas" topic.
>

192. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 14:04:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kX9Yf.63811$Jd.59040@newssvr25.news.prodigy.net>
Source record: 61683

Ian White GM3SEK wrote:
> Reality is not on trial here. We are examining your model which is
> attempting to describe reality. In a test case where the loading is
> DEFINED to be lumped inductance only, agreement with the lumped-circuit
> model must be mathematically EXACT.

The distributed network model *does agree EXACTLY* since the
forward current phasor and reflected current phasor add up to
the same magnitude and phase at both ends of the coil. The
forward current is the same magnitude and phase at both ends
of the coil and the reflected current is the same magnitude
and phase at both ends of the coil. So their sums are trivially
identical at both ends of the coil. Since I'm sure you know that
already, your posting seems to me to be a diversion. What you
say is true, but is already trivial common knowledge.

> If one model is a true subset of the other, then as we come closer and
> closer to the idealized test case, all the extra terms in the bigger
> model will tend to zero leaving only the subset model. In the limit, the
> agreement is indeed exact.

And the agreement is indeed exact. Both models agree up to the point
where the lumped-circuit model starts to fail.

> You have put yourself in a position where you do need to understand
> scientific logic in some detail, and follow the rules that logic lays
> down... but you don't.

Please don't engage in mind fornication. It is possible that you are
the one failing to follow the scientific method.
--
73, Cecil http://www.qsl.net/w5dxp

193. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 14:05:40 UTC
From: richardharrison@webtv.net
Message-ID: <11783-44312BB4-911@storefull-3254.bay.webtv.net>
Source record: 61684

Tom, K7ITM wrote:
"OK. I`m going to repeat it once more."

It is still irrelevant.

The question is:
Does an antenna have a different current at the two ends of an inserted coil?

Anyone interested in antennas should have access to Kraus, 3rd edition, "Antennas". On page 824 is Figure 23-21. Item (a) is a dipole with traps (only 2 terminals) for 2-frequency operation, 1st and 2nd resonances are the purpose of the traps. At F2, current outboard of the traps is practically zero.

At F1, the impedance of the traps still make impedance bumps but the current outboard of the trap ends, though substatially different from that inboard, is enough to allow the dipole to resonate.

At F1 and F2, current at both ends of the coils are substantially different. You probably would put them in a box with only 2 terminals. Pity the fool who argues with Kraus!

Best regards, Richard Harrison, KB5WZI

194. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 14:18:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <69aYf.63812$Jd.56966@newssvr25.news.prodigy.net>
Source record: 61685

w8ji@akorn.net wrote:
> In a loading coil with very small distributed capaciatnce to the
> outside world compared to termination impedance, current has to be
> equal. Phase shift in current at each end has to be nearly zero.

That is a false statement and is at the root of the misconceptions.
Standing wave current does not have to be equal. I have shown how
current at the bottom of the coil can be zero while the current
at the top of the coil is one amp. Do you think the coil is sucking
that one amp sideways from somewhere else through its distributed
capacitance? There's no magic involved, just simple, easy to
understand, distributed network theory. The current at the top
and bottom of a coil depends upon where it is placed in the
standing wave environment. Standing wave current doesn't flow.
It is the underlying forward current and reflected current that
is doing the flowing. Such is obvious from the equations.

Hecht, in "Optics", has the best description of standing waves
that I have ever read. He says: "[Equation (7.30)] is the equation
for a STANDING or STATIONARY WAVE. Its profile does not move
through space. ... [Its phase] doesn't rotate at all, and the
resultant wave it represents doesn't progress through space -
it's a standing wave."

Translating into RF language. Func(kx)*Func(wt) is the equation
for a STANDING or STATIONARY WAVE, i.e. the standing wave is
stationary. Its magnitude does not move through the wire. Its
phase doesn't rotate at all, and the resultant standing wave
it represents doesn't progress through a wire or through a
coil - it's a standing wave.

Until everyone takes time to understand the nature of standing
waves, people will keep making the same tired mistake over and
over.
--
73, Cecil http://www.qsl.net/w5dxp

195. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 14:36:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <JpaYf.63814$Jd.10581@newssvr25.news.prodigy.net>
Source record: 61687

K7ITM wrote:
> And I still say that your other postings
> before that were saying you believed that there was NO capacitance to
> the outside world. It was the message they sent to me, loud and clear.

I may have said that a pure lumped inductance has no capacitance
to the outside world and that is true by definition. Perhaps that
is what you are remembering. Anyone would be crazy to assert that
a real world coil has no capacitance to the outside world. What I
said is that capacitance to the outside world is often a secondary
effect compared to the primary effect of superposing forward and
reflected currents.

> Given any volume, say a volume containing a Texas Bugcatcher coil and
> the air inside and immediately around it, if you push more electrons in
> than come out _for_ANY_abritrarily_short_time_period_, you have changed
> the net charge in that volume; if you pull out more electrons than go
> in, you have changed the net charge in that volume.

But that is not happening. Standing wave current doesn't flow. It just
stands there. How many times do I have to repeat the following.

Assume the forward current is one amp and the reflected current is one
amp. The standing wave current is the phasor sum of those two currents.

One amp of forward current is flowing into the coil and one amp of
forward current is flowing out of the coil. There is ZERO net storage
of charge associated with the forward current.

One amp of reflected current is flowing into the coil and one amp
of reflected current is flowing out of the coil. There is ZERO net
storage of charge associated with the reflected current.

Since these two currents are the only currents, there is ZERO net
storage of charge in the coil. The magnitude of the standing wave
current is irrelevant.

The forward current at the bottom of the coil is one amp at zero deg.
The reflected current at the bottom of the coil is one amp at 180 deg.
Their phasor sum, the standing wave current, is zero.

The forward current at the top of the coil is 0.5 amp at -90 deg.
The reflected current at the top of the coil is 0.5 amp at -90 deg.
Their phasor sum, the standing wave current, is 1.0 amp at -90 deg.

There's no net storage of charge in the coil, zero amps at the
bottom of the coil, and one amp at the top. That proves that standing

wave current doesn't flow, exactly as its equation says it doesn't flow, exactly as Hecht, in "Optics", says a standing wave "doesn't move through space".

The rest of your posting is irrelevant since it just repeats the same old misconception that standing wave current flows.
--
73, Cecil http://www.qsl.net/w5dxp

196. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 14:36:45 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <5qaYf.6$qO.0@fe10.lga>
Source record: 61686

"Richard Clark" <kb7qhc@comcast.net> wrote > Hi Yuri,
>
> This must be a convention that is particular to only a very few Hams.
> The FCC database describes AM antennas in both electrical and physical
> height as follows.
>
> WGOP 80.00° tall 125.2 meters tall 540 kHz
> WWCS 63.50° tall 98.8 meters tall 540 kHz
> WFTD 79.00° tall 64.0 meters tall 1080 kHz
> KYMN 118.60° tall 92.3 meters tall 1080 kHz
> WWLV 90.00° tall 47.2 meters tall 1620 kHz
> WTAW 204.00° tall 106.7 meters tall 1620 kHz
>
> There may be some discrepancy, but it certainly looks like antenna
> specification is by the electrical equivalent of the physical height
> (and whatever l/d fudging) and with only one happening to be 90°.
>
> Further, given most references (for professionals) is aimed at a
> common specification that is largely driven by this agency, it would
> seem odd to step out of this expectation to change to calling all
> antennas 90° simply because they resonate.
>
> re:
> http://www.fcc.gov/mb/audio/amq.html
>
> 73's
> Richard Clark, KB7QHC

That's fine, no argument there. But do you agree that there are towers of X height in meters and when "naked" having Y electrical degrees, loaded with top hat of size S, not changing the physical height, but adding Z degrees. So the top hat adds some degrees to the tower.
Is it such ham radio crime to say that coil can do that too, if it is inserted within the radiator?
We use imaginary lumped inductor to understand coils better, but we can not use electrical degrees to 'splain the behavior of coiled antenna wire?
I think we are progressing into antenna modeling and design and I see nothing wrong with using degrees to describe electrical properties (resonance) of the loaded radiator.

73 Yuri, K3BU

actually
WWLV 90.00° tall 47.2 meters tall 1620 kHz

should show closer to 92 deg. and assuming that they use fatter tower, even more.

197. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 14:41:49 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <QuaYf.8$qO.0@fe10.lga>
Source record: 61688

"Richard Harrison" <richardharrison@webtv.net> wrote

> At F1 and F2, current at both ends of the coils are substantially
> different. You probably would put them in a box with only 2 terminals.
> Pity the fool who argues with Kraus!
>
> Best regards, Richard Harrison, KB5WZI
>

yea, but, but, but..... (the "equal current choir" :-)

Thanks Richard!
Yuri, K3BU

198. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 14:44:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <oxaYf.63816$Jd.10540@newssvr25.news.prodigy.net>
Source record: 61689

Richard Harrison wrote:
> The coil which has a great difference between the current at its ends
> most likely simply has different impedances at its ends. The power is
> nearly the same at both ends of the coil but the voltage to current
> ratios are different.

Consider a 1/4WL open-circuit stub. The impedance at the open
is very high and the current is zero.

The impedance at the mouth of the stub is very low and the
current is at a maximum.

Exactly the same thing happens with a coil at the self-resonant
frequency.

The standing wave current at each end of a coil installed in
a standing wave antenna depends upon its position in the
antenna. To paraphrase Hecht, standing wave current "doesn't
progress through a wire - it's a standing wave."
--
73, Cecil http://www.qsl.net/w5dxp

199. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 14:55:40 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <MHaYf.63818$Jd.22694@newssvr25.news.prodigy.net>
Source record: 61690

K7ITM wrote:
> If you shove more electrons into ANY volume than you remove, you have
> changed the charge within that volume.

That is true but having zero standing wave amps at one end
of a coil and one standing wave amp at the other end doesn't
mean the charge is changing.

If the forward current is the same magnitude at both ends
of the coil, there's no change in charge.

If the reflected current is the same magnitude at both
ends of the coil there's no change in charge.

The standing wave current is the sum of those two phasors.
That sum is what is fooling you. Please pay attention to
Hecht, in "Optics".

The standing wave current profile does not move through
the wire just as the standing wave light profile does
not move through space.

Standing wave current doesn't progress through a wire just
as standing wave light doesn't progress through space.
--
73, Cecil http://www.qsl.net/w5dxp

200. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 14:59:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <LLaYf.63819$Jd.33331@newssvr25.news.prodigy.net>
Source record: 61691

Mike Coombes wrote:
> I don't understand what you are all on about, but, I side with K7ITM
> "K7ITM" <k7itm@msn.com> wrote in message
> Regards Mike.

1. If the magnitude of the forward current is the same at
both ends of the coil, there is no net storage of charge.

2. If the magnitude of the reflected current is the same at
both ends of the coil, there is no net storage of charge.

These conditions satisfies K7ITM's requirements. But he
is being fooled by the sum of the two above currents
which is meaningless to net charge storage.

Statements 1 and 2, above, already prove there is no net
storage of charge. Looking at the standing wave current
is meaningless after that technical fact.
--
73, Cecil http://www.qsl.net/w5dxp

201. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 16:01:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <4-ydnU1Kp4-l2qzZRVnyrg@bt.com>
Source record: 61692

To all and sundry.

You can't locate a loading coil at the top of a short antenna because it requires infinite inductance.

Before it gets to the top it resonates with its self-capacitance, becomes a parallel tuned circuit, and isolates itself from the antenna. The antenna then reverts to an unloaded rod.

The 'mechanism' is modelled in program LOADCOIL, which alows the loading coil to slide up and down the antenna to find maximum radiating efficiency.

There is enough information available to further calculate the angles of the bottom section, the coil. and the top section if you are prepared to find the time and think about it. But I can assure you angles take no part in the internal calculations of the program except perhaps in calculating efficiency. They are just a distraction.

Just enter diameter of bottom section, length and diameter of the coil, and diameter of the top section and slide the coil up and down to see what happens with constant overall height at a given frequency. As a free gift you also get the number of turns on the coil. Its been some time since I used the program myself. It might even tell you the wire gauge.

Download program LOADCOIL in a few seconds from website below and run immediately.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

202. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 16:26:25 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144081585.216717.291770@i39g2000cwa.googlegroups.com>
Source record: 61694

Hi there, Cec,

You wrote,
"If the forward current is the same magnitude at both ends
of the coil, there's no change in charge.

If the reflected current is the same magnitude at both
ends of the coil there's no change in charge."

Dunno why you keep reverting back to magnitudes, but I'm talking about current as a function of time, and have been consistently through this whole thing. Until you get that straight, there's no point in your even taking part in this. "Cyclical variation in charge (contained within a volume)" means that on average the charge stays constant, but it does not mean that it's constant over some arbitratily short but finite length of time.

Without the capacitance, without the ability to store charge, a transmission line, an antenna wire, a loading coil, all of them--would not have the ability to cause delay. Freespace, without a non-zero permittivity (capacitance), would allow infinite speed of light. But all these things DO have capacitance, and they DO have speed-of-propagation at the speed of light or slower.

Cheers,
Tom

203. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 16:34:00 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Y7cYf.63850$Jd.58169@newssvr25.news.prodigy.net>
Source record: 61695

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Whatever. I'd still like to see his derivations.
>
>
> "Optics", by Hecht, 4th edition, page 289.
>
> The intensity of a light beam is associated with the E-field
> so Hecht's equations are in relation to the E-field.
>
> Speaking of the light standing wave: "The composite
> disturbance is then:
>
> E = Eo[sin(kt+wt) + sin(kt-wt)]
>
> Applying the indentity
>
> sin A + sin B = 2 sin 1/2(A+B)*cos 1/2(A-B)
>
> E(x,t) = 2*Eo*sin(kx)*cos(wt)"
>
> Hecht says the standing wave "profile does not move through
> space".
>
> I have said the RF standing wave current profile does not move
> through a wire.
>
> Hecht says the standing wave phasor "doesn't rotate at all,
> and the resultant wave it represents doesn't progress through
> space - it's a standing wave."
>
> I have said the same thing about the RF standing wave current
> phasor.
>
> Hecht says the standing wave transfers zero net energy. I have
> said the same thing about RF standing waves.

If it's a solution to the wave equation it's o.k., Cecil, but
Hecht is still not using the case where there is a phase difference
between the two waves. If it isn't in the original equation it
won't be in the final version since they're just two ways of
saying the same thing. That's fine because it's the wrong
equation anyway for what you want, which involves impedances

and length, which you probably don't want to deal with because
you're probably under the impression they're just virtual and
not real, and so not worthy of inclusion in your theory.
73,
Tom Donaly, KA6RUH

204. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 16:47:57 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <1IcYf.65823$dW3.37762@newssvr21.news.prodigy.com>
Source record: 61696

Cecil Moore wrote:

> Yuri Blanarovich wrote:
>
>> It has been shown epxerimentally and also by EZNEC when modeled
>> properly as solenoid or loading stub. Yea, the "other" zero size coils
>> don't show that, EZNEC confirms that.
>
>
> As a data point, the results of modeling a coil as a lumped
> inductor Vs a helical coil are NOT the same in EZNEC. EZNEC
> disagrees with itself.
>
> I am much more inclined to trust the helically modeled inductance
> than the lumped inductance.
>
> As Dr. Corum says: "Distributed theory encompasses lumped circuits
> and always applies." In other words, the Distrubuted network model
> is a superset of the lumped circuit model.

There is no "helically modeled inductance" in Corum's work. They specifically state that there is none. Instead, they use a substitute, which Reg does, too, and develop their theory from there. Has it ever occurred to you, Cecil, that just as lumped circuit analysis may not be appropriate for everything due to its underlying assumptions, that circuit theory may fail because you can't always reduce the electrical world to current, voltage and length? When are you going to consider field theory in your analysis, Cecil? It might come in handy in any attempt to understand something as complex as a three dimensional coil.
73,
Tom Donaly, KA6RUH

205. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 17:07:27 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <jDcYf.11331$tN3.3838@newssvr27.news.prodigy.net>
Source record: 61697

Cecil Moore wrote:

> w8ji@akorn.net wrote:
>
>> In a loading coil with very small distributed capaciatnce to the
>> outside world compared to termination impedance, current has to be
>> equal. Phase shift in current at each end has to be nearly zero.
>
>
> That is a false statement and is at the root of the misconceptions.
> Standing wave current does not have to be equal. I have shown how
> current at the bottom of the coil can be zero while the current
> at the top of the coil is one amp. Do you think the coil is sucking
> that one amp sideways from somewhere else through its distributed
> capacitance? There's no magic involved, just simple, easy to
> understand, distributed network theory. The current at the top
> and bottom of a coil depends upon where it is placed in the
> standing wave environment. Standing wave current doesn't flow.
> It is the underlying forward current and reflected current that
> is doing the flowing. Such is obvious from the equations.
>
> Hecht, in "Optics", has the best description of standing waves
> that I have ever read. He says: "[Equation (7.30)] is the equation
> for a STANDING or STATIONARY WAVE. Its profile does not move
> through space. ... [Its phase] doesn't rotate at all, and the
> resultant wave it represents doesn't progress through space -
> it's a standing wave."
>
> Translating into RF language. Func(kx)*Func(wt) is the equation
> for a STANDING or STATIONARY WAVE, i.e. the standing wave is
> stationary. Its magnitude does not move through the wire. Its
> phase doesn't rotate at all, and the resultant standing wave
> it represents doesn't progress through a wire or through a
> coil - it's a standing wave.
>
> Until everyone takes time to understand the nature of standing
> waves, people will keep making the same tired mistake over and
> over.

Hecht was talking about two opposing waves of the same phase and
amplitude interfering with each other. You can't guarantee, in a real
antenna,
that the two waves do have the same phase and magnitude.
73,
Tom Donaly, KA6RUH

206. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 17:12:30 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns979A67CCE196Adoldridgsprintca@64.59.135.159>
Source record: 61699

Cecil Moore <mycall@hotmail.com> wrote in news:WkEXf.50615$2O6.49474
@newssvr12.news.prodigy.com:

> ml wrote:
>> surprized that nobody mentioned the sgc tungers
>
> My SGC-230 will tune everything including no antenna
> at all. I once forgot to install the coil and stinger
> on my mobile antenna. The SGC-230 faithfully tuned the
> three foot bottom section to resonance on 75m. :-)

Yeah, my MFJ 993B does the same thing, but the coax losses will KILL your
signal!

--
Dave Oldridge+
ICQ 1800667

207. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 17:16:44 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <1fWdnQLbJqyMyqzZnZ2dnUVZ_smdnZ2d@adelphia.com>
Source record: 61698

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> In a loading coil with very small distributed capaciatnce to the
>> outside world compared to termination impedance, current has to be
>> equal. Phase shift in current at each end has to be nearly zero.
>
>
> That is a false statement and is at the root of the misconceptions.
> Standing wave current does not have to be equal.

I assume you are meaning that the RMS current at one physical point
must not equal the RMS current at some other point.

> I have shown how
> current at the bottom of the coil can be zero while the current
> at the top of the coil is one amp. Do you think the coil is sucking
> that one amp sideways from somewhere else through its distributed
> capacitance?
(snip)

Of course that is what is happening. It is what happens in any
transmission line like device. There is a standing voltage wave,
also, and that produces displacement current through any capacitance,
just as the antenna does.

Aren't you claiming that the coil has transmission line like
properties, in that it takes time for a wave to pass through it?

Any such device needs two mechanisms for storing energy, one magnetic
(inductive) and one electrical (capacitive). Even free space has
both. If you eliminate either mechanism (or make one of them
insignificant, as would happen to the capacitance if the inductor
approaches zero size), you lose the transmission line like properties
as the dominant mechanism.

208. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 17:17:12 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <sMcYf.11335$tN3.10651@newssvr27.news.prodigy.net>
Source record: 61700

Cecil Moore wrote:

> Richard Harrison wrote:
>
>> Not only does Terman give voltage and current diagrams, he gives a phase
>> diagram. It shows that whenever the voltage or current crosses the zero
>> axis (changes sign) the phase angle changes abruptly by 180-degrees.
>> Phase is unchanging between these inflection points. This agrees with
>> what Cecil has said all along in this discussion.
>
>
> Kraus agrees. Yet W7EL used that unchanging phase to measure the
> delay through a loading coil. What's wrong with that picture?
>
> Some people, who no doubt have recognized their technical errors,
> simply refuse to discuss the technical subjects. Ian, OTOH, seems
> open to discussing those topics so please don't be too hard on him.
> An honest person deserves respect whether he is right or wrong.

Cecil, since you always leave the phase information out of
your version of the solution of the wave equation, I don't
think Diogenes is going to be knocking on your door anytime soon,
either.
73,
Tom Donaly, KA6RUH

209. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 17:38:51 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <L4dYf.11340$tN3.9391@newssvr27.news.prodigy.net>
Source record: 61701

Cecil Moore wrote:

> K7ITM wrote:
>
>> If you shove more electrons into ANY volume than you remove, you have
>> changed the charge within that volume.
>
>
> That is true but having zero standing wave amps at one end
> of a coil and one standing wave amp at the other end doesn't
> mean the charge is changing.
>
> If the forward current is the same magnitude at both ends
> of the coil, there's no change in charge.
>
> If the reflected current is the same magnitude at both
> ends of the coil there's no change in charge.
>
> The standing wave current is the sum of those two phasors.
> That sum is what is fooling you. Please pay attention to
> Hecht, in "Optics".
>
> The standing wave current profile does not move through
> the wire just as the standing wave light profile does
> not move through space.
>
> Standing wave current doesn't progress through a wire just
> as standing wave light doesn't progress through space.

It sure would be nice if were as simple as all that. We wouldn't
need NEC to help us if it were. You're missing the point, Cecil,
read Tom's post again, and meditate on this Ch'an buddhist koan
that I just made up in my head: Is the water the wave?
73,
Tom Donaly, KA6RUH

210. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 17:45:29 UTC
From: w8ji@akorn.net
Message-ID: <1144086329.511819.304050@v46g2000cwv.googlegroups.com>
Source record: 61702

Richard Harrison wrote:
> Tom, K7ITM wrote:
> "OK. I`m going to repeat it once more."
>
> It is still irrelevant.
>
> The question is:
> Does an antenna have a different current at the two ends of an inserted
> coil?
>
> Anyone interested in antennas should have access to Kraus, 3rd edition,
> "Antennas". On page 824 is Figure 23-21. Item (a) is a dipole with traps
> (only 2 terminals) for 2-frequency operation, 1st and 2nd resonances are
> the purpose of the traps. At F2, current outboard of the traps is
> practically zero.

Wow! First he uses TWT's.

....and then he shifts it to traps!!!

Next heating elemennts or slinkys I suppose.

211. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 17:45:36 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <4bdYf.11342$tN3.6347@newssvr27.news.prodigy.net>
Source record: 61703

Cecil Moore wrote:

> Mike Coombes wrote:
>
>> I don't understand what you are all on about, but, I side with K7ITM
>> "K7ITM" <k7itm@msn.com> wrote in message
>> Regards Mike.
>
>
> 1. If the magnitude of the forward current is the same at
> both ends of the coil, there is no net storage of charge.
>
> 2. If the magnitude of the reflected current is the same at
> both ends of the coil, there is no net storage of charge.
>
> These conditions satisfies K7ITM's requirements. But he
> is being fooled by the sum of the two above currents
> which is meaningless to net charge storage.
>
> Statements 1 and 2, above, already prove there is no net
> storage of charge. Looking at the standing wave current
> is meaningless after that technical fact.

There is no "net" charge storage on a capacitor in an AC environment, either, Cecil, but you can still get current to go through it. I wouldn't argue with Tom too much if I were you, Cecil, because without the facts he's pointed out in regards to charge, your inchoate theorizing wouldn't mean anything at all.
73,
Tom Donaly, KA6RUH

212. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 17:49:42 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns979A6E1FEED67doldridgsprintca@64.59.135.159>
Source record: 61704

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in
news:TYOdnR7bkb1j4LDZRVnysQ@bt.com:

> A choke is supposed to reduce longitudinal currents on the line to
> insignificant amounts.
>
> But very often it doesn't. If you have a choke in the line how much
> difference does it make if you remove it? If it makes no difference
> you might just as well leave it out.
>
> Insertion of a choke does not affect the manner in which the
> longitudinal current is induced to flow in the line in the first
> place.

If the common-mode current is entering the line directly from a coax shield or from one of the conductors of a "balanced" transmission line, a good choke may well render the impedance so high as to inhibit the common mode current. It will not, however, remove an INDUCED current that is being picked up in the near field of a driven antenna element, though it may change, as you say, the pattern of induced standing waves.

So, while a single choke balun may be sufficient in the former case, in the latter, it may well be necessary, as you say, to place one every quarter wave along the portion of the feedline in the antenna's near field.

On a more practical note, if feedline radiation is not actually damaging some important aspect of an antenna's pattern, it is often sufficient to choke off common mode currents AT THE TUNER so as to keep them out of the equipment, where they tend to cause problems, especially with today's solid state gear. If the pattern is a problem, then more drastic means may be needed. The most common common-mode current problems occur in unbalanced designs like "Windom" antennas (a true Windom uses a radiating single wire feedline). Most mast-mounted beam and vertical antennas will induce very little current on coax that is routed straight down the mast.

Mobil installations can be a problem, though, since the car body is part of the antenna system and can induce strong currents on the coax outer braid. As well, the outer braid may show a fairly low impedance at the feedpoint. An isolator can alleviate this considerably.

--
Dave Oldridge+
ICQ 1800667
VA7CZ

213. Re: Amother look at a choke balun.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 17:51:24 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns979A6E7035875doldridgsprintca@64.59.135.159>
Source record: 61705

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in
news:gN2dnYqR4JwhwK3ZRVnygA@bt.com:

> - - - - and placing a choke at 1/4-wave intervals all along the
> transmission line is not of great help - it is effective only at one
> frequency.

Actually, it's pretty effective at all frequencies below that one.

--
Dave Oldridge+
ICQ 1800667
VA7CZ

214. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 18:05:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <soo232tgo6jdbm1els07kfld3m23hsbt88@4ax.com>
Source record: 61706

On Mon, 3 Apr 2006 10:36:45 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>So the top hat adds some degrees to the tower.

Hi Yuri,

This is simply new wine in an old bottle. The same FCC site contains
top loaded antennas too. If you can find an example to support your
thesis, you will still have an obscure usage.

73's
Richard Clark, KB7QHC

215. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 18:10:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <65p232t3lodaduiu2dohadsdefm23uk5d7@4ax.com>
Source record: 61707

On Mon, 3 Apr 2006 09:35:16 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>So far, it looks to me that this exercise is worthwhile if we can improve
>the accuracy of modeling and our understanding of the phenomena.

Hi Yuri,

If you can't give me a metric of what the accurcy IS, then you cannot
say you've improved or worsened it at the end of the process, can you?

Like I said, "What's all the fuss over? What's to be
proven? and How do we know when it has BEEN proven?"

You aren't providing any forward momentum.

73's
Richard Clark, KB7QHC

216. Re: The Seven Warning Signs of Bogus Science

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 18:13:51 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns979A723986E37doldridgsprintca@64.59.135.159>
Source record: 61708

cliff wright <c.c.wright@paradise.net.nz> wrote in news:4430a096
@clear.net.nz:

> Irv Finkleman wrote:
>> I thought this article might be of interest in that we often see
>> claims about certain types of antennas which fall into the
>> category.
>>
>> From
>> http://chronicle.com/free/v49/i21/21b02001.htm
>>
>> POINT OF VIEW
>> The Seven Warning Signs of Bogus Science
>> By ROBERT L. PARK
>>
>> The National Aeronautics and Space Administration is investing close
to
>> a million dollars in an obscure Russian scientist's antigravity
>> machine, although it has failed every test and would violate the most
>> fundamental laws of nature. The Patent and Trademark Office recently
>> issued Patent 6,362,718 for a physically impossible motionless
>> electromagnetic generator, which is supposed to snatch free energy
from
>> a vacuum. And major power companies have sunk tens of millions of
>> dollars into a scheme to produce energy by putting hydrogen atoms into
>> a state below their ground state, a feat equivalent to mounting an
>> expedition to explore the region south of the South Pole.
>>
>> There is, alas, no scientific claim so preposterous that a scientist
>> cannot be found to vouch for it. And many such claims end up in a
court
>> of law after they have cost some gullible person or corporation a lot
>> of money. How are juries to evaluate them?
>>
>> Before 1993, court cases that hinged on the validity of scientific
>> claims were usually decided simply by which expert witness the jury
>> found more credible. Expert testimony often consisted of tortured
>> theoretical speculation with little or no supporting evidence. Jurors
>> were bamboozled by technical gibberish they could not hope to follow,
>> delivered by experts whose credentials they could not evaluate.
>>
>> In 1993, however, with the Supreme Court's landmark decision in
Daubert
>> v. Merrell Dow Pharmaceuticals, Inc. the situation began to change.

The
>> case involved Bendectin, the only morning-sickness medication ever
>> approved by the Food and Drug Administration. It had been used by
>> millions of women, and more than 30 published studies had found no
>> evidence that it caused birth defects. Yet eight so-called experts
were
>> willing to testify, in exchange for a fee from the Daubert family,
that
>> Bendectin might indeed cause birth defects.
>>
>> In ruling that such testimony was not credible because of lack of
>> supporting evidence, the court instructed federal judges to serve as
>> "gatekeepers," screening juries from testimony based on scientific
>> nonsense. Recognizing that judges are not scientists, the court
invited
>> judges to experiment with ways to fulfill their gatekeeper
>> responsibility.
>>
>> Justice Stephen G. Breyer encouraged trial judges to appoint
>> independent experts to help them. He noted that courts can turn to
>> scientific organizations, like the National Academy of Sciences and
the
>> American Association for the Advancement of Science, to identify
>> neutral experts who could preview questionable scientific testimony
and
>> advise a judge on whether a jury should be exposed to it. Judges are
>> still concerned about meeting their responsibilities under the Daubert
>> decision, and a group of them asked me how to recognize questionable
>> scientific claims. What are the warning signs?
>>
>> I have identified seven indicators that a scientific claim lies well
>> outside the bounds of rational scientific discourse. Of course, they
>> are only warning signs -- even a claim with several of the signs could
>> be legitimate.
>>
>> 1. The discoverer pitches the claim directly to the media. The
>> integrity of science rests on the willingness of scientists to expose
>> new ideas and findings to the scrutiny of other scientists. Thus,
>> scientists expect their colleagues to reveal new findings to them
>> initially. An attempt to bypass peer review by taking a new result
>> directly to the media, and thence to the public, suggests that the
work
>> is unlikely to stand up to close examination by other scientists.
>>
>> One notorious example is the claim made in 1989 by two chemists from
>> the University of Utah, B. Stanley Pons and Martin Fleischmann, that
>> they had discovered cold fusion -- a way to produce nuclear fusion
>> without expensive equipment. Scientists did not learn of the claim
>> until they read reports of a news conference. Moreover, the
>> announcement dealt largely with the economic potential of the

discovery
>> and was devoid of the sort of details that might have enabled other
>> scientists to judge the strength of the claim or to repeat the
>> experiment. (Ian Wilmut's announcement that he had successfully cloned
>> a sheep was just as public as Pons and Fleischmann's claim, but in the
>> case of cloning, abundant scientific details allowed scientists to
>> judge the work's validity.)
>>
>> Some scientific claims avoid even the scrutiny of reporters by
>> appearing in paid commercial advertisements. A health-food company
>> marketed a dietary supplement called Vitamin O in full-page newspaper
>> ads. Vitamin O turned out to be ordinary saltwater.
>>
>> 2. The discoverer says that a powerful establishment is trying to
>> suppress his or her work. The idea is that the establishment will
>> presumably stop at nothing to suppress discoveries that might shift
the
>> balance of wealth and power in society. Often, the discoverer
describes
>> mainstream science as part of a larger conspiracy that includes
>> industry and government. Claims that the oil companies are frustrating
>> the invention of an automobile that runs on water, for instance, are a
>> sure sign that the idea of such a car is baloney. In the case of cold
>> fusion, Pons and Fleischmann blamed their cold reception on physicists
>> who were protecting their own research in hot fusion.
>>
>> 3. The scientific effect involved is always at the very limit of
>> detection. Alas, there is never a clear photograph of a flying saucer,
>> or the Loch Ness monster. All scientific measurements must contend
with
>> some level of background noise or statistical fluctuation. But if the
>> signal-to-noise ratio cannot be improved, even in principle, the
effect
>> is probably not real and the work is not science.
>>
>> Thousands of published papers in para-psychology, for example, claim
to
>> report verified instances of telepathy, psychokinesis, or
precognition.
>> But those effects show up only in tortured analyses of statistics. The
>> researchers can find no way to boost the signal, which suggests that
it
>> isn't really there.
>>
>> 4. Evidence for a discovery is anecdotal. If modern science has
learned
>> anything in the past century, it is to distrust anecdotal evidence.
>> Because anecdotes have a very strong emotional impact, they serve to
>> keep superstitious beliefs alive in an age of science. The most
>> important discovery of modern medicine is not vaccines or antibiotics,

>> it is the randomized double-blind test, by means of which we know what
>> works and what doesn't. Contrary to the saying, "data" is not the
>> plural of "anecdote."
>>
>> 5. The discoverer says a belief is credible because it has endured for
>> centuries. There is a persistent myth that hundreds or even thousands
>> of years ago, long before anyone knew that blood circulates throughout
>> the body, or that germs cause disease, our ancestors possessed
>> miraculous remedies that modern science cannot understand. Much of
what
>> is termed "alternative medicine" is part of that myth.
>>
>> Ancient folk wisdom, rediscovered or repackaged, is unlikely to match
>> the output of modern scientific laboratories.
>>
>> 6. The discoverer has worked in isolation. The image of a lone genius
>> who struggles in secrecy in an attic laboratory and ends up making a
>> revolutionary breakthrough is a staple of Hollywood's science-fiction
>> films, but it is hard to find examples in real life. Scientific
>> breakthroughs nowadays are almost always syntheses of the work of many
>> scientists.
>>
>> 7. The discoverer must propose new laws of nature to explain an
>> observation. A new law of nature, invoked to explain some
extraordinary
>> result, must not conflict with what is already known. If we must
change
>> existing laws of nature or propose new laws to account for an
>> observation, it is almost certainly wrong.
>>
>> I began this list of warning signs to help federal judges detect
>> scientific nonsense. But as I finished the list, I realized that in
our
>> increasingly technological society, spotting voodoo science is a skill
>> that every citizen should develop.
>>
>> Robert L. Park is a professor of physics at the University of Maryland
>> at College Park and the director of public information for the
American
>> Physical Society. He is the author of Voodoo Science: The Road From
>> Foolishness to Fraud (Oxford University Press, 2002).
>>
>> http://chronicle.com
>> Section: The Chronicle Review
>> Volume 49, Issue 21, Page B20
>
> Some good points there Irv!
> 7. Is very interesting though. I'm an amateur astronomer as well as a
ham
> and I'm frequently amused, or saddened, by some of the extreme efforts

> to "save" the "Big Bang" theory.
> One recent one had negative mass matter, a cosmic repulsion force which
> has never been observed and cold dark invisible matter all brought in.
> Of course there are WIMPS MACHOS and a period of inflation at many
times
> the speed of light involved too.
> To me that makes the "Big Bang" a very suspect theory!!

It IS very suspect. The trouble is, nobody has an iota of a clue what to replace it with. And this will probably remain the case until we have some solid quantum theory of gravity to work with.

> And that IS the position of many of the "establishment" cosmologists!
> These problems are not just on the science "fringe" unfortunately.
> A couple of brave souls recently proposed the simple expedient of very
> slighty modifing the inverse square law of gravity at vast distances.
> It seems to explain many problems of current theories, but it was
> "jumped on" from a great height by scientists who don't ever seem to
> have heard of Occam's razor.

Yes...very often the replacement "laws of nature" turn out to approximate very closely to the ones we had before. After all, a "law of nature" is really just a VERY persistent (and often mathematical) observation about nature.

> Regards Cliff wright.
>
> BTW I have a bet with several of my old colleagues at Auckland
> university that LIGO won't detect any "gravitational waves"
> So far it has been about 3 years and I haven't had to pay out.

But we ARE dealing with a phenomenon that is at the limit of detection here.

--
Dave Oldridge+
ICQ 1800667

217. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 18:37:05 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144089425.456333.273820@i39g2000cwa.googlegroups.com>
Source record: 61709

Thanks, Tom.

In fact, let's get back to something very basic about antennas.

Acceleration of CHARGE results in electromagnetic RADIATION.

RADIATION impinging on a receiving antenna (and on anything else that freely transports charge) causes acceleration of CHARGE within that antenna.

So when we are talking about antennas, it is very appropriate to be talking about charge, and exactly what happens to it to move it around and to accelerate it as a function of time, everywhere in the structure.

A voltage applied to the feedpoint terminals of an antenna causes CHARGE to be put into motion. Accumulation of CHARGE along the conductors--the distribution of charge as a function of time and space--in turn results in electric fields in the vicinity of the antenna. Motion of charge results in magnetic fields in the vicinity of the antenna. Capacitance and inductance are manifestations of the electric and magnetic fields, respectively. Taken as a whole, the motion of charge and the resulting electric and magnetic fields give rise to waves: the waves, too, are manifestations of the electric and magnetic fields. ALL of these are consistent with each other, and to a very good approximation agree with the descriptions worked out by Faraday, Gauss, Maxwell and all many years ago. (We don't need quantum theory to be talking about performance of an 80 meter mobile antenna!)

Please, let's keep it straight that the motion of charge is FUNDAMENTAL to all this analysis, and everything else will fall out very nicely from an accurate accounting of the motion of charge within the system. It is NOT irrelevant at all; it is at the very heart of the operation of ALL antenna systems.

Cheers,
Tom

218. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 18:43:06 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <_0eYf.11353$tN3.5319@newssvr27.news.prodigy.net>
Source record: 61710

K7ITM wrote:
> "Cyclical variation in charge (contained
> within a volume)" means that on average the charge stays constant, but
> it does not mean that it's constant over some arbitratily short but
> finite length of time.

The current reported by EZNEC is RMS current, Tom. What happens
within a cycle is irrelevant to this discussion.

We are not and never have been discussing variations within a
cycle. There's just no point. We have been discussing RMS values
of currents. Your attempt to again divert the issue is noted. We
are talking about net charge spread out over many steady-state
cycles. That net charge is always zero no matter what the RMS
value of the standing wave current at the ends of the coil.

> Without the capacitance, without the ability to store charge, a
> transmission line, an antenna wire, a loading coil, all of them--would
> not have the ability to cause delay. Freespace, without a non-zero
> permittivity (capacitance), would allow infinite speed of light. But
> all these things DO have capacitance, and they DO have
> speed-of-propagation at the speed of light or slower.

Please tell us something we don't already know.

It has become apparent that the discussion is not about coils at
all. It is about the nature of standing waves whether existing
in a transmission line, a standing wave antenna wire, or a coil.
--
73, Cecil http://www.qsl.net/w5dxp

219. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 18:58:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <wfeYf.11359$tN3.2239@newssvr27.news.prodigy.net>
Source record: 61711

Tom Donaly wrote:
> If it's a solution to the wave equation it's o.k., Cecil, but
> Hecht is still not using the case where there is a phase difference
> between the two waves.

Yes, he is, Tom. The phase *disappears* when you add the two
traveling waves. That you don't recognize that fact of physics
is the source of your misconception. The forward and reflected
wave phasors are rotating in opposite directions at the same
angular velocity. That makes their sum a constant phase value
for half the cycle and the opposite constant phase value for
the other half of the cycle.

I and Richard Harrison have already explained that a number of
times quoting Kraus and Terman.

Here are a number of problems. I(f) is forward current and
I(r) is reflected current. Please everybody, perform the
following phasor additions where I(f)+I(r) is the *standing
wave current*:

I(f) I(r) I(f)+I(r)

1 amp at 0 deg 1 amp at 0 deg _____

1 amp at -30 deg 1 amp at +30 deg _____

1 amp at -60 deg 1 amp at +60 deg _____

1 amp at -90 deg 1 amp at +90 deg _____

1 amp at -120 deg 1 amp at +120 deg _____

1 amp at -150 deg 1 amp at +150 deg _____

1 amp at -180 deg 1 amp at +180 deg _____

If you guys will take pen to paper and fill in those blanks
you will uncover the misconception that has haunted this
newsgroup for many weeks. If you need help with the math,
feel free to ask for help.
--
73, Cecil http://www.qsl.net/w5dxp

220. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 19:01:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <bieYf.11360$tN3.6489@newssvr27.news.prodigy.net>
Source record: 61712

Tom Donaly wrote:
> When are you going to consider
> field theory in your analysis, Cecil?

That's a fair question, Tom. The answer is just as soon as someone comes up with an example for which the distributed network model fails. We have plenty of examples where the lumped circuit model fails but not one example yet that the distributed network model won't handle.
--
73, Cecil http://www.qsl.net/w5dxp

221. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 19:07:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pneYf.11363$tN3.8888@newssvr27.news.prodigy.net>
Source record: 61713

Tom Donaly wrote:
> Hecht was talking about two opposing waves of the same phase and
> amplitude interfering with each other. You can't guarantee, in a real
> antenna, that the two waves do have the same phase and magnitude.

:-) Hecht was talking about two coherent EM waves traveling in
opposite directions. We are talking about two coherent EM waves
traveling in opposite directions. There is a small traveling
wave component but it doesn't affect the standing wave. It is
what is left over from the standing wave.

This discussion has not been about coils. We need to discuss
an unterminated lossless transmission line and then move on
to 1/2 wavelength thin-wire standing wave antennas.
--
73, Cecil http://www.qsl.net/w5dxp

222. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 19:15:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0veYf.11366$tN3.1035@newssvr27.news.prodigy.net>
Source record: 61714

John Popelish wrote:

> Cecil Moore wrote:
>> That is a false statement and is at the root of the misconceptions.
>> Standing wave current does not have to be equal.
>
> I assume you are meaning that the RMS current at one physical point must
> not equal the RMS current at some other point.

Yes, the RMS value of the standing wave current at the bottom of
the coil doesn't have to bear any relationship to the RMS value
of the standing wave current at the top of the coil.

> Aren't you claiming that the coil has transmission line like properties,
> in that it takes time for a wave to pass through it?

Yes

> Any such device needs two mechanisms for storing energy, one magnetic
> (inductive) and one electrical (capacitive). Even free space has both.
> If you eliminate either mechanism (or make one of them insignificant, as
> would happen to the capacitance if the inductor approaches zero size),
> you lose the transmission line like properties as the dominant mechanism.

There is no net charge carried over from cycle to cycle. There is no
net storage of charge even if the steady-state RMS value of the standing
wave current is zero at one end of the coil and 2 amps at the other end.

The problem here is not how a coil works. The problem is how standing
waves work. Forget the coil. Start with a lossless unterminated
transmission line and then step up to a 1/2 wavelength thin wire dipole.

It is obvious that a number of people just don't understand the nature
of a standing wave that doesn't move through a wire along with its
phasor that doesn't rotate relative to the source.
--
73, Cecil http://www.qsl.net/w5dxp

223. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 19:18:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <IxeYf.11367$tN3.7603@newssvr27.news.prodigy.net>
Source record: 61715

Tom Donaly wrote:
> Cecil, since you always leave the phase information out of
> your version of the solution of the wave equation, I don't
> think Diogenes is going to be knocking on your door anytime soon,
> either.

I'm not leaving phase out, Tom, Mother Nature leaves phase out
of the standing wave equation. What is it about Gene Fuller's
posting that you don't understand?

Regarding the cos(kz)*cos(wt) term in a standing wave:

> Gene Fuller, W4SZ wrote:
>> In a standing wave antenna problem, such as the one you describe, there is no
>> remaining phase information. Any specific phase characteristics of the traveling
>> waves died out when the startup transients died out.
>>
>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen again.
>>
>> The only "phase" remaining is the cos (kz) term, which is really an amplitude
>> description, not a phase.
--
73, Cecil http://www.qsl.net/w5dxp

224. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 19:19:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7zeYf.11368$tN3.10940@newssvr27.news.prodigy.net>
Source record: 61716

w8ji@akorn.net wrote:
> Wow! First he uses TWT's.
> ....and then he shifts it to traps!!!
> Next heating elemennts or slinkys I suppose.

Wow, consider the technical content of your posting and wonder
why there is none.
--
73, Cecil http://www.qsl.net/w5dxp

225. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 19:22:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sBeYf.11369$tN3.6479@newssvr27.news.prodigy.net>
Source record: 61717

Tom Donaly wrote:
> There is no "net" charge storage on a capacitor in an AC
> environment, either, Cecil, but you can still get current
> to go through it.

True, but completely irrelevant to the present discussion
so more than likely another straw man.

Once more, the subject is the RMS standing wave envelope
reported by EZNEC. Brownian motion of individual electrons
is completely irrelevant.
--
73, Cecil http://www.qsl.net/w5dxp

226. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 19:45:18 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144093518.152768.173150@u72g2000cwu.googlegroups.com>
Source record: 61718

Hey, Cecil, have you read "Freakonomics"? (Yes, it's relevant to the discussion.)

227. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 19:59:39 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e0rurb$1o2a$1@f04n12.cac.psu.edu>
Source record: 61719

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>> No matter what facts multiple independent sources submit, those who
>> have faith will ignore the facts.
>
> :-) That apparently includes individuals with faith in the
> lumped circuit model under conditions where it is known to
> fail. :-)

Aww Cecil, does every thread have to turn into that? 8^)

-73 de Mike KB3EIA -

228. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 20:44:28 UTC
From: richardharrison@webtv.net
Message-ID: <27505-4431892C-1147@storefull-3257.bay.webtv.net>
Source record: 61720

Tom, K7ITM wrote:
"A voltage applied to the feedpoint terminals of an antenna causes
CHARGE to be put in motion. Accumulation of CHARGE along the
conductors--the distribution of charge as a function of time and
space--in turn results in electric fields in the vicinity of the
antenna."

Agreed that current is charge in motion. Accumulation of charge,
however, is a job for an accumulator, another name for a storage
battery. These have little to do with the possibility of an antenna coil
having currents through the coil from opposite directions creating
unequal totals at the ends of the coil.

I don`t know if this Tom is picking a fight to gain attention before
going to Dayton but his postings have the right fragarance.

Best regards, Richard Harrison, KB5WZI

229. Re: RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 21:15:30 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <e0s39i$ob7$2@engnntp2.cig.mot.com>
Source record: 61721

These cellular extenders (that I am familiar with) were a simple way to
put a broadband "antenna" at a remote location and have it behave as if it
was connected by coax. One sector antenna of a cell site could be
allocated to the remote location and all the control and system interface
wasn't complicated in any way -- except for accounting for the coverage area
(which was usually a RF hole needing coverage).
With the amount of equipment required to do it right (modulate the RF onto
the fiber and demodulate it and amplify it back to the required level), it
would be just as easy for a ham to simply put the rig at the remote location
and send control and audio up the fiber -- if he really wanted the
advantages of fiber.
There are fiber boxes that do this for a fraction of the cost of the
"RF" type --- they have audio and digital interfaces. If you can do it on
the Internet, fiber is simple as well.

73, Steve, K9DCI

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:3cc6g3-meh.ln1@p400bob.personal.cox.net...
> Hi Marco
>
> Yes but its more of use in a commercial/military than amateur radio
> environment.
>
> I remember that certain cellular site installs I was involved in ran
> fiber from a the "main" RF TX/RX device to a remote location. The remote
> location simply had a broadband amplifier for the separate TX and RX.
> This was used in an underground railway station going out to maybe 3-4
> locations. It was more cost effective doing it this way than by long
> coax runs at 900/1800MHz.
>
> It will be a cost/benefit tradeoff of whatever RF/SMOF/RF interface
> device you have to purchase vs the cost of coax vs fiber.
>
> This is something an amateur radio person isnt likely to do for his/her
> hobby. I also doubt whether it will be commercially viable for amateur
> radio manufacturers to include fiber interfacing.
>
> OBTW you can tap/intercept optical fibre .
>
> Cheers Bob W5/VK2YQA
>
> Marco Licetti wrote:
> > I am not here to pester about own company - I do NOT work for this but
just

> > to share experience:

230. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 22:05:09 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <5K2dnefSBq80B6zZRVn-ug@adelphia.com>
Source record: 61722

Cecil Moore wrote:
(snip)
> Here are a number of problems. I(f) is forward current and
> I(r) is reflected current. Please everybody, perform the
> following phasor additions where I(f)+I(r) is the *standing
> wave current*:
>
> I(f) I(r) I(f)+I(r)
>
> 1 amp at 0 deg 1 amp at 0 deg 2 A @ 0 deg
>
> 1 amp at -30 deg 1 amp at +30 deg 1.72 A @ 0 deg
>
> 1 amp at -60 deg 1 amp at +60 deg 1 A @ 0 deg
>
> 1 amp at -90 deg 1 amp at +90 deg 0 A @ 0 deg
>
> 1 amp at -120 deg 1 amp at +120 deg 1 A @ 180 deg
>
> 1 amp at -150 deg 1 amp at +150 deg 1.72 A @ 180 deg
>
> 1 amp at -180 deg 1 amp at +180 deg 2 A @ 180 deg
>
> If you guys will take pen to paper and fill in those blanks
> you will uncover the misconception that has haunted this
> newsgroup for many weeks. If you need help with the math,
> feel free to ask for help.

What misconception? That all current in a standing wave has the same
phase, rather than one of two possible phases?

231. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 22:20:01 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <8redneWq1um7A6zZRVn-iw@adelphia.com>
Source record: 61723

Cecil Moore wrote:
> John Popelish wrote:
>
>> Cecil Moore wrote:
>>
>>> That is a false statement and is at the root of the misconceptions.
>>> Standing wave current does not have to be equal.
>>
>>
>> I assume you are meaning that the RMS current at one physical point
>> must not equal the RMS current at some other point.
>
>
> Yes, the RMS value of the standing wave current at the bottom of
> the coil doesn't have to bear any relationship to the RMS value
> of the standing wave current at the top of the coil.
>
>> Aren't you claiming that the coil has transmission line like
>> properties, in that it takes time for a wave to pass through it?
>
>
> Yes
>
>> Any such device needs two mechanisms for storing energy, one magnetic
>> (inductive) and one electrical (capacitive). Even free space has
>> both. If you eliminate either mechanism (or make one of them
>> insignificant, as would happen to the capacitance if the inductor
>> approaches zero size), you lose the transmission line like properties
>> as the dominant mechanism.
>
>
> There is no net charge carried over from cycle to cycle.

Of course. no one is talking about the red herring of charge stored
over a whole cycle. Everyone (except, possibly you) is talking about
charge stored and recovered twice per cycle.

> There is no net storage of charge even if the steady-state RMS value
> of the standing wave current is zero at one end of the coil
> and 2 amps at the other end.

And no one but you brings up "net storage". We are all talking about
ordinary capacitive charge storage within a cycle. And there are two
equal and opposite half cycles of that. If there is Ac voltage and
capacitance to the universe, there is charge storage, twice within

every cycle, one positive and one negative.

> The problem here is not how a coil works. The problem is how standing
> waves work.

Standing waves have AC voltage swing. That applied to capacitance causes real charge storage and retrieval. Just as it does with traveling waves. How could the standing AC voltage not charge and discharge, charge the other direction and discharge every cycle, the capacitance between the conductor and the universe?

> Forget the coil. Start with a lossless unterminated
> transmission line and then step up to a 1/2 wavelength thin wire dipole.

The capacitance in a lossless transmission line is between the two conductors. For the 1/2 wavelength thin wire dipole, the capacitance is to the surroundings. But the charge stored and dumped into that capacitance twice a cycle is very similar, except that in the case of the antenna, some energy leaves in the form of radiation.

> It is obvious that a number of people just don't understand the nature
> of a standing wave that doesn't move through a wire along with its
> phasor that doesn't rotate relative to the source.

It is obvious to me that you are one of them. Every point on a line carrying a standing wave (except the node points) has AC voltage on it, and AC current through it. The amplitude and phase of those voltages and currents can be described as a phasor, with respect to some reference phase of the same frequency. As you move along the line, the amplitude changes and when you pass through a node the phase reverses. So the phasor does not rotate with position change, except for a step change of 180 degrees at nodes, rather than smooth rotation with respect to position.

For a traveling wave, every point on the line has an AC voltage on it, and an AC current passing through it. The amplitude is constant along the line, but the phasor rotates as you move along the line (the phase is linearly dependent on position). But at any single point on the line, a non rotating phasor describes the amplitude and phase with respect to a reference phase of the same frequency.

232. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 22:24:55 UTC
From: richardharrison@webtv.net
Message-ID: <11783-4431A0B7-956@storefull-3254.bay.webtv.net>
Source record: 61724

Richard Clark wrote:
"This must be a convention that is particular to only a very few hams.
The FCC database describes AM antennas in both electrical degrees and
physical height as follows."

It is the convention to describe AM broadcast towers in electrical
degrees. Harold Ennes reprints an RCA resistance chart for heights
between 50 and 200 degrees in "AM-FM Broadcast Maintenance".

Formula given is:
Height in electrical degrees = Height in feet X frequency in kc X 1.016
X 10 to the minus 6 power.

Example Towers:
50-degrees self-supporting: R=7. jx=-j100
50-degrees guyed mast: R=8, jx=-j222
90-degrees self-supporting: R=40, jx=+j35
90-degrees guyed mast: R=36, jx=j0
200-degrees self-supporting: R=23, jx=-j50
200-degrees guyed mast: R=80, jx=-400

There are values of R and X for 16 different heights. If you are
interested, look at the book.

Best regards, Richard Harrison, KB5WZI

233. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 22:53:17 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <xHhYf.11418$tN3.10074@newssvr27.news.prodigy.net>
Source record: 61725

John Popelish wrote:
> What misconception? That all current in a standing wave has the same
> phase, rather than one of two possible phases?

The misconception is not yours, John. W7EL used that current to
try to measure the phase shift through a coil and so did W8JI
who came up with an unbelievable 3 nS.
--
73, Cecil http://www.qsl.net/w5dxp

234. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 23:05:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <jThYf.11421$tN3.9768@newssvr27.news.prodigy.net>
Source record: 61826

John Popelish wrote:
> Of course. no one is talking about the red herring of charge stored
> over a whole cycle.

Of course, *everyone* except you and Tom Donaly are talking about
charge stored over a whole cycle. That's the entire base of their
arguments. The unbalance in the *RMS* current at the bottom of the
coil and the *RMS* current at the top of the coil is what the entire
discussion is all about.

The currents measured by W8JI and W7EL were *RMS* currents. The
currents reported by EZNEC are *RMS* currents.

> And no one but you brings up "net storage". We are all talking about
> ordinary capacitive charge storage within a cycle.

If so, that is completely irrelevant to the discussion since
W8JI and W7EL are using *RMS* currents for their measurements
and EZNEC is reporting *RMS* currents.

Let me summarize it for you. W8JI and W7EL apparently think
that the RMS current value of zero at the bottom of the coil
Vs the RMS current value of one amp at the top of the coil
means energy is being sucked into the coil from some external
source.

How about assisting in a tutorial on standing waves rather
than diverting and obfuscating the issues?
--
73, Cecil http://www.qsl.net/w5dxp

235. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 23:21:58 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <q6iYf.65931$dW3.1531@newssvr21.news.prodigy.com>
Source record: 61827

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> If it's a solution to the wave equation it's o.k., Cecil, but
>> Hecht is still not using the case where there is a phase difference
>> between the two waves.
>
>
> Yes, he is, Tom. The phase *disappears* when you add the two
> traveling waves. That you don't recognize that fact of physics
> is the source of your misconception. The forward and reflected
> wave phasors are rotating in opposite directions at the same
> angular velocity. That makes their sum a constant phase value
> for half the cycle and the opposite constant phase value for
> the other half of the cycle.
>
> I and Richard Harrison have already explained that a number of
> times quoting Kraus and Terman.
>
> Here are a number of problems. I(f) is forward current and
> I(r) is reflected current. Please everybody, perform the
> following phasor additions where I(f)+I(r) is the *standing
> wave current*:
>
> I(f) I(r) I(f)+I(r)
>
> 1 amp at 0 deg 1 amp at 0 deg _____________
>
> 1 amp at -30 deg 1 amp at +30 deg _____________
>
> 1 amp at -60 deg 1 amp at +60 deg _____________
>
> 1 amp at -90 deg 1 amp at +90 deg _____________
>
> 1 amp at -120 deg 1 amp at +120 deg _____________
>
> 1 amp at -150 deg 1 amp at +150 deg _____________
>
> 1 amp at -180 deg 1 amp at +180 deg _____________
>
> If you guys will take pen to paper and fill in those blanks
> you will uncover the misconception that has haunted this
> newsgroup for many weeks. If you need help with the math,

> feel free to ask for help.

Cecil, if you don't put any phase information in your
original formula it won't be there when you say the
same thing some other way. But if you
do put it in there, then it has to affect both formulas.
If it disappears, you've done something wrong. If you and
Harrison can't figure out how to extract phase information
from a standing wave you should return your diplomas to
wherever you got them from.
73,
Tom Donaly, KA6RUH
(P.S. Let me give you a hint: first you have to find
out what phase means in a standing wave on a transmission
line. You probably already think you know, though, so I
don't expect you to bother much about it.)

236. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 23:24:58 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <e9iYf.65934$dW3.27341@newssvr21.news.prodigy.com>
Source record: 61828

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> Hecht was talking about two opposing waves of the same phase and
>> amplitude interfering with each other. You can't guarantee, in a real
>> antenna, that the two waves do have the same phase and magnitude.
>
>
> :-) Hecht was talking about two coherent EM waves traveling in
> opposite directions. We are talking about two coherent EM waves
> traveling in opposite directions. There is a small traveling
> wave component but it doesn't affect the standing wave. It is
> what is left over from the standing wave.
>
> This discussion has not been about coils. We need to discuss
> an unterminated lossless transmission line and then move on
> to 1/2 wavelength thin-wire standing wave antennas.

Has it ever occurred to you, Cecil, that a half wave dipole with
equal current and voltage waves traveling in opposite directions
wouldn't accept power?
73,
Tom Donaly, KA6RUH

237. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 23:25:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1233bo6bgqfh561@corp.supernews.com>
Source record: 61829

John Popelish wrote:
> . . .
> It is obvious to me that you are one of them. Every point on a line
> carrying a standing wave (except the node points) has AC voltage on it,
> and AC current through it. The amplitude and phase of those voltages
> and currents can be described as a phasor, with respect to some
> reference phase of the same frequency. As you move along the line, the
> amplitude changes and when you pass through a node the phase reverses.
> So the phasor does not rotate with position change, except for a step
> change of 180 degrees at nodes, rather than smooth rotation with respect
> to position.
>
> For a traveling wave, every point on the line has an AC voltage on it,
> and an AC current passing through it. The amplitude is constant along
> the line, but the phasor rotates as you move along the line (the phase
> is linearly dependent on position). But at any single point on the
> line, a non rotating phasor describes the amplitude and phase with
> respect to a reference phase of the same frequency.

There's a potential for ambiguity here, and that ambiguity has been used a number of times in this thread to cause confusion. So let me try to clarify things.

All phasors "rotate", in that every one contains an implicit term e^jwt. That term describes a rotation of the complex phasor quantity at the rotational frequency w (omega), but no change in amplitude. If a quantity doesn't include this implicit term, it's not a phasor, by definition. We can look at any phasor quantity in a system and compare the phase of its rotation with the phase of a reference, and from this assign a phase angle to it. In steady state, the phase angle doesn't change with time -- it's the phase difference between the w - rotating phasor and the w - rotating reference. Phasors of different rotational rates (that is, of different frequencies) can't be combined in the same analysis, unless the implicit term is made explicit, in which case they're no longer phasors.

The use of "rotation" in John's posting is talking about a change of phase with physical position. This usage has been confused with the time rotation of the phasor which comes from the implicit e^jwt term. I'd prefer to use the term "phase", which doesn't change with time in a steady state system, directly rather than "rotation" to describe a change in phase with position.

With that convention, we see that the phase of a pure traveling wave changes linearly with position. But when we sum forward and reverse

traveling waves together to get a total current (or voltage), the phase of the total current (or voltage) is no longer a linear function of position. In the special case of an open or short circuited transmission line, where the forward and reverse traveling waves are equal in amplitude, the phase doesn't change with position at all (except for a periodic reversal in current and voltage direction, which can be interpreted as a 180 degree phase change). But the phasor representing total voltage or current (which Cecil refers to as "standing wave current") at any point, which is the sum of two phasors representing forward and reverse traveling waves, does indeed rotate at w (omega) radians/second rate, just like its constituent phasors. The constant phase with position (of an open or shorted line) simply means that if you froze time at some instant and looked at the angles of the rotating phasors representing the total current at each point along the line, you'd find them all to be at the same angle. They're all rotating.

This isn't revolutionary or controversial -- you can find phasors discussed in any elementary circuit analysis text.[*] And it's not difficult to do the summation of forward and reverse traveling waves to see the result, but if you'd like to see how someone else did it, one of the clearest discussions I've found is in Chipman's _Transmission Lines_, a Schaum's Outline book.

[*] You have to be a little careful, though. In most introductions to phasors, the author introduces the e^jwt term early on, and quickly drops it from the phasor notation as is customary. So it's easy to forget it's there. But remembering that it is there is vital to understanding this topic, and to keep from being misled by misdirection which takes advantage of confusion and abbreviated notation.

Roy Lewallen, W7EL

238. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 23:30:59 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <TeiYf.65935$dW3.40442@newssvr21.news.prodigy.com>
Source record: 61830

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> Cecil, since you always leave the phase information out of
>> your version of the solution of the wave equation, I don't
>> think Diogenes is going to be knocking on your door anytime soon,
>> either.
>
>
> I'm not leaving phase out, Tom, Mother Nature leaves phase out
> of the standing wave equation. What is it about Gene Fuller's
> posting that you don't understand?
>
> Regarding the cos(kz)*cos(wt) term in a standing wave:
>
>> Gene Fuller, W4SZ wrote:
>>
>>> In a standing wave antenna problem, such as the one you describe,
>>> there is no remaining phase information. Any specific phase
>>> characteristics of the traveling waves died out when the startup
>>> transients died out.
>>>
>>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen
>>> again.
>>>
>>> The only "phase" remaining is the cos (kz) term, which is really an
>>> amplitude description, not a phase.

Well, I guess it's o.k. for you to believe that when a wave travels down
a transmission line it always ends up in phase with where it started.
That simplifies things for your theory. It doesn't make for a very
good transmission line, though.
73,
Tom Donaly, KA6RUH

239. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 23:33:46 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <uhiYf.65936$dW3.11432@newssvr21.news.prodigy.com>
Source record: 61831

Richard Harrison wrote:

> Tom, K7ITM wrote:
> "A voltage applied to the feedpoint terminals of an antenna causes
> CHARGE to be put in motion. Accumulation of CHARGE along the
> conductors--the distribution of charge as a function of time and
> space--in turn results in electric fields in the vicinity of the
> antenna."
>
> Agreed that current is charge in motion. Accumulation of charge,
> however, is a job for an accumulator, another name for a storage
> battery. These have little to do with the possibility of an antenna coil
> having currents through the coil from opposite directions creating
> unequal totals at the ends of the coil.
>
> I don`t know if this Tom is picking a fight to gain attention before
> going to Dayton but his postings have the right fragarance.
>
> Best regards, Richard Harrison, KB5WZI
>

If you don't understand the post, I guess a cheap shot is
better than no shot at all.
73,
Tom Donaly, KA6RUH

240. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 23:37:41 UTC
From: w8ji@akorn.net
Message-ID: <1144107461.423187.109850@z34g2000cwc.googlegroups.com>
Source record: 61832

Michael Coslo wrote:
> Cecil Moore wrote:
> > w8ji@akorn.net wrote:
> >> No matter what facts multiple independent sources submit, those who
> >> have faith will ignore the facts.
> >
> > :-) That apparently includes individuals with faith in the
> > lumped circuit model under conditions where it is known to
> > fail. :-)
>
>
> Aww Cecil, does every thread have to turn into that? 8^)

At least it isn't fractals, although it is getting almost that bad.

:-)

241. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-03 23:57:28 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <e9OdnR7d3a1hKazZRVn-uw@adelphia.com>
Source record: 61833

Cecil Moore wrote:
> John Popelish wrote:
>
>> Of course. no one is talking about the red herring of charge stored
>> over a whole cycle.
>
>
> Of course, *everyone* except you and Tom Donaly are talking about
> charge stored over a whole cycle.

Bull.

> That's the entire base of their
> arguments. The unbalance in the *RMS* current at the bottom of the
> coil and the *RMS* current at the top of the coil is what the entire
> discussion is all about.
>
> The currents measured by W8JI and W7EL were *RMS* currents. The
> currents reported by EZNEC are *RMS* currents.

And the capacitive currents can also be measured in RMS terms. So what?

>> And no one but you brings up "net storage". We are all talking about
>> ordinary capacitive charge storage within a cycle.
>
> If so, that is completely irrelevant to the discussion since
> W8JI and W7EL are using *RMS* currents for their measurements
> and EZNEC is reporting *RMS* currents.
>
> Let me summarize it for you. W8JI and W7EL apparently think
> that the RMS current value of zero at the bottom of the coil
> Vs the RMS current value of one amp at the top of the coil
> means energy is being sucked into the coil from some external
> source.

I don't read their responses that way. I read their responses as
saying that the current leaving or entering an end of an inductor
includes a capacitive component and an inductive component. The
capacitive current branches out of the coil to the surrounding space,
and is what allows a measured difference in the currents passing
through its two ends. The path through the wire to the other end is
not the only path for current.

> How about assisting in a tutorial on standing waves rather
> than diverting and obfuscating the issues?

I'm trying.

242. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 00:00:04 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <e9OdnRnd3a0FKKzZRVn-uw@adelphia.com>
Source record: 61834

Roy Lewallen wrote:
> John Popelish wrote:
>
>> . . .
>> It is obvious to me that you are one of them. Every point on a line
>> carrying a standing wave (except the node points) has AC voltage on
>> it, and AC current through it. The amplitude and phase of those
>> voltages and currents can be described as a phasor, with respect to
>> some reference phase of the same frequency. As you move along the
>> line, the amplitude changes and when you pass through a node the phase
>> reverses. So the phasor does not rotate with position change, except
>> for a step change of 180 degrees at nodes, rather than smooth rotation
>> with respect to position.
>>
>> For a traveling wave, every point on the line has an AC voltage on it,
>> and an AC current passing through it. The amplitude is constant along
>> the line, but the phasor rotates as you move along the line (the phase
>> is linearly dependent on position). But at any single point on the
>> line, a non rotating phasor describes the amplitude and phase with
>> respect to a reference phase of the same frequency.
>
>
> There's a potential for ambiguity here, and that ambiguity has been used
> a number of times in this thread to cause confusion. So let me try to
> clarify things.
>
> All phasors "rotate", in that every one contains an implicit term e^jwt.
> That term describes a rotation of the complex phasor quantity at the
> rotational frequency w (omega), but no change in amplitude. If a
> quantity doesn't include this implicit term, it's not a phasor, by
> definition. We can look at any phasor quantity in a system and compare
> the phase of its rotation with the phase of a reference, and from this
> assign a phase angle to it. In steady state, the phase angle doesn't
> change with time -- it's the phase difference between the w - rotating
> phasor and the w - rotating reference. Phasors of different rotational
> rates (that is, of different frequencies) can't be combined in the same
> analysis, unless the implicit term is made explicit, in which case
> they're no longer phasors.
>
> The use of "rotation" in John's posting is talking about a change of
> phase with physical position. This usage has been confused with the time
> rotation of the phasor which comes from the implicit e^jwt term. I'd
> prefer to use the term "phase", which doesn't change with time in a
> steady state system, directly rather than "rotation" to describe a

> change in phase with position.
>
> With that convention, we see that the phase of a pure traveling wave
> changes linearly with position. But when we sum forward and reverse
> traveling waves together to get a total current (or voltage), the phase
> of the total current (or voltage) is no longer a linear function of
> position. In the special case of an open or short circuited transmission
> line, where the forward and reverse traveling waves are equal in
> amplitude, the phase doesn't change with position at all (except for a
> periodic reversal in current and voltage direction, which can be
> interpreted as a 180 degree phase change). But the phasor representing
> total voltage or current (which Cecil refers to as "standing wave
> current") at any point, which is the sum of two phasors representing
> forward and reverse traveling waves, does indeed rotate at w (omega)
> radians/second rate, just like its constituent phasors. The constant
> phase with position (of an open or shorted line) simply means that if
> you froze time at some instant and looked at the angles of the rotating
> phasors representing the total current at each point along the line,
> you'd find them all to be at the same angle. They're all rotating.
>
> This isn't revolutionary or controversial -- you can find phasors
> discussed in any elementary circuit analysis text.[*] And it's not
> difficult to do the summation of forward and reverse traveling waves to
> see the result, but if you'd like to see how someone else did it, one of
> the clearest discussions I've found is in Chipman's _Transmission
> Lines_, a Schaum's Outline book.
>
> [*] You have to be a little careful, though. In most introductions to
> phasors, the author introduces the e^jwt term early on, and quickly
> drops it from the phasor notation as is customary. So it's easy to
> forget it's there. But remembering that it is there is vital to
> understanding this topic, and to keep from being misled by misdirection
> which takes advantage of confusion and abbreviated notation.

Excellent!

243. Re: paint antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 00:24:41 UTC
From: ml <m@di.net>
Message-ID: <m-836A15.20244203042006@news.verizon.net>
Source record: 61835

In article <122u6ah1aa5iv2e@corp.supernews.com>,
"David G. Nagel" <nagel@core.com> wrote:

> ml wrote:
>
> > just read a article someplace about a new conductive paint that is going
> > to be used by different sources (pvt/mil) to in effect paint an antenna
> > on a surface. once such use was an 'orbiting' blimp , planes etc to
> > repete signals
> >
> >
> > ok so i wonder my roof has a flat brick wall it's 40ft tall 40ft wide
> >
> > if i painted a antenna design think i'd get any useful performance in at
> > least one direction?
> >
> > unf it didn't state any spec's but it's commercial
> >
> >
> > just really thinking out louad how a antenna w/little profile but
> > otherwise large surfacce area might work
>
> Actually if the paint is continuous in it's conductivity there is no
> reason why a painted antenna picture would not work. Tuning it might be
> problematic but would work.
> Try it and report back.
>
> Dave WD9BDZ

the bricks have been recently waterproffed, thou i guess they will still
be soggy after a strong rain guess i'd just have to add a small amount
of paint, and keep painting till swr etc are where it need to be to make
resonant if it even works

sounds like a fun experiment can't wait to snag some paint

244. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 00:50:53 UTC
From: w8ji@akorn.net
Message-ID: <1144111853.486784.119070@i39g2000cwa.googlegroups.com>
Source record: 61836

> Cecil Moore wrote:
> > Let me summarize it for you. W8JI and W7EL apparently think
> > that the RMS current value of zero at the bottom of the coil
> > Vs the RMS current value of one amp at the top of the coil
> > means energy is being sucked into the coil from some external
> > source.

> John Popelish wrote:
> I don't read their responses that way. I read their responses as
> saying that the current leaving or entering an end of an inductor
> includes a capacitive component and an inductive component. The
> capacitive current branches out of the coil to the surrounding space,
> and is what allows a measured difference in the currents passing
> through its two ends. The path through the wire to the other end is
> not the only path for current.

You read what I wrote and what Roy wrote correctly John.

Cecil changes what other people write to suit his own needs. He changes what other people say, and then points out why the creatively edited text he invented is wrong. That's his debating style. Watch out for it!

73 Tom

245. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 01:35:40 UTC
From: tucker@conninc.com
Message-ID: <1144114540.224804.69900@u72g2000cwu.googlegroups.com>
Source record: 61837

Hello Jim I built a 910mhz coax antenna using 6 - 1/2 wave elements, 1/4 wave on bottom and the top. I used 3/8" copper hardline instead of coax i had to tried to adjust for a faster .88 VP but found using the same length as required for RG58 worked just as well. Initally i did not put the antenna up because at ground level it did not work very well on recieve, i was going to throw it out but desided to put it up anyway. It really made a big difference once it was in the air @ 25', it works much better than a Sinclair commercial omni i had been using,

246. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 01:39:12 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1233ji3112ktg52@corp.supernews.com>
Source record: 61838

w8ji@akorn.net wrote:
>> Cecil Moore wrote:
>>> Let me summarize it for you. W8JI and W7EL apparently think
>>> that the RMS current value of zero at the bottom of the coil
>>> Vs the RMS current value of one amp at the top of the coil
>>> means energy is being sucked into the coil from some external
>>> source.
>
>> John Popelish wrote:
>> I don't read their responses that way. I read their responses as
>> saying that the current leaving or entering an end of an inductor
>> includes a capacitive component and an inductive component. The
>> capacitive current branches out of the coil to the surrounding space,
>> and is what allows a measured difference in the currents passing
>> through its two ends. The path through the wire to the other end is
>> not the only path for current.
>
> You read what I wrote and what Roy wrote correctly John.
>
> Cecil changes what other people write to suit his own needs. He changes
> what other people say, and then points out why the creatively edited
> text he invented is wrong. That's his debating style. Watch out for it!

Absolutely true. Cecil complains that people won't engage in a technical discussion with him. Many have tried, and all we get in response is evasion, misquotes, diversion, and brushing off of any evidence contrary to his preconceived notions.

Anyone who wants to know what I said or what I think should read what I've posted. If it's not clear, ask. But don't trust Cecil to tell you.

Roy Lewallen, W7EL

247. HDTV Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 01:43:04 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-20B980.20430403042006@newsclstr02.news.prodigy.com>
Source record: 61839

What is unique about the new HDTV antennas? We just picked up a new HDTV with a tuner and was advised to pickup a simple HDTV antenna to pick up the local digital broadcast. Any magic to these other the high gain claims on the boxes?

Dick AA5VU

248. Re: HDTV Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 01:48:46 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <1233k55622e9u4c@corp.supernews.com>
Source record: 61840

aRKay wrote:
> What is unique about the new HDTV antennas? We just picked up a new
> HDTV with a tuner and was advised to pickup a simple HDTV antenna to
> pick up the local digital broadcast. Any magic to these other the high
> gain claims on the boxes?
>
> Dick AA5VU

Dick;

There is absolutely nothing unique about a so called HDTV antenna. I would get a good quality antenna though. Stations are currently transmitting at reduced power to save a few dollars until they have to goto high power.

Dave WD9BDZ

249. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 02:06:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <PwkYf.64117$Jd.56135@newssvr25.news.prodigy.net>
Source record: 61841

Tom Donaly wrote:
> If it disappears, you've done something wrong.

There is no phase information in standing wave phase, Tom.
I can't find it, Gene fuller can't find it, Eugene Hecht
can't find it, and James Clerk Maxwell can't find it.

Any and all phase information in the standing wave phase
disappears during superposing.

Let me give you another example. Assume that we superpose
one amp of DC current flowing in one direction and one
amp of DC current flowing in the other direction. What
does the superposed amplitude tell us about the amplitudes
of the superposed currents? Nothing, except they were
equal.
--
73, Cecil http://www.qsl.net/w5dxp

250. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 02:13:05 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <RCkYf.64118$Jd.38599@newssvr25.news.prodigy.net>
Source record: 61842

Tom Donaly wrote:
> Has it ever occurred to you, Cecil, that a half wave dipole with
> equal current and voltage waves traveling in opposite directions
> wouldn't accept power?

It is an approximation, Tom, like a lossless line. For real world dipoles, the voltage and current decay by about 10% between the forward wave and the arrival of the reflected wave. Kraus and Terman both use that approximation in their examples.

We aren't saying anything about the traveling wave part of the waves. The discussion is about the standing wave portion of the wave which, by definition, requires equal magnitudes.
--
73, Cecil http://www.qsl.net/w5dxp

251. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 02:22:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kLkYf.64121$Jd.38636@newssvr25.news.prodigy.net>
Source record: 61843

Roy Lewallen wrote:
> The constant
> phase with position (of an open or shorted line) simply means that if
> you froze time at some instant and looked at the angles of the rotating
> phasors representing the total current at each point along the line,
> you'd find them all to be at the same angle. They're all rotating.

Yes, when I said standing wave current phase doesn't rotate, I meant
with respect to the source current phase. At any instant in time,
the phase of the standing wave current is unchanging up and down
the line.

Assume the standing wave current all up and down the dipole is of
constant phase with no variation with 'x'. Roy, you used that
current to try to measure the delay through a coil. How did you
plan to measure that delay with a signal known to be the same
phase not only at both ends of the coil but all up and down
the antenna?
--
73, Cecil http://www.qsl.net/w5dxp

252. Re: Current through coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 02:24:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <BNkYf.64122$Jd.36594@newssvr25.news.prodigy.net>
Source record: 61844

Tom Donaly wrote:
> Well, I guess it's o.k. for you to believe that when a wave travels down
> a transmission line it always ends up in phase with where it started.
> That simplifies things for your theory. It doesn't make for a very
> good transmission line, though.

It makes for a very good open-circuit stub. That's essentially
what a standing wave antenna is - a lossy open-circuit stub.
Thank goodness, the losses are to radiation.
--
73, Cecil http://www.qsl.net/w5dxp

253. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 02:25:14 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4431d90a$0$7330$39cecf19@news.twtelecom.net>
Source record: 61845

Cecil Moore wrote:

> w8ji@akorn.net wrote:
>
>> No matter what facts multiple independent sources submit, those who
>> have faith will ignore the facts.
>
>
> :-) That apparently includes individuals with faith in the
> lumped circuit model under conditions where it is known to
> fail. :-)

Cecil

Please drop it. Not every subject is an attack on you, and the rest
should not be used as an opportunity for your propoganda.

It is very tiring.

tom
K0TAR

254. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 02:37:18 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <yZkYf.64129$Jd.61246@newssvr25.news.prodigy.net>
Source record: 61846

John Popelish wrote:

> Cecil Moore wrote:
>> Of course, *everyone* except you and Tom Donaly are talking about
>> charge stored over a whole cycle.
>
> Bull.

If that's what you think and you can find someone to discuss
energy exchange within a cycle, be my guest. As far as I know,
Tom Donaly introduced the subject as a diversion.

> I don't read their responses that way.

I couldn't believe it either but after years of arguing with them,
it is apparent that many of the gurus here on r.r.a.a are simply
ignorant of the nature of standing waves.

I really expected them to shout, "April Fool, we have been pulling
your leg!" But, sad to say, they are serious about standing wave
current "flowing" into the bottom of the coil and out the top.
They apparently haven't read "Optics", by Hecht where he says:
"E(x,t) = 2Eo*sin(kx)*cos(wt) This is the equation for a standing
wave, as opposed to a traveling wave. Its profile does not move
through space. ... [The standing wave] phasor doesn't rotate at
all, and the resultant wave it represents doesn't progress through
space - its a standing wave." If standing waves of light don't move
through space, standing waves of RF don't move through a wire.

>I read their responses as saying
> that the current leaving or entering an end of an inductor includes a
> capacitive component and an inductive component. The capacitive current
> branches out of the coil to the surrounding space, and is what allows a
> measured difference in the currents passing through its two ends.

That is a secondary effect. The primary effect is the phasor addition
of the forward current and reflected current which you provided.

Compared to zero amps of standing wave current when the forward current
phasor and the reflected current phasor are 180 degrees out of phase,
just how much effect can capacitance have?
--
73, Cecil http://www.qsl.net/w5dxp

255. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 02:46:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <s6lYf.64134$Jd.62935@newssvr25.news.prodigy.net>
Source record: 61847

w8ji@akorn.net wrote:
> Cecil changes what other people write to suit his own needs. He changes
> what other people say, and then points out why the creatively edited
> text he invented is wrong. That's his debating style. Watch out for it!

Tom, do you or do you not believe that standing wave current flows
into the bottom of the coil and out the top? It's a simple yes/no
question. You have earlier stated that "current is current" and
that, in spite of the different equations for for the two currents,
standing wave current moves like traveling wave current in spite
of what Hecht had to say in "Optics".

"E(x,t) = 2*Eo*sin(kx)*cos(wt) This is the equation for a STANDING
or STATIONARY WAVE, as opposed to a traveling wave. Its profile does
not move through space; it is clearly not of the form Func(x +/- vt).
... [Standing wave phase] doesn't rotate at all, and the resultant
wave it represents doesn't progress through space - its a standing
wave."

If standing waves of light don't move through space, standing waves
of RF don't move through wires.

Time to stop the ad hominem attacks and address this technical issue.
--
73, Cecil http://www.qsl.net/w5dxp

256. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 02:52:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kblYf.64135$Jd.2793@newssvr25.news.prodigy.net>
Source record: 61848

Roy Lewallen wrote:
> Absolutely true. Cecil complains that people won't engage in a technical
> discussion with him. Many have tried, and all we get in response is
> evasion, misquotes, diversion, and brushing off of any evidence contrary
> to his preconceived notions.

Roy, I'll tell you the same thing I told W8JI. It's time to stop
the ad hominem attacks and discuss the technical issues.

You tried to use standing wave current, containing no phase, to
measure the delay through a coil. You have said previously that
standing wave current flows just like traveling wave current.
You said that in spite of what Hecht says in "Optics".

Hecht had to say in "Optics":

"E(x,t) = 2*Eo*sin(kx)*cos(wt) This is the equation for a STANDING
or STATIONARY WAVE, as opposed to a traveling wave. Its profile does
not move through space; it is clearly not of the form Func(x +/- vt).
... [Standing wave phase] doesn't rotate at all, and the resultant
wave it represents doesn't progress through space - its a standing
wave."

If standing wave light doesn't move through space, then standing wave
RF doesn't move through a wire. Do you disagree with Hecht?
--
73, Cecil http://www.qsl.net/w5dxp

257. Re: HDTV Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 03:02:08 UTC
From: Sum Ting Wong <sumtingwong@privacy.net>
Message-ID: <cco3321uisqnf59ppguml3o5bjqihoklb1@4ax.com>
Source record: 61849

On Tue, 04 Apr 2006 01:43:04 GMT, aRKay <REMOVEarkay@qsl.net> wrote:

>What is unique about the new HDTV antennas? We just picked up a new
>HDTV with a tuner and was advised to pickup a simple HDTV antenna to
>pick up the local digital broadcast. Any magic to these other the high
>gain claims on the boxes?
>
>Dick AA5VU

Marketing ploy like the "Color TV Antennas" in days of old.

S.T.W.

258. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 03:04:12 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <MmlYf.8229$4L1.7395@newssvr11.news.prodigy.com>
Source record: 61850

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> If it disappears, you've done something wrong.
>
>
> There is no phase information in standing wave phase, Tom.
> I can't find it, Gene fuller can't find it, Eugene Hecht
> can't find it, and James Clerk Maxwell can't find it.
>
> Any and all phase information in the standing wave phase
> disappears during superposing.
>
> Let me give you another example. Assume that we superpose
> one amp of DC current flowing in one direction and one
> amp of DC current flowing in the other direction. What
> does the superposed amplitude tell us about the amplitudes
> of the superposed currents? Nothing, except they were
> equal.

Your idea of phase is to compare amplitudes at two separate
places on the same wave and noting the time difference in
behavior. You're right, you get the same "phase" if you
do that to a standing wave in a lossles medium. You're not
right, however, in thinking that the phase difference between
two waves travelling in different directions down a transmission
line can never be known. But as I wrote before, that isn't what
you should be after. You should want to know the Beta*l of
the coil on your antenna so you'll know its electrical length.
And you can know it if it is true that you can model a coil
as a simple transmission line. That's a big if, but it's something
you should have thought of before you shot off your mouth.
73,
Tom Donaly, KA6RUH

259. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 03:10:50 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <_slYf.64140$Jd.21145@newssvr25.news.prodigy.net>
Source record: 61851

Tom Donaly wrote:
> You should want to know the Beta*l of
> the coil on your antenna so you'll know its electrical length.

The discussion is no longer about coils. It's clear that a
lot of posters don't understand the nature of standing waves.
If they don't understand standing waves in a transmission
line or on a wire, they cannot possibly understand standing
waves on a coil.
--
73, Cecil http://www.qsl.net/w5dxp

260. Re: HDTV Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 03:13:14 UTC
From: artie <artie.m@gNOSPAMmail.com>
Message-ID: <030420062013148840%artie.m@gNOSPAMmail.com>
Source record: 61853

In article
<REMOVEarkay-20B980.20430403042006@newsclstr02.news.prodigy.com>, aRKay
<REMOVEarkay@qsl.net> wrote:

> What is unique about the new HDTV antennas? We just picked up a new
> HDTV with a tuner and was advised to pickup a simple HDTV antenna to
> pick up the local digital broadcast. Any magic to these other the high
> gain claims on the boxes?
>
> Dick AA5VU

Last I looked, broadcast HDTV occupies the old UHF tv channels, so...

Rat Shack Model: U-75R, Catalog #: 15-2160 $25

it's a UHF antenna, nothing more, and that's all you need. I've put in
a few of these.

--
Namaste--

261. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 03:18:27 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <tMOdneNQ8YqKeazZnZ2dnUVZ_uudnZ2d@adelphia.com>
Source record: 61852

Cecil Moore wrote:
(snip)
> Compared to zero amps of standing wave current when the forward current
> phasor and the reflected current phasor are 180 degrees out of phase,
> just how much effect can capacitance have?

A standing wave voltage passes exactly as much (AC RMS) current
through a capacitance as a traveling wave voltage does. If there is
voltage at the ends of the coil, then there is capacitive current
driven by those voltages, regardless of whether the voltage is from a
single traveling wave or the superposition of two of them.

262. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 03:27:17 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144121237.437722.6580@t31g2000cwb.googlegroups.com>
Source record: 61854

Cecil wrote, "It's time to stop
the ad hominem attacks and discuss the technical issues."

Ready when you are, lad. Suggest you start by establishing just how it is that an antenna wire supports waves. Gauss's theorem and Faraday's law may come in handy. Please don't spare anything.

The reason you need to do this for me to even begin to believe you have any idea what you are talking about is that you have rejected out of hand some very fundamental concepts that I've put numbers on for you. You ask for something, and then you reject the answer but give no valid reason why. I've tried to give you a way to SUPPORT what you are saying, and you can't even recognize that, apparently.

Now YOU go back to the real fundamentals and give it to us straight, with full math treatment. Until you do, as far as I'm concerned, you don't have a leg to stand on. If you can do a credible job starting with Maxwell's equations, I might begin to believe you have some understanding of the subject. And I don't want it parroted from someone else's writing, I want it done from the ground up by you.

If you have some trouble doing that with an antenna wire, just try it with an ideal coaxial TEM line. It's easy there; I've done it out of idle curiosity one evening, and it was quite enlightening to see how nicely it all agreed with what I already knew about propagation along a line.

Lay it on us, Cecil. Start with the fundamentals. And don't be dragging out that tired old travelling-waves/standing-waves stuff till you've established that you actually can even have waves, and just what it is that governs their behaviour.

Cheers,
Tom

263. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 03:47:55 UTC
From: richardharrison@webtv.net
Message-ID: <11762-4431EC6B-1061@storefull-3252.bay.webtv.net>
Source record: 61855

Tom Donaly, KA6RUH wrote:
""---first you have to find out what phase means in a standing wave transmission line."

Cecil knows very well what phase means in a transmission line. Terman describes it best for me, but it would be best to have his book with all his diagrams which makes his explanation of how standing waves are established simple indeed.

Terman writes on page 89 of his 1955 edition:
"Transmission line with Open-Circuited Load."
(This is related to the standing-wave antenna which also ends up with an open-circuit load.)
"When the load impedance is infinite, Eq.(4-14)
(This gives the reflection coefficient rho as the vector ratio of the reflected wave to the incident wave at the load) shows that the coefficient of reflecftion will be 1 on an angle of zero. Under these conditions the incident and reflected waves (voltages) will have the same phase. As a result, the voltages of the two waves add arithmetically so that at the load E1 = E2 = EL/2. (Voltage doubles at the open circuit.)

Under these conditions it follows from Eqs. (4-8)
(Eforward/Iforward=Zo) and (4-11)
(Ereflected / Ireflected=-Zo) that the currents of the two waves are equal in magnitude but opposite in phase; they thus add up to zero load current, as must be the case if the load is open-circuited.

Consider now how these two waves behave as the distance l from the load increases. The incident wave advances in phase beta radians per unit length, while the reflected wave lags correspondingly; at the same time magnitudes do not change greatly when the attenuation-constant alpha is small. The vector sum of the voltages of the two waves is less than the arithmetic sum, as illustrated in Fig. 4-3a, for l=lambda/8. This tendency continues until the distance to the load becomes exactly a quarter wavelength, i.e.,until beta l = pi/2. The incident wave has then advanced 90-degrees from its phase position at the load, while the reflected wave has dropped back a similar amount. The line voltage at this point is thus the arithmertic difference of the voltages of the two waves, as shown in Fig. 4-3a, for l=lambda/4 and it will be quite small if the attenuation is small. The resultant voltage will not be zero, however, because some attenuation will always be present, and this causes the incident wave to be larger and the reflected wave to be smaller at the quarter-wave length point than at the load, where the amplitudes are exactly the same."

This is enough of Terman`s desctiption to establish the pattern of SWR.
He describes simply but not too simply. Almost anything anyone would
want to know is in the book. The illustrations are worth thousands of
words.
Anytime I have any doubt about radio, Terman can straighten me out.

Best regards, Richard Harrison, KB5WZI

264. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 04:41:26 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <WNmYf.55238$F_3.51913@newssvr29.news.prodigy.net>
Source record: 61856

John Popelish wrote:
> Cecil Moore wrote:
>> Compared to zero amps of standing wave current when the forward current
>> phasor and the reflected current phasor are 180 degrees out of phase,
>> just how much effect can capacitance have?
>
> A standing wave voltage passes exactly as much (AC RMS) current through
> a capacitance as a traveling wave voltage does.

But the two waves are different as can be seen from their
equations. A traveling wave transfers net energy along a
transmission line or antenna wire. A standing wave transfers
zero net energy along a transmission line or antenna wire.

From "Fields and Waves in Modern Radio", by Ramo & Whinnery,
2nd edition, page 43: "The total energy in any length of line
a multiple of a quarterwavelength long is constant, merely
interchanging between energy in the electric field of the
voltages and energy in the magnetic field of the currents."

Hecht says it best in "Optics" concerning standing waves:

"The composite disturbance is then:

E = Eo[sin(kx+wt) + sin(kx-wt)]

Applying the identity:

sin A + sin B = 2 sin 1/2(A+B)*cos 1/2(A-B)

yields:

E(x,t) = 2*Eo*sin(kx)*cos(wt)"

"This is the equation for a STANDING or STATIONARY WAVE, as opposed
to a traveling wave. Its profile does not move through space; it is
clearly not of the form Func(x +/- vt)."

[Standing wave phase] "doesn't rotate at all, and the resultant
wave it represents doesn't progress through space - its a standing
wave."

Speaking of "... net transfer of energy, for the pure standing
wave there is none."
--
73, Cecil http://www.qsl.net/w5dxp

265. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 04:47:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <2UmYf.55240$F_3.33995@newssvr29.news.prodigy.net>
Source record: 61857

K7ITM wrote:
> The reason you need to do this for me to even begin to believe you have
> any idea what you are talking about is that you have rejected out of
> hand some very fundamental concepts that I've put numbers on for you.

I've rejected your obvious attempts at logical diversions.

> Lay it on us, Cecil. Start with the fundamentals. And don't be
> dragging out that tired old travelling-waves/standing-waves stuff till
> you've established that you actually can even have waves, and just what
> it is that governs their behaviour.

:-) Just one more attempt at a logical diversion.

I think we can all assume that EM waves exist and are
capable of propagating along a transmission line, or
antenna wire, or even in free space, e.g. light.

What we cannot assume is that standing waves move
or progress through space (or wire). Eugene Hecht
says they don't.
--
73, Cecil http://www.qsl.net/w5dxp

266. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 06:15:28 UTC
From: nm5k@wt.net
Message-ID: <1144131328.322721.32520@t31g2000cwb.googlegroups.com>
Source record: 61858

>but we can not
>use electrical degrees to 'splain the behavior of coiled antenna wire?

I can see how problems could arise going by the length of coil
wire length in degrees only. Lets say you run a coil 1 foot from the
base. Lets say that coil uses 25 turns to tune a particular frequency.
Now, move the coil up 2 ft higher, and see if that same 25 turns will
tune the same frequency. It won't. You will have to add a few more
turns.
So just going by the total mast plus coil wire length in degrees could
vary
all over the map just by changing the position of the coil. As you
raise
the coil, you will have to add more and more of "degrees" of wire to
tune the same frequency. :/
Dunno...There may well be some variation of current from the bottom
vs the top of the coil, but overall, I still view the operation of a
loading
coil as a "lumped" mechanism overall.
Even if you all decide that the current changes, or it doesn't , it
ain't
gonna make a hoot's worth of difference in the design of mobile whips.
I think it's an argument that has no real value to me as far as mobile
whips go. The performance of all the various coil heights, and configs
have been well known for years. Coil current taper or not.
I just don't see the facination with arguing about something that even
if
decided one way or the other, still won't make any difference in the
final
antenna design. Oh well...Continue the tail chasing excercise....
I'm outa this one... One post is all I will waste on this subject..
I couldn't mount my coil much higher if I wanted to... Current taper or
not. :/
MK

267. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 06:15:33 UTC
From: AC7PN <brunius@rockisland.com>
Message-ID: <1144131333.335354.304620@v46g2000cwv.googlegroups.com>
Source record: 61859

>Yeah, my MFJ 993B does the same thing, but the coax losses will KILL your
>signal!

What, are you using 300ft of RG58?
--

268. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 06:40:59 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <%xoYf.8255$4L1.5002@newssvr11.news.prodigy.com>
Source record: 61860

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> You should want to know the Beta*l of
>> the coil on your antenna so you'll know its electrical length.
>
>
> The discussion is no longer about coils. It's clear that a
> lot of posters don't understand the nature of standing waves.
> If they don't understand standing waves in a transmission
> line or on a wire, they cannot possibly understand standing
> waves on a coil.

Well, Cecil, you've certainly shown your knowledge is weak in
this area. You can improve the general knowledge by being the
first to crack the books.
73,
Tom Donaly, KA6RUH

269. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 06:59:26 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <iPoYf.61885$H71.20875@newssvr13.news.prodigy.com>
Source record: 61861

Cecil Moore wrote:

> John Popelish wrote:
>
>> Cecil Moore wrote:
>>
>>> Compared to zero amps of standing wave current when the forward current
>>> phasor and the reflected current phasor are 180 degrees out of phase,
>>> just how much effect can capacitance have?
>>
>>
>> A standing wave voltage passes exactly as much (AC RMS) current
>> through a capacitance as a traveling wave voltage does.
>
>
> But the two waves are different as can be seen from their
> equations. A traveling wave transfers net energy along a
> transmission line or antenna wire. A standing wave transfers
> zero net energy along a transmission line or antenna wire.
>
> From "Fields and Waves in Modern Radio", by Ramo & Whinnery,
> 2nd edition, page 43: "The total energy in any length of line
> a multiple of a quarterwavelength long is constant, merely
> interchanging between energy in the electric field of the
> voltages and energy in the magnetic field of the currents."
>
> Hecht says it best in "Optics" concerning standing waves:
>
> "The composite disturbance is then:
>
> E = Eo[sin(kx+wt) + sin(kx-wt)]
>
> Applying the identity:
>
> sin A + sin B = 2 sin 1/2(A+B)*cos 1/2(A-B)
>
> yields:
>
> E(x,t) = 2*Eo*sin(kx)*cos(wt)"
>
> "This is the equation for a STANDING or STATIONARY WAVE, as opposed
> to a traveling wave. Its profile does not move through space; it is
> clearly not of the form Func(x +/- vt)."
>

> [Standing wave phase] "doesn't rotate at all, and the resultant
> wave it represents doesn't progress through space - its a standing
> wave."
>
> Speaking of "... net transfer of energy, for the pure standing
> wave there is none."

Cecil, how can you quote Hecht when you don't have the foggiest notion
what he's talking about?
Here's a more general equation for you Cecil:
(A1-A2)*Cos(wt-kx) + 2*A2*Cos(kx+d/2)*Cos(wt+d/2). Do you have
any idea what it should represent? Does it satisfy the wave equation?
Does it represent anything real? Sit and think about it before you
get hysterical.
73,
Tom Donaly, KA6RUH

270. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 08:06:56 UTC
From: w8ji@akorn.net
Message-ID: <1144138016.208612.21220@i39g2000cwa.googlegroups.com>
Source record: 61862

Cecil Moore wrote:
> Time to stop the ad hominem attacks and address this technical issue.
> --
> 73, Cecil http://www.qsl.net/w5dxp

I'm glad to hear that.

When you show a track record of being honest and you stop those attacks and your constant distortions of what other people say, I'm sure people will start talking to you again.

73 Tom

271. Re: paint antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 12:08:26 UTC
From: Silfax <Silfax@localhost.localdomain>
Message-ID: <slrne34odq.465.Silfax@minimac.linux1.lan>
Source record: 61863

```
>> Dave WD9BDZ
>
> the bricks have been recently waterproffed, thou i guess they will still
> be soggy after a strong rain guess i'd just have to add a small amount
> of paint, and keep painting till swr etc are where it need to be to make
> resonant if it even works
>
> sounds like a fun experiment can't wait to snag some paint

If you paint a yagi on the roof, how do you intend on rotating the building?
```

272. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 12:27:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pCtYf.61917$H71.23294@newssvr13.news.prodigy.com>
Source record: 61864

nm5k@wt.net wrote:
> I just don't see the facination with arguing about something that even
> if
> decided one way or the other, still won't make any difference in the
> final
> antenna design.

The sun still rises every morning whether it is caused by
the earth's rotation or by the Sun God riding his chariot
across the sky. The facination is called technical correctness.
--
73, Cecil http://www.qsl.net/w5dxp

273. Re: Coils and Transmission Lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 12:36:30 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <iLtYf.61918$H71.59177@newssvr13.news.prodigy.com>
Source record: 61865

Tom Donaly wrote:

> Cecil Moore wrote:
>> The discussion is no longer about coils. It's clear that a
>> lot of posters don't understand the nature of standing waves.
>> If they don't understand standing waves in a transmission
>> line or on a wire, they cannot possibly understand standing
>> waves on a coil.
>
> Well, Cecil, you've certainly shown your knowledge is weak in
> this area. You can improve the general knowledge by being the
> first to crack the books.

The nature of standing waves is not a difficult subject. Some
people have a single particular misconception about standing
waves that have lead them to technically incorrect conclusions
about standing wave antennas. In fact, before I brought up the
subject, it appeared they didn't even realize that a mobile
antenna is a standing wave antenna.

Given a lossless, unterminated transmission line, with two black
boxes located at points along the line.

Source----------a-BBox-b-------------c-BBox-d----------open

The current at 'a' is one amp and the current at 'b' is zero

The current at 'c' is zero and the current at 'd' is one amp

What's in the black boxes?
--
73, Cecil http://www.qsl.net/w5dxp

274. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 12:36:35 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <44326790_1@newsfeed.slurp.net>
Source record: 61866

"Richard Harrison" wrote:
> It is the convention to describe AM broadcast towers in electrical
> degrees. Harold Ennes reprints an RCA resistance chart for heights
> between 50 and 200 degrees in "AM-FM Broadcast Maintenance".
>
> Formula given is:
> Height in electrical degrees = Height in feet X frequency in kc X
> 1.016 X 10 to the minus 6 power.

If electrical length is defined as the physical condition where feedpoint reactance is zero (e.g., resonance), then the true electrical length of an AM broadcast radiator on a given frequency is a function of the physical length AND physical width of that radiator. This was proven experimentally, and documented by George Brown of RCA Labs in his paper "Experimentally Determined Impedance Characteristics of Cylindrical Antennas" published in the Proceedings of the I.R.E. in April, 1945. It also has been proven in thousands of independent measurements of AM broadcast radiators ever since.

The curves in Figure 3 of Brown's paper show the feedpoint reactance terms of the base impedance of an unloaded monopole of various lengths and widths, working against a nearly perfect ground plane. Those values cross the zero reactance axis at physical heights ranging from about 80 degrees (for the widest radiator) to about 86 degrees for the most narrow.

Brown calculated height in degrees as (Physical Height in feet x Frequency in kHz) / 2725 . Brown's equation, the one in the Harold Ennes quote above, and the one that the FCC uses in their published data all define only the relationship of the physical length of the radiator to its free-space wavelength in degrees at that frequency.

But clearly these lengths in degrees do not define the self-resonant length of that radiator. The self-resonant length, invariably, will be shorter by several percent. This fact is easily confirmed by simple NEC models, for those who want to probe into George Brown's data.

Tables relating a single value of base impedance as typical for towers of various electrical heights (only) must be read with an understanding of the above realities. For example, Ennes' list shows a tower of 90 electrical degrees to have zero reactance. But Brown's 1945 paper and a great amount of later field experience shows that this is incorrect, for the conventional use of this term.

RF

275. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 12:50:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pYtYf.61931$H71.59347@newssvr13.news.prodigy.com>
Source record: 61867

w8ji@akorn.net wrote:

> Cecil Moore wrote:
>>Time to stop the ad hominem attacks and address this technical issue.
>
> When you show a track record of being honest and you stop those attacks
> and your constant distortions of what other people say, I'm sure people
> will start talking to you again.

So by demonizing me, you avoid any technical discussion that
might prove you wrong. That's pretty transparently obvious, Tom.
--
73, Cecil http://www.qsl.net/w5dxp

276. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 13:23:13 UTC
From: Howard W3CQH <hgorden@adelphia.net>
Message-ID: <TJmdnUUNpMKj7q_ZRVn-rw@adelphia.com>
Source record: 61868

No, I am using 360' of #12 jacketed for the loop, and approx 70' or so of
RG58u for the feed line.

73's

"AC7PN" <brunius@rockisland.com> wrote in message
news:1144131333.335354.304620@v46g2000cwv.googlegroups.com...
> >Yeah, my MFJ 993B does the same thing, but the coax losses will KILL your
>>signal!
>
>
>
> What, are you using 300ft of RG58?
> --
>

277. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 13:44:03 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <DKuYf.66423$dW3.9292@newssvr21.news.prodigy.com>
Source record: 61869

Tom Donaly wrote:
> Here's a more general equation for you Cecil:
> (A1-A2)*Cos(wt-kx) + 2*A2*Cos(kx+d/2)*Cos(wt+d/2).

Yes, it is more general, Tom, but since the subject is standing waves and not traveling waves, it is overly general. Why would you post an equation containing a traveling wave term when the subject is the equation for standing waves?

This is the total equation for the condition where power is being delivered to a load in the presence of standing waves. The first term makes it to the load. The second term doesn't.

The first term is a traveling wave and indeed does contain phase information. There's no argument about whether a traveling wave contains phase information.

The argument is whether the second term, the standing wave term, contains phase information. Gene Fuller says it doesn't, Eugene Hecht says it doesn't, and I'm inclined to agree.
--
73, Cecil http://www.qsl.net/w5dxp

278. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 13:47:04 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sNuYf.66425$dW3.19221@newssvr21.news.prodigy.com>
Source record: 61870

w8ji@akorn.net wrote:
> When you show a track record of being honest and you stop those attacks
> and your constant distortions of what other people say, I'm sure people
> will start talking to you again.

Of course, you never attack anyone. Pot, Kettle - Kettle, Pot. Here's
a smattering of what you have said to me during the past month:

W8JI wrote:
>
> 3/5/06 "Cecil, You are a horse's ass."
>
> 3/10/06 "If you weren't so pig-headed ... Until you stop, put the beer away,..."
>
> 3/11/06 "I'm also a victim of Cecil's twicted reality now."
>
> 3/11/06 "It would be comical to watch Cecil twist reality if it wasn't sad."
>
> 3/11/06 "Cecil's normal tactic is to change what other people say."
>
> 3/27/06 "how much will you pay me for putting up with you?"
>
> 3/27/06 "I feel sorry for anyone who has to deal with you on a daily basis.
> No wonder your wife split."
--
73, Cecil http://www.qsl.net/w5dxp

279. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 13:52:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zSuYf.66426$dW3.32081@newssvr21.news.prodigy.com>
Source record: 61871

Richard Fry wrote:
> But clearly these lengths in degrees do not define the self-resonant
> length of that radiator.

Could it be that the resonant 80 degrees of physical length
is 90 degrees of electrical length?
--
73, Cecil http://www.qsl.net/w5dxp

280. Re: HDTV Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 14:23:38 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <e0tvhc$95u$1@news.netins.net>
Source record: 61872

Dick,

Since the vast majority of HDTV channels are on UHF, make sure that you have good UHF performance. If using an outside antenna, and you do other OTA viewing, you might as well get a good one that covers VHF/UHF. I particularly like the Channel Master antennas with boom lengths anywhere from 6 to 10 feet. In most cases there is no such thing as too much signal. Of course, if you are really close to the transmit towers, you can get exactly that. As far as a "simple" antenna...you may find that you have multi-path problems with them. Lots of variables to consider, but none of them have anything in particular to do with HDTV <grin>.

Your best bet is to go to the antennaweb site, plug in your zip code or location and see what antenna they recommend. This site is used by a lot of HDTV enthusiasts.

www.antennaweb.org

73,

...hasan, N0AN

"aRKay" <REMOVEarkay@qsl.net> wrote in message
news:REMOVEarkay-20B980.20430403042006@newsclstr02.news.prodigy.com...
> What is unique about the new HDTV antennas? We just picked up a new
> HDTV with a tuner and was advised to pickup a simple HDTV antenna to
> pick up the local digital broadcast. Any magic to these other the high
> gain claims on the boxes?
>
> Dick AA5VU

281. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 14:32:08 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <QrvYf.22$pp3.21@fe08.lga>
Source record: 61873

<nm5k@wt.net> wrote in message
news:1144131328.322721.32520@t31g2000cwb.googlegroups.com...
> >but we can not
>>use electrical degrees to 'splain the behavior of coiled antenna wire?
>
> I can see how problems could arise going by the length of coil
> wire length in degrees only. Lets say you run a coil 1 foot from the
> base. Lets say that coil uses 25 turns to tune a particular frequency.
> Now, move the coil up 2 ft higher, and see if that same 25 turns will
> tune the same frequency. It won't. You will have to add a few more
> turns.
> So just going by the total mast plus coil wire length in degrees could
> vary
> all over the map just by changing the position of the coil. As you
> raise
> the coil, you will have to add more and more of "degrees" of wire to
> tune the same frequency. :/
> Dunno...There may well be some variation of current from the bottom
> vs the top of the coil, but overall, I still view the operation of a
> loading
> coil as a "lumped" mechanism overall.
> Even if you all decide that the current changes, or it doesn't , it
> ain't
> gonna make a hoot's worth of difference in the design of mobile whips.
> I think it's an argument that has no real value to me as far as mobile
> whips go. The performance of all the various coil heights, and configs
> have been well known for years. Coil current taper or not.
> I just don't see the facination with arguing about something that even
> if
> decided one way or the other, still won't make any difference in the
> final
> antenna design. Oh well...Continue the tail chasing excercise....
> I'm outa this one... One post is all I will waste on this subject..
> I couldn't mount my coil much higher if I wanted to... Current taper or
> not. :/
> MK
>

MK, that is the whole point, that you portray missing or not appreciating.
It might not matter to you if you lose $100, but it might matter to someone
else. Same with loading coil. What you are describing, the effect where the
coil is located, being known, is the result of the phenomena we are trying
to straighten out, explain and apply properly in modeling and design
exercises.

The position of coil within the antenna has significant effect. The worst is at the base, fewer turns required. The best is somewhere about 2/3 up the radiator, more turns required. You stick it on the top, no stinger or hat, you get it almost invisible. With what we are discussing and defending here is the proper understanding of the current flow in the loading coil and its drop across and its effect on the efficiency of the loaded antenna. Efficiency is proportional to the area under the current curve distribution along the radiator. If you properly model the coil as solenoid or loading stub to see the real drop of current across the coil and its effect in various positions along the radiator, the all is clear and is with agreement with practical experience, antenna shootout results, measurements.
As I mentioned numerous times, its effect on design and modeling loaded antenna systems will be even more pronounced, because effect gets magnified when you start adding elements. This is especially important when you try to design super receiving antennas for low bands where F/B and clean pattern is very desirable and is the most critical aspect of antenna design or modeling. It is harder to obtain the max F/B or least rear lobes than to maximize the design for max gain.
It might not matter to you, but I am sure many would benefit from knowing more precisely what is REALLY going on and then use or correct their design methodology.
I think it is fine for you to ignore this and poh-poh it. But I know how huge difference it made in my 160m mobile antenna when I extended the whip to the front bumper with wire.
We are not saying that piece of wire that coil is wound with, has so many electrical degrees. If we carefully consider and understand the phenomena, you would realize that the radiator has same electrical length (say 15 deg) and when you move the coil and ADJUST THE TURNS to bring the antenna back to resonance (90 deg) that coil would "replace, take care of" 75 degrees. The turns have to be adjusted in order to "participate" in the current replacement game. The lesson is, the higher you place the coil on the radiator, the more turns you need to reresonate the radiator, the high current portion of the antenna current distribution curve gets "stretched up", better efficiency (larger area under the overall curve). Then the coil DROPS the current across itself to some lower value, which then continues to drop across the tip and that area, quite smaller adds to the one from the bottom part of the radiator.
This all is supported by reality, except "gurus" who insist that the current is (about) the same across the coil and they make (theoretically) antenna current to be higher across the tip and "more" efficient than it is. Again, you stick 6 of those in the 3 el loaded Yagi design and you get GI-GO.

It is known how profound effect had replacement of loading stubs by coils in the KLM 3 el. 80 m loaded Yagi. Better gain, huge improvement in the F/B and pattern. Has been done and described. And this is just replacing the same inductance value stub with coil, where delta current from stub wires was enough to throw monkey wrench in the Yagi performance. Now consider larger error from the wrong assumption or calculation caused by wrong current magnitudes and distribution.

Again you might not give a hoot about this "trivial" exercise, but if I want to design 4 el loaded quad or Yagi for 80 or 160, it matters a lot.

So it just amazes me that some of the smarter heads resist so much in trying to find out reality and develop better consideration of the effect for design and modeling. No technical answers to Cecil's questions and my "from scratch" thread deteriorated into pink electrons and dead end in electrical degrees.

So far what we have is the reality, few who are trying to legitimize it and few who got off on the wrong foot, in effort to preserve their (wrong) face they cling to it with scientwific "proofs" why it can't be so, when IT IS. When I tried to go step by technical step through the case, the "gurus" are not there. Cases that Cecil showed in EZNEC model and demonstrating that current across the loading coil (not one in the box) in the antenna can have anything from equal to "nothing" at the other end, depending on its position in the standing wave picture. It all jives with our original argument. We spotted the "problem", we dissected it, thanks to fierce flat earthers, and now have better understanding of the phenomena and can use to design better antennas.
I care about antennas, this is the last frontier where we can still improve thing, now with modeling tools. I still operate contests and go for ultimate - beating the all time records, and that's where the edge can be obtained.

Heloooo guys!
Measure, feel, whatever, the frickin' current across the loading coil and then come back and tell the world why it IS different, but IT CAN'T be so, because you said so in the beginning and you just can't admit being wrong. Reality can't be twisted, just like Earth is not going back to flat!
Saying now that is no big deal, not important, will not exonerate the "wrongoes". It is significant not to be ignored. If I was in "their" shoes, I would say: "gee guys, interesting, thanks for bringing it up, explaining it, I guess we were wrong, now we can design better antennas". Stay tuned.....

Thanks again Cecil, Richard and others for putting up with and shedding more and more light on the phenomena. It must go down in history as big as Galileo's fight :-) I am glad that, hopefully, nobody will burn us.

73 Yuri, K3BU.us

282. Phase shift and translines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 15:00:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <c62dnTMb7N37F6_ZnZ2dnUVZ8s-dnZ2d@bt.com>
Source record: 61874

The phase shift in degrees along a transmission line is a very fixed quantity. Regardless of how it is used or what sort of circuit it is in.

The only way to change it is to change line length or frequency.

Reg.

283. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 15:55:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1k5532h8scbtg8e8iscn4ncjuusoa7ddai@4ax.com>
Source record: 61875

On Tue, 4 Apr 2006 10:32:08 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>Now consider larger
>error from the wrong assumption or calculation caused by wrong current
>magnitudes and distribution.

Hi Yuri,

Why is it that you can say this so often, and yet never put a number
to it?

What is the error? You also speak of efficiency. What is the
efficiency?

Very simple questions. Technically based. Selected because they seem
to be of supreme importance to you, and yet you don't seem to have a
handle on the situation.

73's
Richard Clark, KB7QHC

284. Re: Adjusting a colinear antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 15:59:34 UTC
From: Jim <jbollit@verizon.net>
Message-ID: <GJwYf.15627$Up2.14410@trnddc07>
Source record: 61626

Tucker,

Thanks, I found that you have to get it up in the air also for it to work.
It does wokr better than a 1/4 wave antenna.

Jim
<tucker@conninc.com> wrote in message
news:1144114540.224804.69900@u72g2000cwu.googlegroups.com...
> Hello Jim I built a 910mhz coax antenna using 6 - 1/2 wave elements,
> 1/4 wave on bottom and the top. I used 3/8" copper hardline
> instead of coax i had to tried to adjust for a faster .88 VP but found
> using the same length as required for RG58 worked just as well.
> Initally i did not put the antenna up because at ground level it did
> not work very well on recieve, i was going to throw it out but desided
> to put it up anyway. It really made a big difference once it was in
> the air @ 25', it works much better than a Sinclair commercial omni i
> had been using,
>

285. Re: HDTV Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 16:01:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1u55329agrpiremn6o4dgqjgbia9u48usj@4ax.com>
Source record: 61627

On Tue, 4 Apr 2006 09:23:38 -0500, "hasan schiers"
<schiers@netins.net> wrote:

>In most cases there is no such thing as too much signal.

Hi Hasan,

In fact that is wrong. Too much signal can black out the picture.

On the other hand, that is about as likely to happen as the borrow and
spend Republicans delivering a balanced budget.

73's
Richard Clark, KB7QHC

286. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 16:20:31 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <44329c0a_2@newsfeed.slurp.net>
Source record: 61629

"Cecil Moore" wrote ...
> Richard Fry wrote:
>> But clearly these lengths in degrees do not define the self-resonant
>> length of that radiator.
>
> Could it be that the resonant 80 degrees of physical length
> is 90 degrees of electrical length?

That a self-resonant, unloaded broadcast radiator length is shorter than the 90 degree conventional "electrical length" defined by the FCC is a given. But this reality sometimes is not recognized.

RF

287. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 16:21:37 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <M-ednYz9rJE4Bq_ZnZ2dnUVZ_sCdnZ2d@adelphia.com>
Source record: 61628

Cecil Moore wrote:
> John Popelish wrote:
>
>> Cecil Moore wrote:
>>
>>> Compared to zero amps of standing wave current when the forward current
>>> phasor and the reflected current phasor are 180 degrees out of phase,
>>> just how much effect can capacitance have?
>>
>>
>> A standing wave voltage passes exactly as much (AC RMS) current
>> through a capacitance as a traveling wave voltage does.
>
>
> But the two waves are different as can be seen from their
> equations.

That difference is a difference in the pattern (distribution) of voltage and current along the line, as well as a possible difference in amplitude and phase at any given point. But at any point that is not a node in the standing wave pattern, there will be an ordinary AC voltage or current at some amplitude between double the traveling wave amplitude and zero amplitude, and one of two phases (that switch each time you pass a node).

> A traveling wave transfers net energy along a
> transmission line or antenna wire. A standing wave transfers
> zero net energy along a transmission line or antenna wire.

No argument. But a standing wave still represents storage of energy in the line, as with any resonant structure, and that stored energy shows up as magnetic fields and electric fields along the line. The big difference is that the magnetic fields bob up and down at some areas and the electric fields bob up and down half way in between those areas. At any given moment, there is a fixed total energy in the combination of all the magnetic and electric fields.

In the areas where the electric field is bobbing up and down, there must be capacitive current caused by that variation in electric field.

> From "Fields and Waves in Modern Radio", by Ramo & Whinnery,
> 2nd edition, page 43: "The total energy in any length of line
> a multiple of a quarterwavelength long is constant, merely
> interchanging between energy in the electric field of the
> voltages and energy in the magnetic field of the currents."

Exactly. How can you write this, but deny the capacitive current that delivers this electric field energy twice every cycle to all capacitance feeling this voltage swing?

> Hecht says it best in "Optics" concerning standing waves:
>
> "The composite disturbance is then:
>
> E = Eo[sin(kx+wt) + sin(kx-wt)]
>
> Applying the identity:
>
> sin A + sin B = 2 sin 1/2(A+B)*cos 1/2(A-B)
>
> yields:
>
> E(x,t) = 2*Eo*sin(kx)*cos(wt)"

cos(wt) is the AC swing that drives the capacitive current. sin(kx) is the positional variation of that AC voltage along the line. I have absolutely no argument with the expression, only with your understanding of what it says.

>
> "This is the equation for a STANDING or STATIONARY WAVE, as opposed
> to a traveling wave. Its profile does not move through space; it is
> clearly not of the form Func(x +/- vt)."

Profiles do not charge capacitance, instantaneous rate of change of voltage drives current through capacitance. cos(wt) describes a sinusoidal variation of voltage over time (you couldn't have an RMS value of voltage at a point or an RMS value of current past a point, without it.

>
> [Standing wave phase] "doesn't rotate at all, and the resultant
> wave it represents doesn't progress through space - its a standing
> wave."

I suggest you drop talking about phasors, till you understand what cos(wt).

> Speaking of "... net transfer of energy, for the pure standing
> wave there is none."

But it does represent net storage of energy. The total stored energy is the sum of energies in the two traveling waves over the length. A standing wave does not violate conservation of energy.

Storage that must continuously be swapping back and forth from magnetic field energy to electric field energy. When the energy storage is all electric, that implies charges capacitance.

Don't give up, the light may be just about to come on.

288. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 16:38:48 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <sixYf.64340$Jd.17627@newssvr25.news.prodigy.net>
Source record: 61630

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Here's a more general equation for you Cecil:
>> (A1-A2)*Cos(wt-kx) + 2*A2*Cos(kx+d/2)*Cos(wt+d/2).
>
>
> Yes, it is more general, Tom, but since the subject is standing
> waves and not traveling waves, it is overly general. Why would
> you post an equation containing a traveling wave term when the
> subject is the equation for standing waves?
>
> This is the total equation for the condition where power is
> being delivered to a load in the presence of standing waves.
> The first term makes it to the load. The second term doesn't.
>
> The first term is a traveling wave and indeed does contain
> phase information. There's no argument about whether a
> traveling wave contains phase information.
>
> The argument is whether the second term, the standing wave
> term, contains phase information. Gene Fuller says it doesn't,
> Eugene Hecht says it doesn't, and I'm inclined to agree.

Cecil, I won't try to educate you because it's a waste of time, but
for everyone else, consider that in an antenna, there is
energy going into, and being radiated out of, the antenna in the
form of an electromagnetic wave. Since Cecil says standing waves
can't transfer energy from one place to another (he didn't always
say this) that means that the only way energy can be radiated is
through the traveling wave component of the electromagnetic wave.
You would think that this would be important to him in his search
for a dumbed down theory of reflection mechanics, but evidently
he is more interested in his arguing point concerning Tom R. and
Roy measuring current in a standing wave environment than he is in
reaching an understanding of what he's talking about. No wonder
no one's communicating with him.
73,
Tom Donaly, KA6RUH

289. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 16:42:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <AlxYf.11578$tN3.7572@newssvr27.news.prodigy.net>
Source record: 61632

John Popelish wrote:
> But at any point that is not a
> node in the standing wave pattern, there will be an ordinary AC voltage
> or current at some amplitude between double the traveling wave amplitude
> and zero amplitude, and one of two phases (that switch each time you
> pass a node).

Please give us the equation for "ordinary AC voltage or current".

> No argument. But a standing wave still represents storage of energy in
> the line, as with any resonant structure, and that stored energy shows
> up as magnetic fields and electric fields along the line. The big
> difference is that the magnetic fields bob up and down at some areas and
> the electric fields bob up and down half way in between those areas. At
> any given moment, there is a fixed total energy in the combination of
> all the magnetic and electric fields.

No argument, and therefore no need for the "But" in your statement.
I agree with you but it doesn't change a thing about the real
argument.

> Exactly. How can you write this, but deny the capacitive current that
> delivers this electric field energy twice every cycle to all capacitance
> feeling this voltage swing?

I don't deny it - never have - never will. Please stop trying
to set up straw men. The discussion has *NEVER* be about what
happens during one cycle. The current measured by W8JI and W7EL
and reported by EZNEC is RMS current. Instantaneous values are
just another straw man diversion.

> Profiles do not charge capacitance, ...

I'm glad you agree. Profiles are maximum RMS envelope values
and that is what EZNEC reports.

>> [Standing wave phase] "doesn't rotate at all, and the resultant
>> wave it represents doesn't progress through space - its a standing
>> wave."
>
> I suggest you drop talking about phasors, till you understand what cos(wt).

Hecht and I have been a little lose with words while assuming
the readers have a certain knowledge level. For the uninitiated,
When Hecht (or I) say the phasor doesn't rotate at all, we
mean the phasor doesn't rotate at all with respect to the
source phasor. Any initiated person would know that. The phase

of the standing waves doesn't change with respect to the phase
of the source signal. Hecht assumed you would know what he meant
by that statement.

>> Speaking of "... net transfer of energy, for the pure standing
>> wave there is none."
>
> A standing wave does not violate conservation of energy.

Exactly my point! Nothing violates conservation of energy. If
the RMS forward current in the coil is the same magnitude at
both ends and the RMS reflected current in the coil is the
same at both ends, the conservation of energy principle is
satisfied NO MATTER WHAT THE STANDING WAVE CURRENT TURNS
OUT TO BE. What is it about that statement that you don't
understand?

> Storage that must continuously be swapping back and forth from magnetic
> field energy to electric field energy. When the energy storage is all
> electric, that implies charges capacitance.

Again, nobody has ever been discussing what happens within a
partial cycle. Discussion of such is obviously a diversionary
straw man. Feel free to find someone else willing to discuss it.
It is completely irrelevant to this discussion of RMS envelope
values.
--
73, Cecil http://www.qsl.net/w5dxp

290. Re: Phase shift and translines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 16:45:43 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <ZYSdnfAPpJzXPK_ZRVn-jw@adelphia.com>
Source record: 61631

Reg Edwards wrote:
> The phase shift in degrees along a transmission line is a very fixed
> quantity. Regardless of how it is used or what sort of circuit it is
> in.
>
> The only way to change it is to change line length or frequency.

(continuing on)

This is the property that allows us to distinguish whether a black box contains a length of transmission line or an approximation of that made of lumped series inductors and shunt capacitors. The approximation will mimic a transmission line, only if the impedances driving and loading it are in a range, and only over some frequency range. The approximation of a transmission line is good, only under some conditions.

291. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 16:47:47 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144169267.442808.52620@t31g2000cwb.googlegroups.com>
Source record: 61633

Cecil,

You dismissed my honest, straightforward accounting of the charge transport implied directly by the scenarios you set up. In no way was it a "logical diversion." It was very much to the point of explaining just WHY there is in fact a time delay through your bugcatcher coil.

Then you have the unmitigated gaul to say it's time to stop the attacks, and then refuse yourself to get into a serious technical discussion.

Away with you, evil spirit. And be very happy that this is a polite forum.

292. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 16:54:50 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <uxxYf.11584$tN3.4620@newssvr27.news.prodigy.net>
Source record: 61634

Richard Fry wrote:

> "Cecil Moore" wrote ...
>> Could it be that the resonant 80 degrees of physical length
>> is 90 degrees of electrical length?
>
> That a self-resonant, unloaded broadcast radiator length is shorter than
> the 90 degree conventional "electrical length" defined by the FCC is a
> given. But this reality sometimes is not recognized.

For instance, EZNEC says a 33 ft. vertical made of #30 wire is
resonant on 7.265 MHz while a one foot diameter pipe is resonant
on 6.9 MHz.

Does the FCC define physical lengths or electrical lengths?
--
73, Cecil http://www.qsl.net/w5dxp

293. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 17:11:20 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <4432a7f4_5@newsfeed.slurp.net>
Source record: 61635

"Cecil Moore"
> Does the FCC define physical lengths or electrical lengths?

They call it an electrical length, but calculate it as the number of free-space electrical degrees contained in the physical length of the radiating structure, at the carrier frequency. So really, FCC "electrical length" is a measure of a physical length, not of an effective electrical length.

The effective electrical length of a MW monople radiator determines its resonant frequencies, and that must include the velocity of propagation along the structure -- which is a function of the height AND width of the radiator (mainly), and the operating frequency.

RF

294. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 17:13:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l79532hk2elhsp89aqat1d1qa0aa8edulo@4ax.com>
Source record: 61637

On Tue, 04 Apr 2006 16:38:48 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>No wonder no one's communicating with him.

Hi Tom,

To him, from him, at him. OK, this is not going to be a grammar
exercise. No, more that complaints should be registered at the box
office where you bought the ticket to this comedy when you expected a
technical presentation.

Myself, on the other hand, I read the program notes and seeing all the
credits and roles played like:
"Occam the magnificent"
or
"Cecileo the ball juggler"
performances of
"My Contacts with the Aliens"
plus dramatic readings
"Sleepless with Kraus"
all that remains is to saunter back for some popcorn during this
between-acts filler routine, or to wait for the strippers when the
real show begins.

-OH- yeah.... I guess now we know what killed vaudeville.

73's
Richard Clark, KB7QHC

PS
So seeing that "from scratch" is beginning to show why, flea bites,
it's time to add some real entertainment value that befits the
gravitas of this opera:

"Pal-yat-chee"

[H&J]

When we was in the city, we was a-wonderin' where to go.
The sign spelled out "Pagliacci" up in lights above the show.
We thought 'twould be a Western, 'til the stage lit up with light,
And ninety-seven people sung, without a horse in sight!
We couldn't unnerstand 'em 'cause they spoke a furrin tongue,
But we can give you some idear of what we think they sung---

[tenor]

Ridi, Pagliaccio,
Sul tuo amore infranto!

[H&J]

All at once, there's a fat guy in a clown suit.
'Tain't Hallerween, that's for shore!
Then this here feller,
This Punchy-neller,
Begins to beller,
Like we all was deef!

[tenor]

Ah, hahahahahahahaha....

[H&J]

That was Pal-yat-chee, and he sung:

Invest in a tuba, and somethin' or other 'bout Cuba,
He sung about a lady, who weighed two-hunnerd-and-eighty.
When she takes a powder, he just starts chirpin' louder,
An' he don't mean a gol-durned thing, 'cept to stand up there and
sing.
When we listen to Pal-yat-chee, we get itchy and scratchy.
This shore is top corn, so we go an' buy some popcorn.
We hate to go back, but we cain't get our dough back;
Ain't no use complainin', 'cause outside it's a-rainin.

[Slicker chorus]

Seven hours later, we're still in the durned thee-aye-ter,
Takin' turns a-nappin, a-waitin' fer somethin' to happen.
Pal-yat-chee, he ain't worryin',
And the folks on stage are flurryin',
And it sounds like Kat-che-turian's "Sabre Dance".

[to the melody of "Sabre Dance"]

Then ole Pal-yat-chee finds the guy he's seekin' cheek-to-cheekin'
With his wife, he grabs a knife
And stabs the louse who stole his spouse
And then he stabs the lady and him self,
'Tain't very sa-ni-ta-ry.
They all collapse,
But then Pal-yat-chee sets up and he gets up singin'
"I am dyin', I am dyin', I am dyin'", we start cryin'
'Cause to tell the truth, we're dyin', too.

[end "Sabre Dance"]

As the footlights fade out, we see Pal-yat-chee laid out,
But the dagger never caused it: Pal-yat-chee was plumb ex-haus-ted!

[tenor]

Ridi, Pagliaccio,
Sul tuo amore in--

[loud belch]

[vaudeville stinger: da-dut dahhhh da-dut DAT! DAAAAAAAHHH! cymbal crash]

Rich

295. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 17:14:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <RPxYf.11585$tN3.6771@newssvr27.news.prodigy.net>
Source record: 61636

Tom Donaly wrote:
> Cecil, I won't try to educate you because it's a waste of time, but
> for everyone else, consider that in an antenna, there is
> energy going into, and being radiated out of, the antenna in the
> form of an electromagnetic wave.

That's true, but compared to the standing waves, it is pretty
small. In fact, when Kraus talks about a 1/2WL thin-wire dipole,
he completely ignores the traveling wave and energy "lost" as
radiation and assumes the forward wave and reflected wave have
the same magnitude. If you want to argue that trivial point, take
it up with Kraus.

Here's what he says: "It is generally assumed that the current
distribution of an infinitesimally thin antenna is sinusoidal,
and that the phase is constaant over a 1/2WL interval, changing
abruptly by 180 degrees between intervals.

That would only be true if the reflected wave was equal in
magnitude to the forward wave, i.e. no loss due to radiation
or I^2*R losses. If Kraus gives us permission to ignore the
traveling wave for purposes of discussion, who are you to
argue?

I have calculated that there is only a 10% drop between forward
voltage or current and the reflected voltage or current arriving
back at the feedpoint for a 1/2WL dipole. For the sake of discussion
of standing waves in standing wave antennas, with an accuracy within
10%, the loss due to radiation can be ignored according to Kraus.
It's akin to ignoring the losses in a transmission line for the sake
of discussion.

> Since Cecil says standing waves
> can't transfer energy from one place to another ...
> sthat means that the only way energy can be radiated is
> through the traveling wave component of the electromagnetic wave.

Yes, that's true and since I have never said otherwise, this
seems to be just another straw man. With an accuracy of about
10%, Kraus gives us permission to ignore the traveling wave
in standing wave antennas for the purposes of discussion.
--
73, Cecil http://www.qsl.net/w5dxp

296. Re: HDTV Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 17:17:57 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <e0u9o7$g3j$1@news.netins.net>
Source record: 61638

Hi Richard, that's why I said "in most cases". I like your probablility metaphor.

Doesn't sound like either one of us will be holding our breath.

...hasan, N0AN

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:1u55329agrpiremn6o4dgqjgbia9u48usj@4ax.com...
> On Tue, 4 Apr 2006 09:23:38 -0500, "hasan schiers"
> <schiers@netins.net> wrote:
>
>>In most cases there is no such thing as too much signal.
>
> Hi Hasan,
>
> In fact that is wrong. Too much signal can black out the picture.
>
> On the other hand, that is about as likely to happen as the borrow and
> spend Republicans delivering a balanced budget.
>
> 73's
> Richard Clark, KB7QHC

297. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 17:27:44 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <k0yYf.11592$tN3.9638@newssvr27.news.prodigy.net>
Source record: 61639

K7ITM wrote:
> You dismissed my honest, straightforward accounting of the
> charge transport implied directly by the scenarios you set up.
> In no way was it a "logical diversion." It was very much to the
> point of explaining just WHY there is in fact a time delay through
> your bugcatcher coil.

The biggest clue that you are not arguing in good faith is that
you trimmed out all the technical content and didn't quote
anything I said. This posting of yours is disembodied from
reality so you can demonize me and emote your angry gut feelings.

Responses with no technical content and no quotes are an obvious
attempt to obfuscate - so obfuscate away.

It is possible I misunderstood what you were trying to say but
unless you quote something of technical value, I will have no
idea what my misunderstanding, if any, was all about.

John P. seems to want to discuss instantaneous movement of
energy. Why don't you two keep that discussion going?
--
73, Cecil http://www.qsl.net/w5dxp

298. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 17:34:47 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <UtidnTggcrpXMa_ZRVn-vg@adelphia.com>
Source record: 61640

Cecil Moore wrote:
> John Popelish wrote:
>
>> But at any point that is not a node in the standing wave pattern,
>> there will be an ordinary AC voltage or current at some amplitude
>> between double the traveling wave amplitude and zero amplitude, and
>> one of two phases (that switch each time you pass a node).
>
>
> Please give us the equation for "ordinary AC voltage or current".

The simplest (without a reference phase) would be cos(wt). The
standing wave function contains this term, with a modifier to tell you
how amplitude varies with position. But at any point, cos(wt) times
some amplitude describes the ordinary AC voltage or current swing.

>> No argument. But a standing wave still represents storage of energy
>> in the line, as with any resonant structure, and that stored energy
>> shows up as magnetic fields and electric fields along the line. The big
>> difference is that the magnetic fields bob up and down at some areas
>> and the electric fields bob up and down half way in between those
>> areas. At any given moment, there is a fixed total energy in the
>> combination of all the magnetic and electric fields.
>
>
> No argument, and therefore no need for the "But" in your statement.
> I agree with you but it doesn't change a thing about the real
> argument.
>
>> Exactly. How can you write this, but deny the capacitive current that
>> delivers this electric field energy twice every cycle to all
>> capacitance feeling this voltage swing?
>
> I don't deny it - never have - never will. Please stop trying
> to set up straw men. The discussion has *NEVER* be about what
> happens during one cycle. The current measured by W8JI and W7EL
> and reported by EZNEC is RMS current. Instantaneous values are
> just another straw man diversion.

EZNEC must take those within a cycle currents and voltages into
account to come up with the amplitude values. The RMS value is just
the amplitude value for a cycle.

>> Profiles do not charge capacitance, ...
>

> I'm glad you agree. Profiles are maximum RMS envelope values
> and that is what EZNEC reports.

See? We agree on lots of stuff.

>>> [Standing wave phase] "doesn't rotate at all, and the resultant
>>> wave it represents doesn't progress through space - its a standing
>>> wave."

At a given point the traveling wave phasor doesn't rotate, either.
Phasor rotation only applies to the phase change over length for a
traveling wave. The phase for standing waves has a discontinuous jump
as you pass through a node, instead of a continuous rotation over
length. I guess one might call that a form of jumpy rotation. Who
doesn't recognize these facts?

>> I suggest you drop talking about phasors, till you understand what
>> cos(wt).
>
>
> Hecht and I have been a little lose with words while assuming
> the readers have a certain knowledge level. For the uninitiated,
> When Hecht (or I) say the phasor doesn't rotate at all, we
> mean the phasor doesn't rotate at all with respect to the
> source phasor.

...and within a half cycle of propagation length.

> Any initiated person would know that. The phase
> of the standing waves doesn't change with respect to the phase
> of the source signal. Hecht assumed you would know what he meant
> by that statement.

Still, it is worth saying well, once in a while.

>>> Speaking of "... net transfer of energy, for the pure standing
>>> wave there is none."
>>
>> A standing wave does not violate conservation of energy.
>
> Exactly my point!

I missed that point. Sorry.

> Nothing violates conservation of energy. If
> the RMS forward current in the coil is the same magnitude at
> both ends and the RMS reflected current in the coil is the
> same at both ends, the conservation of energy principle is
> satisfied NO MATTER WHAT THE STANDING WAVE CURRENT TURNS
> OUT TO BE. What is it about that statement that you don't
> understand?

You don't add superposed RMS values to get the resultant RMS value.
You have to add instantaneous values over a cycle (so that the

relative phases of the two wave cycles are taken into account), and take the RMS of the resultant cycle. See? We have to get inside an individual cycle to understand what is going on. You cannot just deal with RMS (while cycle amplitude values) and get the same answer. This is why I (and others) keep coming back to what is happening inside a cycle, instead of discussing RMS values, only. One cannot understand either traveling wave mechanisms or the super position to a pair of traveling waves (a standing wave) if you think only in RMS values. They display the result of the process, but hide the way the process produces that result.

>> Storage that must continuously be swapping back and forth from
>> magnetic field energy to electric field energy. When the energy
>> storage is all electric, that implies charges capacitance.
>
> Again, nobody has ever been discussing what happens within a
> partial cycle.

I have. You may not be, but that is your lack.

> Discussion of such is obviously a diversionary
> straw man. Feel free to find someone else willing to discuss it.
> It is completely irrelevant to this discussion of RMS envelope
> values.

There is no discussion of RMS envelope values. There is just you repeating the same thought, over and over, while the rest of us discuss the mechanisms that produce that resultant envelope.

You obviously understand how a phase measurement is useless to measure phase shift within a half cycle of a purely standing wave process.

I am waiting for you to realize that you can measure the phase shift of each of the traveling waves that superpose in a standing wave process that includes a coil (or any other network) by using only the RMS amplitude envelope, with no reference to phase, in an EZNEC simulation or a real experiment. That was the whole point that began this discussion, wasn't it?

You keep showing how the current into and out of a particular coil does not have the same RMS value. We get it.

Now, measure the phase shift of that coil (for each of the equal amplitude waves traveling through it) without having to change its environment to put it into a pure traveling wave process. And don't use a phase measurement to do it (which you know is impossible). Use the amplitude envelope. You should be able to measure its phase shift to within a degree or so. And you can then see how that phase shift changes (or if it does) when you move the coil to different places in the standing wave system.

299. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 17:39:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2eb5329scje915brj9gmb9sd17ejvcvm9t@4ax.com>
Source record: 61641

On Tue, 4 Apr 2006 12:11:20 -0500, "Richard Fry" <rfry@adams.net>
wrote:

>The effective electrical length of a MW monople radiator determines its
>resonant frequencies, and that must include the velocity of propagation
>along the structure -- which is a function of the height AND width of the
>radiator (mainly), and the operating frequency.

>>WGOP 80.00ï¿½ tall 125.2 meters tall 540 kHz
>>WWCS 63.50ï¿½ tall 98.8 meters tall 540 kHz
>>WFTD 79.00ï¿½ tall 64.0 meters tall 1080 kHz
>>KYMN 118.60ï¿½ tall 92.3 meters tall 1080 kHz
>>WWLV 90.00ï¿½ tall 47.2 meters tall 1620 kHz
>>WTAW 204.00ï¿½ tall 106.7 meters tall 1620 kHz
>>re:
>>http://www.fcc.gov/mb/audio/amq.html

The FCC provides BOTH measurements. The correlation is obvious. Any
association between resonance, velocity of propagation, height, width,
etc. and something like our 118.60ï¿½ tall antenna needs a heap more
explaining than resonance, velocity of propagation, height, width,
etc. - but such explaining is a specialty occupation here in this
group.

73's
Richard Clark, KB7QHC

300. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 18:14:40 UTC
From: w8ji@akorn.net
Message-ID: <1144174480.860727.84680@g10g2000cwb.googlegroups.com>
Source record: 61642

> K7ITM wrote:
> > You dismissed my honest, straightforward accounting of the
> > charge transport implied directly by the scenarios you set up.
> > In no way was it a "logical diversion." It was very much to the
> > point of explaining just WHY there is in fact a time delay through
> > your bugcatcher coil.

>Cecil Moore wrote:
> The biggest clue that you are not arguing in good faith is that
> you trimmed out all the technical content and didn't quote
> anything I said. This posting of yours is disembodied from
> reality so you can demonize me and emote your angry gut feelings.

Grow up Cecil. Everyone sees what you are doing.

301. Re: Phase shift and translines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 18:20:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <xeedneD_mdenJK_ZnZ2dnUVZ8qqdnZ2d@bt.com>
Source record: 61643

```
> Reg Edwards wrote:
> > The phase shift in degrees along a transmission line is a very
fixed
> > quantity. Regardless of how it is used or what sort of circuit it
is
> > in.
> >
> > The only way to change it is to change line length or frequency.
>
> (continuing on)
>
> This is the property that allows us to distinguish whether a black
box
> contains a length of transmission line or an approximation of that
> made of lumped series inductors and shunt capacitors. The
> approximation will mimic a transmission line, only if the impedances
> driving and loading it are in a range, and only over some frequency
> range. The approximation of a transmission line is good, only under
> some conditions.
==================================
Yes. An artificial line of series inductors and shunt capacitors is a
low pass filter. The propagation delay in time is relatively constant
until near the cut-off frequency when it increases rapidly.

At frequencies beyond cut-off it stops working.

A true transmission line doesn't have a cut-off frequency.
----
Reg
```

302. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 19:07:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1235gvinaojtf1f@corp.supernews.com>
Source record: 61644

I see that Cecil's latest fetish is that EZNEC reports RMS values of voltage and current. Because we know that the voltages and currents are purely sinusoidal, the RMS value and phase angle (also reported by EZNEC) are adequate to define the time waveform. That is, when we know the RMS amplitude and the phase angle, we know the value of the waveform at every instant in time. No additional information is necessary.

Roy Lewallen, W7EL

303. Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 19:17:12 UTC
From: Ronnie <rhughes4-removeme@swbell.net>
Message-ID: <YCzYf.64385$Jd.48901@newssvr25.news.prodigy.net>
Source record: 61645
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Hi,

This is not about ham radio, but rather a general question
about the type of cable and connectors that were found
between the antenna and the AM radio in GM cars in the
60's. I'm trying to locate some technical information about
the cable and a source for the cable and connectors.

I have an old airplane autopilot system that uses tuned circuit
to sense changes in the airplane's attitude and the position of
the control servos. Distributed variable inductances and
variable capacitors combine to establish the resonant
operating frequency of the system. The components are
connected together with specific lengths of cable and the
service manual points out that the lengths are critical because
of the added capacitance of the cable and connectors.

The cable is marked as follows:

"I. T. & T. Federal Cable R.E.C."

It is a shielded cable with a spiral wound center conductor
that looks very much like the antenna cable I remember finding
in GM cars in the 60's. It also has the same type of connectors.
There is a center pin for the center conductor and a metal sleve
that extents back over the cable and makes a connection with the
shield and chassis of the radio. Friction holds the connector in
its mating socket - there are no threads, just a couple of splayed out
areas on the sleve.

I was hoping one of you might be able to point me to a source
of technical information about this cable, such as the capacitance
per unit length, etc. The one piece I have measures about 10.5 pF / foot
or 415 pF / meter, but my measurements may not be all that accurate.

Also, a source where the cable and connectors can be found today
would be appreciated.

Thanks in advance for any help.

Ronnie, N5CSE

304. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 19:22:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <THzYf.64386$Jd.36573@newssvr25.news.prodigy.net>
Source record: 61646

John Popelish wrote:
> Cecil Moore wrote:
>> Please give us the equation for "ordinary AC voltage or current".
>
> The simplest (without a reference phase) would be cos(wt). The standing
> wave function contains this term, with a modifier to tell you how
> amplitude varies with position. But at any point, cos(wt) times some
> amplitude describes the ordinary AC voltage or current swing.

But please notice that cos(kx+wt) is different from that term.
The only time they are the same is if 'x' = 0. Is 'x' always
equal zero? No. All your equation tells us is that whatever
current it represents, it is always in phase with the reference
source at 'x' = 0. So your equation is too simple to be useful.
Please try again.

> EZNEC must take those within a cycle currents and voltages into account
> to come up with the amplitude values.

"Must" or "does". I have no idea.

> At a given point the traveling wave phasor doesn't rotate, either.

On the contrary - at any given point 'x', the traveling wave
phasor is rotating with respect to the source phasor. That's
what makes it different from a standing wave phasor which
doesn't rotate with respect to the source phasor.

> Phasor rotation only applies to the phase change over length for a
> traveling wave.

No, that's wrong. Take another look at cos(kx+wt). Holding 'x'
at a constant value, the phase keeps on changing. The traveling
wave phasor is rotating with respect to the source. The standing
wave phasor is not rotating with respect to the source, just
as Hecht says speaking of standing waves: "The resultant
phasor is E1 + E2 = E ... Keeping the two [traveling wave]
phasors tip-to-tail and having E1 rotate counterclockwise as
E2 rotates (at the same rate) clockwise, generates E [total] as a
function of 't'. ... It doesn't rotate at all, and the resultant
wave it represents doesn't progress through space - it's a
standing wave."

You really need to get you a copy of Hecht's "Optics". It the
best treatment of standing waves that I have ever seen - also
best at superposition and interference explanations.

> You don't add superposed RMS values to get the resultant RMS value.

Sure you do. Current #1 is an RMS value at angle 1. Current #2
is an RMS value at angle 2. The superposition is:

RMS#1*cos(A1) + RMS#2*cos(A2) = RMS(total)

> There is no discussion of RMS envelope values.

Where have you been? The currents displayed by EZNEC are RMS
envelope values. The antenna currents plotted in Kraus and
Terman are RMS envelope values. The currents measured at the
top and bottom of the coils by W8JI and W7EK are RMS envelope
values.

> I am waiting for you to realize that you can measure the phase shift of
> each of the traveling waves that superpose in a standing wave process
> that includes a coil (or any other network) by using only the RMS
> amplitude envelope, with no reference to phase, in an EZNEC simulation
> or a real experiment. That was the whole point that began this
> discussion, wasn't it?

Yes, I said that months ago but nobody would buy the argument.
Over those months, I have given countless examples proving that
to be true. Everyone just ignored those technical facts as they
have ignored 95% of the technical content of my postings only
to concentrate on the 5% containing feelings or bad humor.

> Now, measure the phase shift of that coil ...

Sorry, the coil is obviously not the problem. Everyone understands
how a coil works. What everyone doesn't understand is how standing
waves in a wire work. That will be my topic of discussion from now
on. But feel free to continue the coil topic with anyone else.
--
73, Cecil http://www.qsl.net/w5dxp

305. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 19:34:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <%SzYf.64388$Jd.53946@newssvr25.news.prodigy.net>
Source record: 61647

w8ji@akorn.net wrote:
> Grow up Cecil. Everyone sees what you are doing.

Everyone should see that I am trying to discuss technical
issues while the rest of you object to the 5% of my postings
that are bad humor or complaints about how I am being
unfairly treated.

Why do you refuse to discuss technical issues? For
instance, you have avoided responding to my black box
question. Are you afraid everyone will see just
how wrong you are?

Here is it again assuming a lossless transmission line:

Source----------a-BB-b------------c-BB-d----------open

The current measured at 'a' is one amp.
The current measured at 'b' is zero amps.
The current measured at 'c' is zero amps.
The current measured at 'd' is one amp.

What are the possibilities for what could be in the
black boxes?

There could be 90 degrees of transmission line in
each box.

Or there could be 90 degree coils in each box.

Or one box could contain 90 degrees of transmission line
and the other contain 90 degrees of coil.
--
73, Cecil http://www.qsl.net/w5dxp

306. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 19:39:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gYzYf.64389$Jd.49130@newssvr25.news.prodigy.net>
Source record: 61648

Roy Lewallen wrote:

> I see that Cecil's latest fetish is that EZNEC reports RMS values of
> voltage and current. Because we know that the voltages and currents are
> purely sinusoidal, the RMS value and phase angle (also reported by
> EZNEC) are adequate to define the time waveform. That is, when we know
> the RMS amplitude and the phase angle, we know the value of the waveform
> at every instant in time. No additional information is necessary.

Since you agree with me, what's with the fetish remark?
You seem to feel obliged to take an ad hominem pot shot
every time you mention my name. I assure you, it is
hurting your reputation more than it is hurting mine.
--
73, Cecil http://www.qsl.net/w5dxp

307. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 19:48:54 UTC
From: nm5k@wt.net
Message-ID: <1144180134.652165.148310@g10g2000cwb.googlegroups.com>
Source record: 61649

Ok, I'll bite once more since you have put so much work into
that post.... :/

>MK, that is the whole point, that you portray missing or not appreciating.

Yes. It is quite true. I don't really appreciate the importance of
knowing
if the current tapers across a coil or not. Even if I did, what could I
do about
it? But you can consider this a personal problem...

> It might not matter to you, but I am sure many would benefit from knowing
>more precisely what is REALLY going on and then use or correct their design
>methodology.

How are you going to to fix what is not broke? There is nothing wrong
with the current state of mobile whip design. I don't see how it can be

improved without going to unpractical measures. Deciding whether or
not there is current taper across the coil is not going to help you
improve a mobile antenna one whit.
Now, I'll agree there might be other app's where it could be useful to
be aware of this, but not for mobile whips.

> I think it is fine for you to ignore this and poh-poh it. But I know how
>huge difference it made in my 160m mobile antenna when I extended the whip
>to the front bumper with wire.

No kidding.... I've never heard of adding a longer whip to improve a
mobile antenna. :/ What does coil current taper have to do with this?
I could have told you about adding longer whips way before you even
thought
about current taper. I've never needed current taper technology to
know
that adding a longer top whip to a short mobile antenna will generally
improve
performance.
Have you ever tried Reg's "vertload"? You can play "what if" till the
cows
come home... I often have...

>The lesson is, the higher you place the coil on the
>radiator, the more turns you need to reresonate the radiator, the high
>current portion of the antenna current distribution curve gets "stretched
>up", better efficiency (larger area under the overall curve).

And this lesson is new? Get a grip...I've been aware of this for years.

And I think most others have been too...

>This all is supported by reality, except "gurus" who insist that the current
>is (about) the same across the coil and they make (theoretically) antenna
>current to be higher across the tip and "more" efficient than it is.

You can't fool a field strength meter. It makes no difference whether
one
believes there is a taper or not, the antenna is still going to perform
the
same for a given coil height on a given height mast.

>It is known how profound effect had replacement of loading stubs by coils in
>the KLM 3 el. 80 m loaded Yagi. Better gain, huge improvement in the F/B and
>pattern. Has been done and described. And this is just replacing the same
>inductance value stub with coil, where delta current from stub wires was
>enough to throw monkey wrench in the Yagi performance. Now consider larger
>error from the wrong assumption or calculation caused by wrong current
>magnitudes and distribution.

Not a very good example. Sure, replacing inferior stubs, or whatever
methods
of linear loading are usually going to be improved by changing to coil
loading.
No big surprise. If doing this makes a large improvement in f/b,
pattern, etc,
sounds like it was a poor design from the git go... I still don't
follow how
knowing about current taper is going to help you much here. How will
you
apply this knowledge? Will this "improved coil taper technology"
improve
performance more than 1 db? At this point, I won't be holding my
breath.

>Heloooo guys!
>Measure, feel, whatever, the frickin' current across the loading coil and
>then come back and tell the world why it IS different, but IT CAN'T be so,
>because you said so in the beginning and you just can't admit being wrong.

Dunno...I think you have me confused with someone who really gives a
hoot.
I could care less if you are right or wrong. What I want to know is how
is this
"knowledge" going to improve a mobile whip. ?
I'll grant you that there may well be cases where knowledge of this
could
be useful. Mainly when modeling very complex antennas.
But as far as the basic mobile whip, knowing about current taper across

the coil is not going to help you improve the antenna one bit.
Trying to say that it showed you that you need to add a longer
capacitive

whip to a 160m antenna is silly.
You can run "vertload" and see the appx best place for the coil very quickly. No current taper technology will be used, yet it will be quite accurate for most all uses.
This coil taper effect you have spent months trying to prove may seem very important to you, but to me it's fairly ho-hum..."snore" It's been shown
that the possible errors in modeling are going to be generally small and usually under 1 db in most cases.
There may be something useful to come out of all this, but it ain't going
to be an improvement of mobile antenna design. I think it's safe to say you can take that to the bank. The optimum location of a coil on a short whip is already well known and etched in fairly hard material. Deciding there is current taper across the coil is not going to change this.
MK

308. Re: HDTV Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 19:50:55 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <e0uimvjtb2@engnntp2.cig.mot.com>
Source record: 61656

If that is the comparison, then everyone already has the black-out...
buh dum dum.
73, Steve, K9DCI

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:1u55329agrpiremn6o4dgqjgbia9u48usj@4ax.com...
> On Tue, 4 Apr 2006 09:23:38 -0500, "hasan schiers"
> <schiers@netins.net> wrote:
>
> >In most cases there is no such thing as too much signal.
>
> Hi Hasan,
>
> In fact that is wrong. Too much signal can black out the picture.
>
> On the other hand, that is about as likely to happen as the borrow and
> spend Republicans delivering a balanced budget.
>
> 73's
> Richard Clark, KB7QHC

309. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 19:54:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1235jnuqlvl9627@corp.supernews.com>
Source record: 61650

Since EZNEC has been mentioned so much lately, it's appropriate to point out that it's able to calculate the current at all points along a helically modeled loading inductor with what I believe to be very good accuracy. And it does it without any use or knowledge of presumed traveling voltage or current waves. It deals only with the total current. Perhaps Cecil would benefit from investigating how this is done.

EZNEC uses NEC-2 for calculations, and the NEC-2 manual is available on line at no cost. A detailed description of its methodology is presented in Part I. For those who want just a general overview of the method (the method of moments) in a more easily understood format, one can be found in the second and later editions of Kraus' _Antennas_. I notice that most newer antenna texts also include a description of the moment method, and it should be available in the web as well.

Roy Lewallen, W7EL

310. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 20:05:13 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144181113.412135.248850@t31g2000cwb.googlegroups.com>
Source record: 61651

I beg your pardon? Excuse me? I "trimmed out all the technical content and didn't quote anything you said"??? As a matter of fact, I took exactly the numbers you gave us, ALL of them, and used them and ONLY them in my accounting. If THAT's "disembodied from reality," then I'd point out that it's YOUR numbers that are disembodied from reality. In fact, I didn't argue with YOUR numbers at all. I just took them at face value. You were the one that discarded what I carefully developed from them without out so much as an ounce of reasoning or explanation. After that I went on to FURTHER EXPLAIN why I had done what I did in the first place, and you dismissed that again without any technical explanation.

It's all there for everyone to see, Cecil.

Go ahead, dig yourself deeper into it.

311. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 20:11:54 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144181514.142347.209790@v46g2000cwv.googlegroups.com>
Source record: 61652

Cecil wrote, in reply to John P.,

"Of course, *everyone* except you and Tom Donaly are talking about
charge stored over a whole cycle."

Excuse me???

Note Cecil's emphasis on "everyone". Note that this was posted AFTER I had repeatedly told him that _I_ was not talking about 'charge stored over a whole cycle'. I'm offended that Cecil would fail to acknowledge me as not being in the "everyone" group. I'll let others speak for themselves, but I'd put pretty good odds that several others will be crystal clear about not being included in that "everyone."

312. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 20:15:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <itAYf.64393$Jd.27026@newssvr25.news.prodigy.net>
Source record: 61653

Roy Lewallen wrote:
> And it does it without any use or knowledge of presumed
> traveling voltage or current waves.

Thanks for the reference, Roy, I'll take a look at it.

One wonders how EZNEC tells the difference between a
standing wave antenna and a traveling wave antenna
"without any use or knowledge of presumed traveling
voltage or current waves".

I'm willing to bet it doesn't use lumped circuit
theory. :-) I'm also willing to bet that forward
and reflected waves are taken care of in the
equations used by NEC.
--
73, Cecil http://www.qsl.net/w5dxp

313. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 20:18:26 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <mwAYf.64394$Jd.299@newssvr25.news.prodigy.net>
Source record: 61654

K7ITM wrote:

> I beg your pardon? Excuse me? I "trimmed out all the technical
> content and didn't quote anything you said"???

Yes, and you are doing it again. I'm quoting your entire posting
and there is not one quote from me.

> As a matter of fact, I
> took exactly the numbers you gave us, ALL of them, and used them and
> ONLY them in my accounting. If THAT's "disembodied from reality," then
> I'd point out that it's YOUR numbers that are disembodied from reality.
> In fact, I didn't argue with YOUR numbers at all. I just took them at
> face value. You were the one that discarded what I carefully developed
> from them without out so much as an ounce of reasoning or explanation.
> After that I went on to FURTHER EXPLAIN why I had done what I did in
> the first place, and you dismissed that again without any technical
> explanation.
>
> It's all there for everyone to see, Cecil.

If there's a quote from me in this posting, Tom, I am unable
to find it.

> Go ahead, dig yourself deeper into it.

Since you didn't quote anything I said, I have no idea what
you are talking about.
--
73, Cecil http://www.qsl.net/w5dxp

314. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 20:26:07 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144182367.544279.161490@e56g2000cwe.googlegroups.com>
Source record: 61655

You really think so, Cecil?? I saw through it the first time you posted it. As an EZNEC and NEC2 user, I know that not only the current magnitude, but also its phase, is reported. I knew that what you posted about it was incorrect. I don't see Roy's comment as agreeing with you at all, but completely disagreeing. You said that it only gave amplitude information, when in fact it gives phase and amplitude.

315. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 20:42:50 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <eTAYf.64397$Jd.37975@newssvr25.news.prodigy.net>
Source record: 61657

K7ITM wrote:

> Cecil wrote, in reply to John P.,
>
> "Of course, *everyone* except you and Tom Donaly are talking about
> charge stored over a whole cycle."

It sure would be nice if you made your attributions conform
to netnews guidelines. I cannot tell what you are responding
to since your attributions are all screwed up.

> Excuse me???
>
> Note Cecil's emphasis on "everyone". Note that this was posted AFTER I
> had repeatedly told him that _I_ was not talking about 'charge stored
> over a whole cycle'. I'm offended that Cecil would fail to acknowledge
> me as not being in the "everyone" group. I'll let others speak for
> themselves, but I'd put pretty good odds that several others will be
> crystal clear about not being included in that "everyone."

I obviously got my "Tom's" mixed up. There's three of you here
and it's likely a common mistake. I profusely apologize and don't
know what else I can do to rectify my mistake.

If there were two Cecil's here and you got us mixed up, I wouldn't
get my panties bunched into a wedgie because of that.
--
73, Cecil http://www.qsl.net/w5dxp

316. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 20:47:05 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <lXAYf.9$jZ5.8@fe11.lga>
Source record: 61658

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:1k5532h8scbtg8e8iscn4ncjuusoa7ddai@4ax.com...
> On Tue, 4 Apr 2006 10:32:08 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>>Now consider larger
>>error from the wrong assumption or calculation caused by wrong current
>>magnitudes and distribution.
>
> Hi Yuri,
>
> Why is it that you can say this so often, and yet never put a number
> to it?
>

Experience, my dear, experience.
If I am capabl;e of writing to you, I don't have to put number on it, how
many letters of alphabet I master.

> What is the error? You also speak of efficiency. What is the
> efficiency?
>
Stick in the EZNEC and find out if you can't sleep without numbers.
Anyone who looks at current distribution curves can see that there is a
difference. No need for lawyers and precise numbers. If only this was the
problem, then I would give you answer to 4 decimal places. You have greater
problem with "gurus" not getting the big picture (or pretending to).

> Very simple questions. Technically based. Selected because they seem
> to be of supreme importance to you, and yet you don't seem to have a
> handle on the situation.
>
I have the handle on it, appreciate the magnitude and with time there will
be some numbers.
Cecil posted files, anyone who is hang up on numbers can get them from the
EZNEC if properly defined, instead of poking needles.
We are having problem with people admitting there could be difference in the
current across loading coils, and here the "problems" is what is the error?

So lets stick to the big problem and fuggettabout detours and nitpicking.

Yuri, K3BU

> 73's
> Richard Clark, KB7QHC

317. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 20:50:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <B_AYf.64398$Jd.57750@newssvr25.news.prodigy.net>
Source record: 61659

K7ITM wrote:

> You really think so, Cecil?? I saw through it the first time you
> posted it. As an EZNEC and NEC2 user, I know that not only the current
> magnitude, but also its phase, is reported. I knew that what you
> posted about it was incorrect. I don't see Roy's comment as agreeing
> with you at all, but completely disagreeing. You said that it only
> gave amplitude information, when in fact it gives phase and amplitude.

Again, no quote from me. I have no idea to what you are responding
or even if you are responding to something I said today or last year.

I didn't say EZNEC doesn't give phase information. I said there is
no phase information in the phase information that EXNEC gives.
What is it about Gene's posting that you don't understand?

> Regarding the cos(kz)*cos(wt) term in a standing wave:
>
> Gene Fuller, W4SZ wrote:
>> In a standing wave antenna problem, such as the one you describe, there is no
>> remaining phase information. Any specific phase characteristics of the traveling
>> waves died out when the startup transients died out.
>>
>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen again.
>>
>> The only "phase" remaining is the cos (kz) term, which is really an amplitude
>> description, not a phase.
--
73, Cecil http://www.qsl.net/w5dxp

318. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 20:58:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <a6BYf.64400$Jd.50655@newssvr25.news.prodigy.net>
Source record: 61660

Yuri Blanarovich wrote:
> We are having problem with people admitting there could be difference in the
> current across loading coils, and here the "problems" is what is the error?

Actually, the problem is more elementary than coils. Everyone
seems to understand coils installed in circuits.

The ignorance seems to be of the nature of the physics involved
in standing waves, whether on a wire or on a coil or in free
space. So I have switched the discussion to where it belongs,
to a discussion of standing waves, with or without coils,
with or without wires.

I offered the following example which the gurus refuse to touch
with a ten foot pole. One wonders why. The transmission line is
lossless and BB is a black box.

Source-------a-BB-b-----------c-BB-d---------open circuit

The current at 'a' is measured at one amp.
The current at 'b' is measured at zero amps.
The current at 'c' is measured at zero amps.
The current at 'd' is measured at one amp.
What's in the black boxes?

Would you believe ZERO responses from the gurus?
--
73, Cecil http://www.qsl.net/w5dxp

319. Antenna RF choke questions

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 22:08:58 UTC
From: AK <nomail@aol.com>
Message-ID: <_7CYf.908089$xm3.833232@attbi_s21>
Source record: 61661

Putting together a new Cushcraft A4S (10,15, 20m) beam.

Cushcraft recommends using an 8-turn, 6-inch diameter RG8U coax cable coil as an RF choke for feeding the driven element. HyGain suggested the same thing for the TH2MK3 antenna I used many years ago -- only using 12 turns of RG8 (with the 6-inch outside diameter), rather than 8 turns. I have a few questions on the best way to do this.

1) Is it fair to assume that the more turns the better?

2) Should the coil be as close to the antenna feedpoint as possible, or is a foot or two of straight coax between the antenna input and the coil OK?

3) Would placing the coax coil around the mast (instead of taping one side of the coil to the mast as suggested) be a bad thing to do?

4) Is there a good website or book that describes the technical tradeoffs of a coax RF choke? (I am sort of wondering if the choke can be skipped. Some time ago, I used a W2AU balun on a multiband dipole. All it did was create TVI when I went on 10 meters. Took the balun out, and the resonant points didn't change. I figured that if there were antenna currents on the coax, they would bring down the resonant frequency without the balun. Since that didn't happen, I figured the balun wasn't helping - - but balun core saturation at 30 MHz (with the KW on) was what was racking up the TVs.)

5) One last question - not having to do with the coax RF choke:
Cushcraft "operating tips" say to not use vinyl tape on SO239 or PL-239 connectors. Why? What problem would the tape cause??

Thanks for any info - AK

320. Want a Maxcom Antenna Matcher (stop laughing please)

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 22:13:46 UTC
From: Skipp is here <skipp025NOSPAMPLEASE@yahoo.com>
Message-ID: <e0ur2q$1np$1@skeeter.ucdavis.edu>
Source record: 61662
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Re: Want a Maxom Antenna Matcher

I'm looking for one of the Maxcom Antenna Matcher Units. If you have one you'd like to part with for a fair price... please email me at the below email address, or take out the NOSPAMPLEASE from the reply header above.

I know some of you are laughing because of what the Maxcom really is inside, but I'd like to buy a used one anyway.

Thanks for reading this post

cheers,

skipp

skipp025 at yahoo.com

321. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 22:24:39 UTC
From: w8ji@akorn.net
Message-ID: <1144189479.684490.115390@z34g2000cwc.googlegroups.com>
Source record: 61663

Yuri Blanarovich wrote:
> We are having problem with people admitting there could be difference in the
> current across loading coils, and here the "problems" is what is the error?
> So lets stick to the big problem and fuggettabout detours and nitpicking.
> Yuri, K3BU

Yuri,

Rather than playing like Cecil and making words for others, please post the dates and statements made by people who say current cannot be uneven at each end of a coil.

Show us where that is said with an exact in context quote, don't pull a Cecil and invent something that you expect us to blindly accept as the truth.

It would help if we knew what you were talking about.

73 Tom

322. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 22:26:13 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <PYf0KomFKvMEFAKW@ifwtech.co.uk>
Source record: 61601

Cecil Moore wrote:
>Yuri Blanarovich wrote:
>> We are having problem with people admitting there could be difference
>>in the current across loading coils, and here the "problems" is what
>>is the error?
>
>Actually, the problem is more elementary than coils. Everyone
>seems to understand coils installed in circuits.
>
>The ignorance seems to be of the nature of the physics involved
>in standing waves, whether on a wire or on a coil or in free
>space. So I have switched the discussion to where it belongs,
>to a discussion of standing waves, with or without coils,
>with or without wires.
>
>I offered the following example which the gurus refuse to touch
>with a ten foot pole. One wonders why. The transmission line is
>lossless and BB is a black box.
>
>Source-------a-BB-b-----------c-BB-d---------open circuit
>
>The current at 'a' is measured at one amp.
>The current at 'b' is measured at zero amps.
>The current at 'c' is measured at zero amps.
>The current at 'd' is measured at one amp.
>What's in the black boxes?
>
>Would you believe ZERO responses from the gurus?

In an Internet discussion, everybody has the right to attempt to switch
the discussion away from the point.

Everybody else has the inalienable right not to follow them.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

323. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 22:31:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r8s532huhrpbkjjvgmhtn8sdt49gg9gnt6@4ax.com>
Source record: 61665

On Tue, 4 Apr 2006 16:47:05 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:
>> Very simple questions. Technically based. Selected because they seem
>> to be of supreme importance to you, and yet you don't seem to have a
>> handle on the situation.
>>
>I have the handle on it, appreciate the magnitude and with time there will
>be some numbers.

Hi Yuri,

So, after all these years, you have more grief than numbers. You
cannot give us the accuracy necessary to resolve this, and you haven't
got a number to call efficiency. The solution has long been offered,
so this must be more a matter of personality than technicality.

>So lets stick to the big problem and fuggettabout detours and nitpicking.

You haven't told us how "big" problem is, and with more tears than
numbers, "big" seems to be an emotional measure. You would get more
traction hiring professional mourners for this wake. At least we
could count them to see how important the corpse was.

To this point there seems to be only one mourner, and a Texas cowboy
spitting in his face and calling it the refreshing dew of early
spring.

73's
Richard Clark, KB7QHC

324. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 22:31:53 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <6Y-dnfdPp43xb6_ZRVn-tQ@adelphia.com>
Source record: 61664

Cecil Moore wrote:
> John Popelish wrote:
>
>> Cecil Moore wrote:
>>
>>> Please give us the equation for "ordinary AC voltage or current".
>>
>>
>> The simplest (without a reference phase) would be cos(wt). The
>> standing wave function contains this term, with a modifier to tell you
>> how amplitude varies with position. But at any point, cos(wt) times
>> some amplitude describes the ordinary AC voltage or current swing.
>
>
> But please notice that cos(kx+wt) is different from that term.
> The only time they are the same is if 'x' = 0. Is 'x' always
> equal zero? No. All your equation tells us is that whatever
> current it represents, it is always in phase with the reference
> source at 'x' = 0. So your equation is too simple to be useful.
> Please try again.

Thanks for agreeing with me. I said every bit of this in words added
as modifiers to cos(wt).

>> EZNEC must take those within a cycle currents and voltages into
>> account to come up with the amplitude values.
>
>
> "Must" or "does". I have no idea.
>
>> At a given point the traveling wave phasor doesn't rotate, either.
>
>
> On the contrary - at any given point 'x', the traveling wave
> phasor is rotating with respect to the source phasor.

That is not what the formula says. Pick and X and you get a constant
phase angle with respect to the zero degree reference. Pick a point
on a standing wave, and you get a constant phase angle (one of two,
180 degrees apart). If one rotates, so does the other. of one does
not rotate, neither does the other, at that point.

> That's what makes it different from a standing wave phasor
> which doesn't rotate with respect to the source phasor.

I disagree. There are differences, but that is not one of them.

>> Phasor rotation only applies to the phase change over length for a
>> traveling wave.
>
> No, that's wrong. Take another look at cos(kx+wt). Holding 'x'
> at a constant value, the phase keeps on changing.

No. the kx term is the phase term. Pick and X and the phase (with
respect to the zero phase reference freezes. The wave continues to
unfold in time, but with that fixed phase relationship to the phasor
reference.

> The traveling
> wave phasor is rotating with respect to the source.

Not at a point. at any point, there is a fixed phase relationship
withe the phasor zero degree reference.

> The standing
> wave phasor is not rotating with respect to the source, just
> as Hecht says speaking of standing waves: "The resultant
> phasor is E1 + E2 = E ... Keeping the two [traveling wave]
> phasors tip-to-tail and having E1 rotate counterclockwise as
> E2 rotates (at the same rate) clockwise, generates E [total] as a
> function of 't'. ... It doesn't rotate at all, and the resultant
> wave it represents doesn't progress through space - it's a
> standing wave."

The standing wave is a mathematical concept that represents the super
position of a pair of waves that are going someplace. It represents a
case where two equal energys are being delivered in two opposite
directions, so no net energy moves. But waves continue to travel.

> You really need to get you a copy of Hecht's "Optics". It the
> best treatment of standing waves that I have ever seen - also
> best at superposition and interference explanations.

I don't need this reference. I have a form grasp of traveling waves
and their superposition.

>> You don't add superposed RMS values to get the resultant RMS value.
>
> Sure you do. Current #1 is an RMS value at angle 1. Current #2
> is an RMS value at angle 2. The superposition is:
>
> RMS#1*cos(A1) + RMS#2*cos(A2) = RMS(total)

That is not adding, that is scaled adding (with a possibility that one
or both scaling factors are negative). Do you get negative total RMS
current, if both cos(A) terms are negative?

>> There is no discussion of RMS envelope values.
>
>
> Where have you been? The currents displayed by EZNEC are RMS

> envelope values. The antenna currents plotted in Kraus and
> Terman are RMS envelope values. The currents measured at the
> top and bottom of the coils by W8JI and W7EK are RMS envelope
> values.

I didn't mean that no one is dealing with RMS values, I meant that no
one disagrees (is discussing) RMS values. It is not a point of
contention.

>> I am waiting for you to realize that you can measure the phase shift
>> of each of the traveling waves that superpose in a standing wave
>> process that includes a coil (or any other network) by using only the
>> RMS amplitude envelope, with no reference to phase, in an EZNEC
>> simulation or a real experiment. That was the whole point that began
>> this discussion, wasn't it?
>
>
> Yes, I said that months ago but nobody would buy the argument.
> Over those months, I have given countless examples proving that
> to be true. Everyone just ignored those technical facts as they
> have ignored 95% of the technical content of my postings only
> to concentrate on the 5% containing feelings or bad humor.
>
>> Now, measure the phase shift of that coil ...
>
>
> Sorry, the coil is obviously not the problem. Everyone understands
> how a coil works.

When did everyone agree on that? Last time I looked, you were
claiming that one could use the self resonant frequency as a way to
predict the phase shift through a coil at other frequencies (to some
rather open tolerance) with the assumption of constant time delay.
And then you tested (with EZNEC) a coil in a one way wave situation
and demonstrated a 5 to 1 change in time delay over a rather small
frequency range, then you dropped the subject of coils and claim we
are all talking about some mystery of standing waves. It is hard to
keep up.

> What everyone doesn't understand is how standing
> waves in a wire work.

That is a pretty broad claim, unless you are really speaking for yourself.

> That will be my topic of discussion from now
> on. But feel free to continue the coil topic with anyone else.

Okay. I won't mention "bug catchers" any more in posts responding to
you. Glad that's over. ;-)

325. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 22:45:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sit532lfq1mt4aaptqtlnar733p3gbsq2f@4ax.com>
Source record: 61666

On Tue, 04 Apr 2006 18:31:53 -0400, John Popelish <jpopelish@rica.net>
wrote:
> Glad that's over. ;-)

"The triumph of hope over experience"

326. elevator noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 23:21:17 UTC
From: ml <m@di.net>
Message-ID: <m-66F49E.19211504042006@news.verizon.net>
Source record: 61667

today the elevator room on the roof is all relays, looks like a
frankenstin set from the 50's wouldn't be surprized if the relays are
actually from 50's either

my antenna is mounted on the wall (brick) of this room

currently i don't get any noise (electricial)

Just found out the building is thinking of adding new elevators and
modern controlers

so now i wonder, should i suspect that they are all rf tight in metal
housing's or a rf nightmare?

anyone have any experience w/how much 'noise'/hash they might throw ooff?

tnx

m

327. Re: paint antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 23:23:58 UTC
From: ml <m@di.net>
Message-ID: <m-4B2809.19240104042006@news.verizon.net>
Source record: 61668

In article <slrne34odq.465.Silfax@minimac.linux1.lan>,
Silfax <Silfax@localhost.localdomain> wrote:

> >> Dave WD9BDZ
> >
> > the bricks have been recently waterproffed, thou i guess they will still
> > be soggy after a strong rain guess i'd just have to add a small amount
> > of paint, and keep painting till swr etc are where it need to be to make
> > resonant if it even works
> >
> > sounds like a fun experiment can't wait to snag some paint
>
> If you paint a yagi on the roof, how do you intend on rotating the building?

my original post specified one direction , figured that's until i can
rotate the building easily

but if the antenna of this type worked well /was practical past the
experiment stage wich was also specified as the point...

then a better way would be to just paint 4 , one for each side and use
a coax switch yeah thats cool

328. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 23:24:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <%eDYf.44729$_S7.40838@newssvr14.news.prodigy.com>
Source record: 61669

John Popelish wrote:

> Cecil Moore wrote:
>> So your equation is too simple to be useful.
>
> Thanks for agreeing with me.

No - thank you for agreeing with me that your equation is too
simple to be useful. :-)

> That is not what the formula says. Pick and X and you get a constant
> phase angle with respect to the zero degree reference.

But that phase angle is not zero as it is for standing waves.
You seem to be talking in circles. How can the phase shift
between the traveling wave and the source reference ever be
zero at a point 90 degrees away from the source? If it cannot,
then you have evidence that the traveling wave is NOT identical
to the standing wave as evidenced by their different equations.

> Last time I looked, you were claiming
> that one could use the self resonant frequency as a way to predict the
> phase shift through a coil at other frequencies (to some rather open
> tolerance) with the assumption of constant time delay.

Where have you been? I gave up on that idea long ago. I even posted
a Dr. Corum quote to that effect. You obviously need to look more
often.

Let's cut to the bottom line. You seem to believe that standing wave
current is identical to traveling wave current. If that's your point,
just say so. Otherwise, please tell us the difference between the
standing wave current and the traveling wave current which seems
obvious to me from the equations.
--
73, Cecil http://www.qsl.net/w5dxp

329. Re: Antenna RF choke questions

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 23:26:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123605h66a6vld1@corp.supernews.com>
Source record: 61670

AK wrote:
> Putting together a new Cushcraft A4S (10,15, 20m) beam.
>
> Cushcraft recommends using an 8-turn, 6-inch diameter RG8U coax cable coil
> as an RF choke for feeding the driven element. HyGain suggested the same
> thing for the TH2MK3 antenna I used many years ago -- only using 12 turns of
> RG8 (with the 6-inch outside diameter), rather than 8 turns. I have a few
> questions on the best way to do this.
>
> 1) Is it fair to assume that the more turns the better?

No. The coil makes a broadly resonant circuit, which greatly increases its common mode impedance. Increasing the number of turns will lower it.

> 2) Should the coil be as close to the antenna feedpoint as possible, or is a
> foot or two of straight coax between the antenna input and the coil OK?

No problem.

> 3) Would placing the coax coil around the mast (instead of taping one side
> of the coil to the mast as suggested) be a bad thing to do?

Probably. It's likely to lower the resonant frequency, reducing the common mode impedance.
>
> 4) Is there a good website or book that describes the technical tradeoffs of
> a coax RF choke? (I am sort of wondering if the choke can be skipped. Some
> time ago, I used a W2AU balun on a multiband dipole. All it did was create
> TVI when I went on 10 meters. Took the balun out, and the resonant points
> didn't change. I figured that if there were antenna currents on the coax,
> they would bring down the resonant frequency without the balun. Since that
> didn't happen, I figured the balun wasn't helping - - but balun core
> saturation at 30 MHz (with the KW on) was what was racking up the TVs.)

For general information on baluns and common mode chokes (called "current baluns" in the article), see http://eznec.com/Amateur/Articles/Baluns.pdf. For dimensions of air core chokes like yours, see the ARRL Handbook.

That's an interesting story about the W2DU balun. There must have been a huge amount of common mode current, and insufficient balun impedance.

> 5) One last question - not having to do with the coax RF choke:
> Cushcraft "operating tips" say to not use vinyl tape on SO239 or PL-239
> connectors. Why? What problem would the tape cause??

Can't help you there.

Roy Lewallen, W7EL

330. Re: elevator noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 23:30:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3tv532dv6ssa32revk6mgee12o31v8tr89@4ax.com>
Source record: 61671

On Tue, 04 Apr 2006 23:21:17 GMT, ml <m@di.net> wrote:

>anyone have any experience w/how much 'noise'/hash they might throw ooff?

Hi Myles,

Most controllers I've designed with were always "zero crossing"
sensitive. That means they did not add RF trash by switching loads at
high (or even modest) voltage levels. This is not to say when they
turn off the load as some controllers are proportional (using a part
of the voltage cycle).

For motor control, I have had to use very, very fast servos which
could tolerate an overvoltage of 10:1 of its usual rating (hitting a
10V servo with 100V for instance). I didn't give much thought to the
hash created because this was in a printing plant where I had to
accelerate a page of paper in milliseconds (takes quite a bit of power
to do this).

Do a noise survey with a portable SWL receiver, and visit a lot of
buildings with elevators. You can do a dnoise/dz sweep as the
elevator climbs.

73's
Richard Clark, KB7QHC

331. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-04 23:32:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12360g3fgj19iaf@corp.supernews.com>
Source record: 61672
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

The coax used for every car radio of that vintage I ever saw (and I saw a lot) doesn't fit your description. It had a single, small diameter (#28 or so) wire rattling around loosely in a thin polyethylene tube, which was covered by a braided shield. The objective was to minimize the capacitance, but there obviously wasn't any control over Z0 or delay, since the small wire was free to move around inside the much larger diameter PE tube. There was no helically wound conductor. I think you might be looking in the wrong place for what you need. The connector fits your description, though.

Roy Lewallen, W7EL

Ronnie wrote:
> Hi,
>
> This is not about ham radio, but rather a general question
> about the type of cable and connectors that were found
> between the antenna and the AM radio in GM cars in the
> 60's. I'm trying to locate some technical information about
> the cable and a source for the cable and connectors.
>
> I have an old airplane autopilot system that uses tuned circuit
> to sense changes in the airplane's attitude and the position of
> the control servos. Distributed variable inductances and
> variable capacitors combine to establish the resonant
> operating frequency of the system. The components are
> connected together with specific lengths of cable and the
> service manual points out that the lengths are critical because
> of the added capacitance of the cable and connectors.
>
> The cable is marked as follows:
>
> "I. T. & T. Federal Cable R.E.C."
>
> It is a shielded cable with a spiral wound center conductor
> that looks very much like the antenna cable I remember finding
> in GM cars in the 60's. It also has the same type of connectors.
> There is a center pin for the center conductor and a metal sleve
> that extents back over the cable and makes a connection with the
> shield and chassis of the radio. Friction holds the connector in
> its mating socket - there are no threads, just a couple of splayed out
> areas on the sleve.
>
> I was hoping one of you might be able to point me to a source

> of technical information about this cable, such as the capacitance
> per unit length, etc. The one piece I have measures about 10.5 pF / foot
> or 415 pF / meter, but my measurements may not be all that accurate.
>
> Also, a source where the cable and connectors can be found today
> would be appreciated.
>
> Thanks in advance for any help.
>
> Ronnie, N5CSE
>
>
>

332. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 00:06:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <bSDYf.44740$_S7.21658@newssvr14.news.prodigy.com>
Source record: 61673

Roy Lewallen wrote:
> Since EZNEC has been mentioned so much lately, it's appropriate to point
> out that it's able to calculate the current at all points along a
> helically modeled loading inductor with what I believe to be very good
> accuracy. And it does it without any use or knowledge of presumed
> traveling voltage or current waves.

Yet, EZNEC reports the difference in standing wave current and
traveling wave current better than you do.

EZNEC correctly reports the phase of the standing wave current to
be essentially zero all up and down a 1/2WL dipole using small wire.

EZNEC correctly reports the phase of the traveling wave current to
be the number of degrees away from the source in a traveling wave
antenna.

EZNEC clearly recognizes the difference between standing wave current
and traveling wave current. Yet you tried to use standing wave current
with its unchanging phase to measure the phase shift through a coil.
Standing wave current doesn't even change phase through 45 degrees
of wire. Why would you expect it to change phase through 45 degrees
of coil?
--
73, Cecil http://www.qsl.net/w5dxp

333. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 00:07:36 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <443309E7.D3413253@earthlink.net>
Source record: 61674
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Ronnie wrote:
>
> Hi,
>
> This is not about ham radio, but rather a general question
> about the type of cable and connectors that were found
> between the antenna and the AM radio in GM cars in the
> 60's. I'm trying to locate some technical information about
> the cable and a source for the cable and connectors.
>
> I have an old airplane autopilot system that uses tuned circuit
> to sense changes in the airplane's attitude and the position of
> the control servos. Distributed variable inductances and
> variable capacitors combine to establish the resonant
> operating frequency of the system. The components are
> connected together with specific lengths of cable and the
> service manual points out that the lengths are critical because
> of the added capacitance of the cable and connectors.
>
> The cable is marked as follows:
>
> "I. T. & T. Federal Cable R.E.C."
>
> It is a shielded cable with a spiral wound center conductor
> that looks very much like the antenna cable I remember finding
> in GM cars in the 60's. It also has the same type of connectors.
> There is a center pin for the center conductor and a metal sleve
> that extents back over the cable and makes a connection with the
> shield and chassis of the radio. Friction holds the connector in
> its mating socket - there are no threads, just a couple of splayed out
> areas on the sleve.
>
> I was hoping one of you might be able to point me to a source
> of technical information about this cable, such as the capacitance
> per unit length, etc. The one piece I have measures about 10.5 pF / foot
> or 415 pF / meter, but my measurements may not be all that accurate.
>
> Also, a source where the cable and connectors can be found today
> would be appreciated.
>
> Thanks in advance for any help.
>
> Ronnie, N5CSE

It was RG62 93 ohm coax. The connectors were called "Motorola"
plugs.
--
Service to my country? Been there, Done that, and I've got my DD214 to
prove it.
Member of DAV #85.

Michael A. Terrell
Central Florida

334. Re: Antenna RF choke questions

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 00:07:51 UTC
From: dplatt@radagast.org
Message-ID: <12362inc65qk6f6@corp.supernews.com>
Source record: 61675

>> 5) One last question - not having to do with the coax RF choke:
>> Cushcraft "operating tips" say to not use vinyl tape on SO239 or PL-239
>> connectors. Why? What problem would the tape cause??
>
>Can't help you there.

My guess is that its biggest problem is that its presence will lead the user to the (false) conclusion that the connectors have actually been waterproofed by the application of the tape.

Based on all I've seen and read, vinyl electrician's tape does a lousy job of waterproofing outdoor connections. Its adhesive doesn't make a good waterproof bond with the connector surface (especially the threaded part), and both the adhesive and the vinyl itself tend to become brittle after a few seasons of exposure to direct sunlight. It'll leak like a sieve, and water will wick into your SO-239/PL-259 connectors and infiltrate the coax.

This tape does a decent job of protecting indoor electrical connections against accidental contact, but it's not good for waterproofing.

I generally prefer a two-layer approach - an inner layer of something adherent to do the actual waterproofing, and an outer layer to protect against sunlight exposure and weathering and abrasion.

For the inner layer, a self-fusing (self-amalgamating) rubber tape such as Daflex Stretch-N-Seal, Plymouth 122, or the like is a good choice. Some people prefer Coax Seal or various mastics, but some of these can be hell to remove from the connector and threads if you ever want to re-work it.

For an outer layer, a brush-on "liquid electrical tape" can be used. Another possibility would be a black cotton "friction tape" - 3M suggests their type 1755 as an outer protection layer for connections insulated with rubber electrical tape.

Even vinyl electrical tape can be used as an outer layer, I think - it doesn't have to be (or remain) waterproof, it just has to remain intact enough to protect the inner layer from direct sunlight.

If you really want to be thorough, insulate and waterproof with self-amalgamating rubber tape, add a layer of frictape for physical protection, and then overpaint with "liquid electrical tape".

--
Dave Platt <dplatt@radagast.org> AE6EO

Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

335. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 00:27:45 UTC
From: - exray - <exray@coqui.net>
Message-ID: <12363o61bhj7g5e@corp.supernews.com>
Source record: 61576
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Michael A. Terrell wrote:

>
>
> It was RG62 93 ohm coax.

Certainly not in older radios. I don't know what they sell nowadays.

I've seen that 'spiral' type of cable. They basically used the spiral as a means of maintaining the centre conductor in the average 'middle' of the hollow dielectric.

The combined inductance and capacitance of the old cable was somewhat critical but the older radios provided an antenna trimmer to compensate for the variations. The electrical model was essentially a "voltage probe" and doesn't necessarily follow common antenna/feedline rules and thought.

-Bill

336. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 01:16:25 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <SpKdnWayKKthha7ZRVn-ug@adelphia.com>
Source record: 61577

Cecil Moore wrote:
> John Popelish wrote:
>
>> Cecil Moore wrote:

>> That is not what the formula says. Pick and X and you get a constant
>> phase angle with respect to the zero degree reference.
>
> But that phase angle is not zero as it is for standing waves.
> You seem to be talking in circles. How can the phase shift
> between the traveling wave and the source reference ever be
> zero at a point 90 degrees away from the source?

I said the phase was was fixed, not zero, at a given position.

> If it cannot,
> then you have evidence that the traveling wave is NOT identical
> to the standing wave as evidenced by their different equations.

I agreed that the pattern of amplitude and phase is different along a line for traveling and standing waves. But at any given point, there is a very similar kind of phasor (one with an amplitude value and a phase value) that describes what is happening at that point. That difference in amplitude distribution and phase shift with respect to position is what the two functions describe.

You keep claiming that there is something fundamentally different about the kind of phasor describing a single point (rotating versus non rotating), depending on whether the phasor is describing a point on a standing or traveling wave. That is where we disagree.

> Let's cut to the bottom line. You seem to believe that standing wave
> current is identical to traveling wave current.

At a point, it certainly can be. How current varies (amplitude and phase) over length is what is different.

> If that's your point, just say so.

I have said so as emphatically as I can, at least a half dozen times. You keep saying I am wrong and refer to rotating phasors and non rotating phasors. The only rotating phasor I know if is when a different (from the reference frequency and phase) frequency is described by phasor notation. That phasor rotates.

> Otherwise, please tell us the difference between the
> standing wave current and the traveling wave current which seems

> obvious to me from the equations.

I have, already. But here goes once again. A current produced by a traveling wave has a constant (RMS) amplitude along the line. The phase of the current (relative to some arbitrary phase reference) varies linearly along the line. If the line is a wavelength or more long, you can find any relative phase you want, just by moving along the line. There is energy moving along the line during this process, but no net (averaged over a cycle) current moving along the line. this is similar to how wave energy moves along the surface of water, without the water traveling along with the wave. The water just moves up and down as the wave passes along its surface. Likewise, charge moves back and forth, locally, within a half wavelength of the line as the wave passes, and the local current is a measure of the rate of this charge movement.

In the case of a pure standing wave, you have the super position of two equal and opposite traveling waves. The current (RMS) magnitude can vary anywhere from zero to twice the (RMS) magnitude of that produced by either of the two traveling waves. The RMS amplitude envelope will vary in a [absolute value of sine] way along the line. The relative phase of the current will have one of two values (the actual angle depending on what phase is chosen as the reference) that are 180 degrees apart. The phase switches between these two values each time you pass through a node in the amplitude distribution. There is no net energy movement, since the movement in one direction is canceled by energy movement in the other direction. There is, however, energy storage on the line.

Since the charge movement in a standing wave is the superposition of the charge movement of two traveling waves, in a standing wave, charge also moves back and forth only within a half wavelength interval of the line. And the standing wave current is the measure of the rate of change in this charge movement as it sloshes back and forth within that half wavelength.

If you have any corrections to any of this, please quote enough of what you what you are correcting for the context to be clear, and have at it. I want to get this right.

337. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 01:18:53 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <SpKdnWGyKKsNhK7ZRVn-ug@adelphia.com>
Source record: 61578

Cecil Moore wrote:

> EZNEC clearly recognizes the difference between standing wave current
> and traveling wave current. Yet you tried to use standing wave current
> with its unchanging phase to measure the phase shift through a coil.
> Standing wave current doesn't even change phase through 45 degrees
> of wire. Why would you expect it to change phase through 45 degrees
> of coil?

Not to be a stickler, but didn't you just chastise me for bringing up
coils, and you said you had no interest in discussing them, because
that subject was closed for you?

Make up your mind, please.

338. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 01:38:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12367rr3qvcg642@corp.supernews.com>
Source record: 61580

John Popelish wrote:
> Cecil Moore wrote:
>
>> EZNEC clearly recognizes the difference between standing wave current
>> and traveling wave current. Yet you tried to use standing wave current
>> with its unchanging phase to measure the phase shift through a coil.
>> Standing wave current doesn't even change phase through 45 degrees
>> of wire. Why would you expect it to change phase through 45 degrees
>> of coil?
>
> Not to be a stickler, but didn't you just chastise me for bringing up
> coils, and you said you had no interest in discussing them, because that
> subject was closed for you?
>
> Make up your mind, please.

And in any case, the statement about EZNEC is incorrect. As I explained in a posting a short while ago, EZNEC has no awareness of nor does it make any use of traveling wave currents or voltages. It calculates only the total current from fundamental rules which don't involve traveling waves.

Roy Lewallen, W7EL

339. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 01:38:25 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44331f91$0$7328$39cecf19@news.twtelecom.net>
Source record: 61579

Cecil Moore wrote:

> w8ji@akorn.net wrote:
>
>> Grow up Cecil. Everyone sees what you are doing.
>
>
> Everyone should see that I am trying to discuss technical
> issues while the rest of you object to the 5% of my postings
> that are bad humor or complaints about how I am being
> unfairly treated.
>
> Why do you refuse to discuss technical issues? For
> instance, you have avoided responding to my black box
> question. Are you afraid everyone will see just
> how wrong you are?
>

No one likes a whiner Cecil. Especially when they appear to be pissing
into the wind.

tom
K0TAR

340. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 01:52:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jl8632hndg59mmbi6bqeo03vr5adomv71q@4ax.com>
Source record: 61581

On Tue, 04 Apr 2006 21:18:53 -0400, John Popelish <jpopelish@rica.net>
wrote:

>Make up your mind, please.
The triumph of experience over hope.

341. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 02:01:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b19632d9lfv521tf6lsol6e7o17unm48sk@4ax.com>
Source record: 61582

On Tue, 04 Apr 2006 19:34:19 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Here is it again assuming a lossless transmission line:
>
>Source-----------a-BB-b-------------c-BB-d-----------open
>
>The current measured at 'a' is one amp.
>The current measured at 'b' is zero amps.
>The current measured at 'c' is zero amps.
>The current measured at 'd' is one amp.
>
>What are the possibilities for what could be in the
>black boxes?

There is a zero length 4th dimensional coax connecting ad and bc
bridging the Casimir void between b and c.

Can you deny the 4th dimension exists?

342. Re: Antenna RF choke questions

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 02:05:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <f8-dnb2ureSnu67ZRVnygw@bt.com>
Source record: 61583

"AK" <nomail@aol.com> wrote in message
news:_7CYf.908089$xm3.833232@attbi_s21...
> Putting together a new Cushcraft A4S (10,15, 20m) beam.
>
> Cushcraft recommends using an 8-turn, 6-inch diameter RG8U coax
cable coil
> as an RF choke for feeding the driven element. HyGain suggested the
same
> thing for the TH2MK3 antenna I used many years ago -- only using 12
turns of
> RG8 (with the 6-inch outside diameter), rather than 8 turns. I have
a few
> questions on the best way to do this.
>
> 1) Is it fair to assume that the more turns the better?
>
> 2) Should the coil be as close to the antenna feedpoint as possible,
or is a
> foot or two of straight coax between the antenna input and the coil
OK?
>
> 3) Would placing the coax coil around the mast (instead of taping
one side
> of the coil to the mast as suggested) be a bad thing to do?
>
> 4) Is there a good website or book that describes the technical
tradeoffs of
> a coax RF choke? (I am sort of wondering if the choke can be
skipped. Some
> time ago, I used a W2AU balun on a multiband dipole. All it did was
create
> TVI when I went on 10 meters. Took the balun out, and the resonant
points
> didn't change. I figured that if there were antenna currents on the
coax,
> they would bring down the resonant frequency without the balun.
Since that
> didn't happen, I figured the balun wasn't helping - - but balun core
> saturation at 30 MHz (with the KW on) was what was racking up the
TVs.)
>
> 5) One last question - not having to do with the coax RF choke:
> Cushcraft "operating tips" say to not use vinyl tape on SO239 or
PL-239

> connectors. Why? What problem would the tape cause??
>
> Thanks for any info - AK
>
==========

A choke made of 8 turns, 6 inches diameter, has a resonant frequency around 21 MHz and has an impedance greater than 1000 ohms in the 20 meter and 10 meter bands.

Chokes are best wound neatly in the form of a single layer solenoid. Jumble wound choke coils can have funny effects.

For design of chokes made with coax cable download program SELFRESS from website below and run immediately.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

343. Re: elevator noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 02:23:46 UTC
From: Doc <ltdoc@yahoo.com>
Message-ID: <1144203594_5151@sp6iad.superfeed.net>
Source record: 61584

In other words, you won't really know till the new system is
actually installed. That means a 50/50 chance for or against.
'Doc

344. Re: Antenna RF choke questions

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 02:46:14 UTC
From: AK <nomail@aol.com>
Message-ID: <WbGYf.666481$084.607593@attbi_s22>
Source record: 61585

Thanks for the reply, Roy.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:123605h66a6vld1@corp.supernews.com...
> AK wrote:
>> Putting together a new Cushcraft A4S (10,15, 20m) beam.
>>
>> Cushcraft recommends using an 8-turn, 6-inch diameter RG8U coax cable
>> coil as an RF choke for feeding the driven element. HyGain suggested the
>> same thing for the TH2MK3 antenna I used many years ago -- only using 12
>> turns of RG8 (with the 6-inch outside diameter), rather than 8 turns. I
>> have a few questions on the best way to do this.
>>
>> 1) Is it fair to assume that the more turns the better?
>
> No. The coil makes a broadly resonant circuit, which greatly increases its
> common mode impedance. Increasing the number of turns will lower it.

So it's not just working on inductance. I'm still wondering why Cushcaft
recommends 8 turns and HyGain 12.

>> 2) Should the coil be as close to the antenna feedpoint as possible, or
>> is a foot or two of straight coax between the antenna input and the coil
>> OK?
>
> No problem.
>
>> 3) Would placing the coax coil around the mast (instead of taping one
>> side of the coil to the mast as suggested) be a bad thing to do?
>
> Probably. It's likely to lower the resonant frequency, reducing the common
> mode impedance.

OK
>>
>> 4) Is there a good website or book that describes the technical tradeoffs
>> of a coax RF choke? (I am sort of wondering if the choke can be skipped.
>> Some time ago, I used a W2AU balun on a multiband dipole. All it did was
>> create TVI when I went on 10 meters. Took the balun out, and the resonant
>> points didn't change. I figured that if there were antenna currents on
>> the coax, they would bring down the resonant frequency without the balun.
>> Since that didn't happen, I figured the balun wasn't helping - - but
>> balun core saturation at 30 MHz (with the KW on) was what was racking up
>> the TVs.)
>

> For general information on baluns and common mode chokes (called "current
> baluns" in the article), see http://eznec.com/Amateur/Articles/Baluns.pdf.
> For dimensions of air core chokes like yours, see the ARRL Handbook.

Very informative; still reading.

> That's an interesting story about the W2DU balun. There must have been a
> huge amount of common mode current, and insufficient balun impedance.

Actually, it was a W2AU (http://www.unadilla.com/w2awire.htm) I used in
the early 70's.

>> 5) One last question - not having to do with the coax RF choke:
>> Cushcraft "operating tips" say to not use vinyl tape on SO239 or PL-239
>> connectors. Why? What problem would the tape cause??
>
> Can't help you there.

Reg thinks it's the tape's lack of water sealing. I have been using some
putty-like sealer on my 239s lately, but it is a mess to clean off when
disconnecting and re-connecting the coax - as sometimes required.
>
> Roy Lewallen, W7EL

73, AK

345. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 02:48:33 UTC
From: Ronnie <rhughes4-removeme@swbell.net>
Message-ID: <5eGYf.62116$H71.61164@newssvr13.news.prodigy.com>
Source record: 61586
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Thanks Bill.

The autopilot service manual I have shows a hand
drawn figure of the cable that indicates a curly or spiral twist
to the center conductor which appears as you stated to help
keep the center conductor in the middle of the tube. It also
mentions that the characteristics and length of the cable is part
of the tuned circuit, but doesn't give any data on the cable.

Like you, I'm sure I've seen that type of cable somewhere in
the past and thought it was in an automotive antenna application,
but it could have been elsewhere.

Ronnie

"- exray -" <exray@coqui.net> wrote in message
news:12363o61bhj7g5e@corp.supernews.com...
> Michael A. Terrell wrote:
>
>
>>
>>
>> It was RG62 93 ohm coax.
>
> Certainly not in older radios. I don't know what they sell nowadays.
>
> I've seen that 'spiral' type of cable. They basically used the spiral as
> a means of maintaining the centre conductor in the average 'middle' of the
> hollow dielectric.
>
> The combined inductance and capacitance of the old cable was somewhat
> critical but the older radios provided an antenna trimmer to compensate
> for the variations. The electrical model was essentially a "voltage
> probe" and doesn't necessarily follow common antenna/feedline rules and
> thought.
>
> -Bill

346. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 02:48:33 UTC
From: Ronnie <rhughes4-removeme@swbell.net>
Message-ID: <5eGYf.62115$H71.16177@newssvr13.news.prodigy.com>
Source record: 61587
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Thanks Roy. Now that you mention it, I do remember
the straight center conductor inside the much larger diameter
PE tube. The autopilot service manual I have shows a hand
drawn figure of the cable that indicates a curly or spiral twist
to the center conductor which appears to help keep the center
conductor in the middle of the tube. I also mentions that the
characteristics and length of the cable is part of the tuned circuit,
but doesn't give any data on the cable.

The connectors are like the connectors that were on the auto
radios back then. I wonder where those could be found today.
I can't seem to find them in any of the distributor catalogs I have.
Maybe a trip to an automobile junk yard.

Ronnie

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:12360g3fgj19iaf@corp.supernews.com...
> The coax used for every car radio of that vintage I ever saw (and I saw a
> lot) doesn't fit your description. It had a single, small diameter (#28 or
> so) wire rattling around loosely in a thin polyethylene tube, which was
> covered by a braided shield. The objective was to minimize the
> capacitance, but there obviously wasn't any control over Z0 or delay,
> since the small wire was free to move around inside the much larger
> diameter PE tube. There was no helically wound conductor. I think you
> might be looking in the wrong place for what you need. The connector fits
> your description, though.
>
> Roy Lewallen, W7EL
>
> Ronnie wrote:
>> Hi,
>>
>> This is not about ham radio, but rather a general question
>> about the type of cable and connectors that were found
>> between the antenna and the AM radio in GM cars in the
>> 60's. I'm trying to locate some technical information about
>> the cable and a source for the cable and connectors.
>>
>> I have an old airplane autopilot system that uses tuned circuit
>> to sense changes in the airplane's attitude and the position of
>> the control servos. Distributed variable inductances and
>> variable capacitors combine to establish the resonant
>> operating frequency of the system. The components are

>> connected together with specific lengths of cable and the
>> service manual points out that the lengths are critical because
>> of the added capacitance of the cable and connectors.
>>
>> The cable is marked as follows:
>>
>> "I. T. & T. Federal Cable R.E.C."
>>
>> It is a shielded cable with a spiral wound center conductor
>> that looks very much like the antenna cable I remember finding
>> in GM cars in the 60's. It also has the same type of connectors.
>> There is a center pin for the center conductor and a metal sleve
>> that extents back over the cable and makes a connection with the
>> shield and chassis of the radio. Friction holds the connector in
>> its mating socket - there are no threads, just a couple of splayed out
>> areas on the sleve.
>>
>> I was hoping one of you might be able to point me to a source
>> of technical information about this cable, such as the capacitance
>> per unit length, etc. The one piece I have measures about 10.5 pF / foot
>> or 415 pF / meter, but my measurements may not be all that accurate.
>>
>> Also, a source where the cable and connectors can be found today
>> would be appreciated.
>>
>> Thanks in advance for any help.
>>
>> Ronnie, N5CSE
>>
>>

347. Re: Antenna RF choke questions

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 03:02:03 UTC
From: AK <nomail@aol.com>
Message-ID: <LqGYf.666506$084.628700@attbi_s22>
Source record: 61588

"AK" <nomail@aol.com> wrote in message
news:WbGYf.666481$084.607593@attbi_s22...
> Thanks for the reply, Roy.
>
>>> 5) One last question - not having to do with the coax RF choke:
>>> Cushcraft "operating tips" say to not use vinyl tape on SO239 or PL-239
>>> connectors. Why? What problem would the tape cause??
>>
>> Can't help you there.
>
> Reg

Please make that "Dave Platt" --

>thinks it's the tape's lack of water sealing. I have been using some
>putty-like sealer on my 239s lately, but it is a mess to clean off when
>disconnecting and re-connecting the coax - as sometimes required.
>>
>> Roy Lewallen, W7EL
>
> 73, AK

348. Re: Antenna RF choke questions

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 03:05:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qtc632hh3hjcp8an0hmilvlhcoe48tm8u1@4ax.com>
Source record: 61589

On Wed, 05 Apr 2006 02:46:14 GMT, "AK" <nomail@aol.com> wrote:

>Reg thinks it's the tape's lack of water sealing. I have been using some
>putty-like sealer on my 239s lately, but it is a mess to clean off when
>disconnecting and re-connecting the coax - as sometimes required.

Hi OM,

Lay down a layer of tape first.
Seal it with the sealer (much cheaper from flower shops).
Lay down another layer of tape.

73's
Richard Clark, KB7QHC

349. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 03:12:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <OAGYf.66613$dW3.16310@newssvr21.news.prodigy.com>
Source record: 61590

John Popelish wrote:
> I said the phase was was fixed, not zero, at a given position.

So the phase is NOT the same between the standing waves and the
traveling waves proving that standing waves are different from
traveling waves. Like I said, we seem to be going in circles.

> I agreed that the pattern of amplitude and phase is different along a
> line for traveling and standing waves.

Then why are you arguing with me about it. That's what I also
believe. Your argument seems to be with the people who say,
"current is current".

> You keep claiming that there is something fundamentally different about
> the kind of phasor describing a single point (rotating versus non
> rotating), depending on whether the phasor is describing a point on a
> standing or traveling wave. That is where we disagree.

Yes, 45 degrees is fundamentally different from zero, is it not?
Let's see, the percentage difference is (45-0)/0.

>> Let's cut to the bottom line. You seem to believe that standing wave
>> current is identical to traveling wave current.
>
> At a point, it certainly can be.

No it isn't. It is the lack of knowledge that causes one to assume
that. More knowledge is all it takes to tell the difference. If
the current is everywhere in phase with the source current, it is
standing wave current. If the current is only in phase with the
source current every 360 degrees, it is traveling wave current.

> If you have any corrections to any of this, please quote enough of what
> you what you are correcting for the context to be clear, and have at
> it. I want to get this right.

We seem to be in basic agreement that traveling wave current is not
identical to standing wave current so what are we arguing about?
--
73, Cecil http://www.qsl.net/w5dxp

350. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 03:16:05 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <VDGYf.66614$dW3.56449@newssvr21.news.prodigy.com>
Source record: 61591

John Popelish wrote:

> Cecil Moore wrote:
>
>> EZNEC clearly recognizes the difference between standing wave current
>> and traveling wave current. Yet you tried to use standing wave current
>> with its unchanging phase to measure the phase shift through a coil.
>> Standing wave current doesn't even change phase through 45 degrees
>> of wire. Why would you expect it to change phase through 45 degrees
>> of coil?
>
> Not to be a stickler, but didn't you just chastise me for bringing up
> coils, and you said you had no interest in discussing them, because that
> subject was closed for you?
>
> Make up your mind, please.

My comment above is primarily about standing wave current,
not about coils. Standing wave current phase cannot be used
to measure the phase shift through empty space, wires, or
anything else.
--
73, Cecil http://www.qsl.net/w5dxp

351. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 03:23:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <NKGYf.66617$dW3.887@newssvr21.news.prodigy.com>
Source record: 61592

Roy Lewallen wrote:
> And in any case, the statement about EZNEC is incorrect. As I explained
> in a posting a short while ago, EZNEC has no awareness of nor does it
> make any use of traveling wave currents or voltages. It calculates only
> the total current from fundamental rules which don't involve traveling
> waves.

EZNEC reports a different phase for traveling wave currents than
it does for standing wave currents. It does know the difference
although I don't know how it knows. It recognizes the difference
between a terminated line with no reflections and an unterminated
line with reflections.

The current reported by EZNEC for a terminated rhombic, for
instance, is clearly traveling wave current since the phase
changes with distance from the source.

The current reported by EZNEC for a 1/2WL dipole, for instance,
is clearly standing wave current since the phase doesn't
change with distance from the source.

The two kinds of currents are clearly not identical in either
EZNEC or in reality. They are only identical in some human
minds.
--
73, Cecil http://www.qsl.net/w5dxp

352. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 03:24:06 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qLGYf.66619$dW3.2374@newssvr21.news.prodigy.com>
Source record: 61593

Tom Ring wrote:
> No one likes a whiner Cecil.

Then please stop whining. :-)
--
73, Cecil http://www.qsl.net/w5dxp

353. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 03:32:17 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <uJGdneWWU8hJpa7ZRVn-rQ@adelphia.com>
Source record: 61594

Cecil Moore wrote:

> My comment above is primarily about standing wave current,
> not about coils. Standing wave current phase cannot be used
> to measure the phase shift through empty space, wires, or
> anything else.

Sure it can. You just haven't yet figured out how to do it.

Here is a hint.
Standing wave current and voltage is not all the same phase.
Go far enough down the line, and there is a change.
How far is far enough?

354. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 03:33:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <3UGYf.66620$dW3.37047@newssvr21.news.prodigy.com>
Source record: 61595

John Popelish wrote:

> Cecil Moore wrote:
>> Standing wave current phase cannot be used
>> to measure the phase shift through empty space, wires, or
>> anything else.
>
> Sure it can. You just haven't yet figured out how to do it.
>
> Here is a hint.
> Standing wave current and voltage is not all the same phase.
> Go far enough down the line, and there is a change.
> How far is far enough?

My comment above is about 1/2WL dipoles and 1/4WL monopoles.
In those antennas, the standing wave current phase is fixed
around zero degrees. It cannot be used to measure delay
through anything.

The 180 degree phase shift in longer antennas doesn't add
any additional information. Since the amplitude is zero
at that point, we already have all the phase information
that we are going to get. We know at the zero point that
the forward current and reflected current are 180 degrees
out of phase.
--
73, Cecil http://www.qsl.net/w5dxp

355. Re: Antenna RF choke questions

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 03:40:54 UTC
From: AK <nomail@aol.com>
Message-ID: <a%GYf.666557$084.492516@attbi_s22>
Source record: 61596

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:f8-dnb2ureSnu67ZRVnygw@bt.com...
> ==
>
> A choke made of 8 turns, 6 inches diameter, has a resonant frequency
> around 21 MHz and has an impedance greater than 1000 ohms in the 20
> meter and 10 meter bands.

Thanks Reg. I'm wondering now what 12 turns would work out to??

> Chokes are best wound neatly in the form of a single layer solenoid.
> Jumble wound choke coils can have funny effects.

Mine is a single layer with lots of electrical tape keeping the turns close
and pretty much all the same.

> For design of chokes made with coax cable download program SELFRESS
> from website below and run immediately.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....

Thanks again, and 73 - AK

356. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 04:00:23 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <AhHYf.32$jZ5.26@fe11.lga>
Source record: 61597

<w8ji@akorn.net> wrote in message
news:1144189479.684490.115390@z34g2000cwc.googlegroups.com...
>
> Yuri Blanarovich wrote:
>> We are having problem with people admitting there could be difference in
>> the
>> current across loading coils, and here the "problems" is what is the
>> error?
>> So lets stick to the big problem and fuggettabout detours and nitpicking.
>> Yuri, K3BU
>
> Yuri,
> Rather than playing like Cecil and making words for others, please post
> the dates and statements made by people who say current cannot be
> uneven at each end of a coil.
>

Now it's "cannot be uneven?"

Your own words:
To which W8JI replied:

"The idea current is high in only the start of a coil is not correct.
Model an antenna with EZnec, and look at the load. Model a coil in any
software, and look at current. Read any textbook, even beginner's textbooks,
and see what they say. Measure a real antenna yourself!
......

You are like to call names, insult people, and argue rather than take the
time to learn basic electronics. This is in any book, including the ARRL
Handbook. If you look at HOW an inductor works, the current flowing in one
terminal ALWAYS equals the current flowing out the other terminal.

and.....

Measuring the current into and out of the loading coil with a small
thermocouple RF meter, I detect no difference This is in close agreement
with the model. " "

> Show us where that is said with an exact in context quote, don't pull a
> Cecil and invent something that you expect us to blindly accept as the
> truth.
> It would help if we knew what you were talking about.
> 73 Tom
>

You still don't know what are we talking about?
Cecil is playing? Can you answer questions that he posted and I posted?

73 Yuri

357. Re: Antenna RF choke questions

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 04:25:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1236hl8oko2m822@corp.supernews.com>
Source record: 61598

AK wrote:
> . . .
>> That's an interesting story about the W2DU balun. There must have been a
>> huge amount of common mode current, and insufficient balun impedance.
>
> Actually, it was a W2AU (http://www.unadilla.com/w2awire.htm) I used in
> the early 70's.

My mistake -- major difference. The W2AU balun was a voltage balun, so it had an extra winding connected between the two conductors. There's lots of opportunity there to produce huge fields in the ferrite.

Roy Lewallen, W7EL

358. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 04:30:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ZJHYf.12074$tN3.6315@newssvr27.news.prodigy.net>
Source record: 61599

Roy Lewallen wrote:
> And in any case, the statement about EZNEC is incorrect. As I explained
> in a posting a short while ago, EZNEC has no awareness of nor does it
> make any use of traveling wave currents or voltages. It calculates only
> the total current from fundamental rules which don't involve traveling
> waves.

For anyone who thinks EZNEC doesn't report traveling wave currents
differently from standing wave currents, please download the following
files.

http://www.qsl.net/w5dxp/testx.EZ

This is a *traveling wave file*. EZNEC reports the nearly linear phase
of the current from 0 degrees at the source to 90 degrees at the load.
The file comes with a zero load in the center of that 90 degree run.
EZNEC reports the current's phase at 45 degrees at that zero load.

http://www.qsl.net/w5dxp/testy.EZ

Removing the resistive load from testx.EZ turns it into a *standing
wave configuration*. EZNEC reports the phase of the current close
to zero degrees all up and down the wire. The file comes with a
zero load in the center of the same wire as above. EZNEC reports
the current's phase very near zero degrees. The phase is near zero
degrees all up and down wire 2.

Contrary to what you have been told, EZNEC clearly reports the
difference between the traveling wave configuration and the
standing wave configuration. The traveling wave current phase
can be used to measure the phase shift through the wire (or
through a coil). The standing wave current phase cannot.

To summarize: For the traveling wave configuration, the current
magnitude is essentially constant all up and down the line while
the phase shifts smoothly from zero degrees at the source to
90 degrees at the resistive load.

For the standing wave configuration, the current magnitude
follows the familiar cosine envelope from source at zero
degrees to the end of the antenna at 90 degrees. The phase
of the standing wave current is unchanging near zero degrees
all up and down the wire.
--
73, Cecil http://www.qsl.net/w5dxp

359. Re: The Seven Warning Signs of Bogus Science

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 04:32:12 UTC
From: cliff wright <c.c.wright@paradise.net.nz>
Message-ID: <4433484d@clear.net.nz>
Source record: 61600

Dave Oldridge wrote:
> cliff wright <c.c.wright@paradise.net.nz> wrote in news:4430a096
> @clear.net.nz:
>
>
>>Irv Finkleman wrote:
>>
>>>I thought this article might be of interest in that we often see
>>>claims about certain types of antennas which fall into the
>>>category.
>>>
>>>From
>>>http://chronicle.com/free/v49/i21/21b02001.htm
>>>
>>>POINT OF VIEW
>>>The Seven Warning Signs of Bogus Science
>>>By ROBERT L. PARK
>>>
>>>The National Aeronautics and Space Administration is investing close
>
> to
>
>>>a million dollars in an obscure Russian scientist's antigravity
>>>machine, although it has failed every test and would violate the most
>>>fundamental laws of nature. The Patent and Trademark Office recently
>>>issued Patent 6,362,718 for a physically impossible motionless
>>>electromagnetic generator, which is supposed to snatch free energy
>
> from
>
>>>a vacuum. And major power companies have sunk tens of millions of
>>>dollars into a scheme to produce energy by putting hydrogen atoms into
>>>a state below their ground state, a feat equivalent to mounting an
>>>expedition to explore the region south of the South Pole.
>>>
>>>There is, alas, no scientific claim so preposterous that a scientist
>>>cannot be found to vouch for it. And many such claims end up in a
>
> court
>
>>>of law after they have cost some gullible person or corporation a lot
>>>of money. How are juries to evaluate them?
>>>
>>>Before 1993, court cases that hinged on the validity of scientific

>>>claims were usually decided simply by which expert witness the jury
>>>found more credible. Expert testimony often consisted of tortured
>>>theoretical speculation with little or no supporting evidence. Jurors
>>>were bamboozled by technical gibberish they could not hope to follow,
>>>delivered by experts whose credentials they could not evaluate.
>>>
>>>In 1993, however, with the Supreme Court's landmark decision in
>
> Daubert
>
>>>v. Merrell Dow Pharmaceuticals, Inc. the situation began to change.
>
> The
>
>>>case involved Bendectin, the only morning-sickness medication ever
>>>approved by the Food and Drug Administration. It had been used by
>>>millions of women, and more than 30 published studies had found no
>>>evidence that it caused birth defects. Yet eight so-called experts
>
> were
>
>>>willing to testify, in exchange for a fee from the Daubert family,
>
> that
>
>>>Bendectin might indeed cause birth defects.
>>>
>>>In ruling that such testimony was not credible because of lack of
>>>supporting evidence, the court instructed federal judges to serve as
>>>"gatekeepers," screening juries from testimony based on scientific
>>>nonsense. Recognizing that judges are not scientists, the court
>
> invited
>
>>>judges to experiment with ways to fulfill their gatekeeper
>>>responsibility.
>>>
>>>Justice Stephen G. Breyer encouraged trial judges to appoint
>>>independent experts to help them. He noted that courts can turn to
>>>scientific organizations, like the National Academy of Sciences and
>
> the
>
>>>American Association for the Advancement of Science, to identify
>>>neutral experts who could preview questionable scientific testimony
>
> and
>
>>>advise a judge on whether a jury should be exposed to it. Judges are
>>>still concerned about meeting their responsibilities under the Daubert

>>>decision, and a group of them asked me how to recognize questionable
>>>scientific claims. What are the warning signs?
>>>
>>>I have identified seven indicators that a scientific claim lies well
>>>outside the bounds of rational scientific discourse. Of course, they
>>>are only warning signs -- even a claim with several of the signs could
>>>be legitimate.
>>>
>>>1. The discoverer pitches the claim directly to the media. The
>>>integrity of science rests on the willingness of scientists to expose
>>>new ideas and findings to the scrutiny of other scientists. Thus,
>>>scientists expect their colleagues to reveal new findings to them
>>>initially. An attempt to bypass peer review by taking a new result
>>>directly to the media, and thence to the public, suggests that the
>
> work
>
>>>is unlikely to stand up to close examination by other scientists.
>>>
>>>One notorious example is the claim made in 1989 by two chemists from
>>>the University of Utah, B. Stanley Pons and Martin Fleischmann, that
>>>they had discovered cold fusion -- a way to produce nuclear fusion
>>>without expensive equipment. Scientists did not learn of the claim
>>>until they read reports of a news conference. Moreover, the
>>>announcement dealt largely with the economic potential of the
>
> discovery
>
>>>and was devoid of the sort of details that might have enabled other
>>>scientists to judge the strength of the claim or to repeat the
>>>experiment. (Ian Wilmut's announcement that he had successfully cloned
>>>a sheep was just as public as Pons and Fleischmann's claim, but in the
>>>case of cloning, abundant scientific details allowed scientists to
>>>judge the work's validity.)
>>>
>>>Some scientific claims avoid even the scrutiny of reporters by
>>>appearing in paid commercial advertisements. A health-food company
>>>marketed a dietary supplement called Vitamin O in full-page newspaper
>>>ads. Vitamin O turned out to be ordinary saltwater.
>>>
>>>2. The discoverer says that a powerful establishment is trying to
>>>suppress his or her work. The idea is that the establishment will
>>>presumably stop at nothing to suppress discoveries that might shift
>
> the
>
>>>balance of wealth and power in society. Often, the discoverer
>
> describes
>

>>>mainstream science as part of a larger conspiracy that includes
>>>industry and government. Claims that the oil companies are frustrating
>>>the invention of an automobile that runs on water, for instance, are a
>>>sure sign that the idea of such a car is baloney. In the case of cold
>>>fusion, Pons and Fleischmann blamed their cold reception on physicists
>>>who were protecting their own research in hot fusion.
>>>
>>>3. The scientific effect involved is always at the very limit of
>>>detection. Alas, there is never a clear photograph of a flying saucer,
>>>or the Loch Ness monster. All scientific measurements must contend
>
> with
>
>>>some level of background noise or statistical fluctuation. But if the
>>>signal-to-noise ratio cannot be improved, even in principle, the
>
> effect
>
>>>is probably not real and the work is not science.
>>>
>>>Thousands of published papers in para-psychology, for example, claim
>
> to
>
>>>report verified instances of telepathy, psychokinesis, or
>
> precognition.
>
>>>But those effects show up only in tortured analyses of statistics. The
>>>researchers can find no way to boost the signal, which suggests that
>
> it
>
>>>isn't really there.
>>>
>>>4. Evidence for a discovery is anecdotal. If modern science has
>
> learned
>
>>>anything in the past century, it is to distrust anecdotal evidence.
>>>Because anecdotes have a very strong emotional impact, they serve to
>>>keep superstitious beliefs alive in an age of science. The most
>>>important discovery of modern medicine is not vaccines or antibiotics,
>>>it is the randomized double-blind test, by means of which we know what
>>>works and what doesn't. Contrary to the saying, "data" is not the
>>>plural of "anecdote."
>>>
>>>5. The discoverer says a belief is credible because it has endured for
>>>centuries. There is a persistent myth that hundreds or even thousands
>>>of years ago, long before anyone knew that blood circulates throughout

>>>the body, or that germs cause disease, our ancestors possessed
>>>miraculous remedies that modern science cannot understand. Much of
>
> what
>
>>>is termed "alternative medicine" is part of that myth.
>>>
>>>Ancient folk wisdom, rediscovered or repackaged, is unlikely to match
>>>the output of modern scientific laboratories.
>>>
>>>6. The discoverer has worked in isolation. The image of a lone genius
>>>who struggles in secrecy in an attic laboratory and ends up making a
>>>revolutionary breakthrough is a staple of Hollywood's science-fiction
>>>films, but it is hard to find examples in real life. Scientific
>>>breakthroughs nowadays are almost always syntheses of the work of many
>>>scientists.
>>>
>>>7. The discoverer must propose new laws of nature to explain an
>>>observation. A new law of nature, invoked to explain some
>
> extraordinary
>
>>>result, must not conflict with what is already known. If we must
>
> change
>
>>>existing laws of nature or propose new laws to account for an
>>>observation, it is almost certainly wrong.
>>>
>>>I began this list of warning signs to help federal judges detect
>>>scientific nonsense. But as I finished the list, I realized that in
>
> our
>
>>>increasingly technological society, spotting voodoo science is a skill
>>>that every citizen should develop.
>>>
>>>Robert L. Park is a professor of physics at the University of Maryland
>>>at College Park and the director of public information for the
>
> American
>
>>>Physical Society. He is the author of Voodoo Science: The Road From
>>>Foolishness to Fraud (Oxford University Press, 2002).
>>>
>>>http://chronicle.com
>>>Section: The Chronicle Review
>>>Volume 49, Issue 21, Page B20
>>
>>Some good points there Irv!

>>7. Is very interesting though. I'm an amateur astronomer as well as a
>
> ham
>
>>and I'm frequently amused, or saddened, by some of the extreme efforts
>>to "save" the "Big Bang" theory.
>>One recent one had negative mass matter, a cosmic repulsion force which
>>has never been observed and cold dark invisible matter all brought in.
>>Of course there are WIMPS MACHOS and a period of inflation at many
>
> times
>
>>the speed of light involved too.
>>To me that makes the "Big Bang" a very suspect theory!!
>
>
> It IS very suspect. The trouble is, nobody has an iota of a clue what to
> replace it with. And this will probably remain the case until we have
> some solid quantum theory of gravity to work with.
>
>
>>And that IS the position of many of the "establishment" cosmologists!
>>These problems are not just on the science "fringe" unfortunately.
>>A couple of brave souls recently proposed the simple expedient of very
>>slighty modifing the inverse square law of gravity at vast distances.
>>It seems to explain many problems of current theories, but it was
>>"jumped on" from a great height by scientists who don't ever seem to
>>have heard of Occam's razor.
>
>
> Yes...very often the replacement "laws of nature" turn out to approximate
> very closely to the ones we had before. After all, a "law of nature" is
> really just a VERY persistent (and often mathematical) observation about
> nature.
>
>
>>Regards Cliff wright.
>>
>>BTW I have a bet with several of my old colleagues at Auckland
>>university that LIGO won't detect any "gravitational waves"
>>So far it has been about 3 years and I haven't had to pay out.
>
>
> But we ARE dealing with a phenomenon that is at the limit of detection
> here.
>
>
Hi Dave.
A very interesting reply. Just recently I tried to get answers about
the actual mechanism for detecting "Gravity Waves".

I know I'm getting on a bit and retired, but I still get very supicious of claims based solely on advanced Mathematics which the "claimers" cannot explain in some terms which would be understandable to a person with a knowledge of Physics to say, Batchelor degree level.
Just how self checking is some of this work?
Some of the answers re LIGO seemed to imply that all 3 spatial dimensions are affected by the passage of a "Gravity Wave".
How does one detect that when your whole measuring apparatus is affected at the same time.
The other thing that has made me a little dubious has been that the claimed sensitivity of LIGO appears to have been downgraded by 2 orders of magnitude after it was completed in its first form.
Some while ago their site was actually downplaying whether they would ever detect a signal at all. Hopefully time will tell. In fact it would be nice to be proved wrong.

I think we are in very good agreement re the "Big Bang" theory.
The book of Genisis is the main source of inspiration for it I reckon!
Problem is so many astronomers who have sought for evidence for an alternative have had a very hard time from the establishment.
I have actually seen this myself at University level, with students getting marked down for just questioning the theory.

Of course I'm old enough to remember when "plate tectonics" was a heresy, and we all know what happened there.

Best Regards Cliff Wright.

360. Thin & Fat Yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 05:35:23 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <vGIYf.126985$g47.116874@tornado.tampabay.rr.com>
Source record: 61602

Take 2 Yagis or verticals built with aluminum tubing. Both are identical except the tubing in one is twice the diameter of the other. Besides size, what will the property differences be between the two? Will they load up the same? I don't mean to be flippant, but this question has been on my mind for a long time and I couldn't find the answer. All comments appreciated. Thank you.

73's, west
AF4GC

361. Factory pressed dvd movies, ps2, psp & xbox backups for sale !!!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 06:49:51 UTC
From: glow2@spankthedonkey.com
Message-ID: <1144219790.951901.140910@i40g2000cwc.googlegroups.com>
Source record: 61603
Cross-posted to: fa.freebsd.cvs-all,rec.radio.amateur.antenna,rec.collecting,alt.games.video.xbox

We're offering all the latest factory pressed high quality dvd movies, ps2, psp and xbox silvers with factory printed colour inserts at fantastic prices, whether for personal use or reselling. We're shipping worldwide with various shipping methods. For resellers, please contact us for bulk discounts.

For a complete list and prices, please email us at movieworld@time.net.my

(Please state the type of list that you want and tell us your location as the prices varies for different locations. If you're reseller, please state the quantity you wish to order per shipment and we'll quote you a wholesale price depending on the quantity ordered.)

* If you need references, we can provide them to you.

362. DELTA LOOP Antenna calculator

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 08:39:14 UTC
From: oli <oli004@wanadoo.fr>
Message-ID: <44338235$0$21261$8fcfb975@news.wanadoo.fr>
Source record: 61604

Good morning gentlemen,

I have put online few weeks ago, a DELTA LOOP antenna calculator on the antenna-street web site.

This is easy to use html page, you just have to specify your work frequency and the number of elements that you want and the page

calculate all dimensions.

you can try it before to read the other part of this mail :
http://www.antenna-street.com/delta-loop-1en.php

(Note : other band will be available soon)

Well,

Now I would like to do better, and I would like to generate automatiquely a MMANA file from wich will be available directly by the soft to viw diagrams and most importants values (gain, swr, front/back dB etc.)

Actualy, MMANA file is like a txt file with an .maa extension. then I think that it could be possible to generate a file from a php page.

Maybe, some of you have already try to do it, then if you have any informations wich can help me to do it, it will be very appreciate.

Best regards,

Oli

363. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 08:58:36 UTC
From: w8ji@akorn.net
Message-ID: <1144227516.569973.257170@u72g2000cwu.googlegroups.com>
Source record: 61605

Yuri Blanarovich wrote:
> Your own words:
> To which W8JI replied:
>
> "The idea current is high in only the start of a coil is not correct.
> Model an antenna with EZnec, and look at the load. Model a coil in any
> software, and look at current. Read any textbook, even beginner's textbooks,
> and see what they say. Measure a real antenna yourself!

Where is the entire context of that comment Yuri? You (and Cecil) have the habit of extracting things from context of a larger statement and exaggerating or putting a creative spin on what others say.

If you were saying the current is high only in the first few turns of a coil that is not in a high order self-resonance, that is incorrect.

If you were saying the current is high in only the first few turns your statement was incorrect.

If you were saying it had something to do with a cosign shape, your statement was not correct.

Saying the current is NOT high in only the first few turns in a loading coil in a working system is NOT the same as saying the current does not vary or cannot vary.

> You are like to call names, insult people, and argue rather than take the
> time to learn basic electronics. This is in any book, including the ARRL
> Handbook. If you look at HOW an inductor works, the current flowing in one
> terminal ALWAYS equals the current flowing out the other terminal.

That's true. The only thing that causes any differential is when the inductor has significant stray C to the outside world compared to the "through" impedance. Current can't just vanish.

I think that was explained at the same time. As I recall the conversation, you were claiming current followed the same taper as the antenna area it replaced and claiming only the first few turns had high current. You claimed coil Q didn't matter because most of the current was high only in a few turns.

I was trying to point out that idea, that the Q does not matter and the current is high only in the first few turns, is not correct by giving examples where we cannot measure the change with thermal couple meters.

> and.....
>

> Measuring the current into and out of the loading coil with a small
> thermocouple RF meter, I detect no difference This is in close agreement
> with the model. " "

Measurements are at:

http://www.w8ji.com/mobile_antenna_current_measurements_at_w8ji.htm

> You still don't know what are we talking about?
> Cecil is playing? Can you answer questions that he posted and I posted?

I've tried to answer every question Yuri, as have others. Does this
help clear up what I was trying to say?

As I recall you were claiming Q did not matter because current was high
only in the first few turns of a loading coil.

I pointed out Q does not matter as people expect for a different
reason. The real reason Q does not have the large effect on FS is
ground losses in the system swamp out the effects of coil ESR.

You said current difference was directly related to antenna area the
loading coil replaced, that the loading coil had to have the same
current slope as the area of antenna it replaced. If it replaced 80
degrees of antenna, it had to have the same current differential as
that 80 degrees of antenna. Is that correct, or did I misunderstand
you?

I was giving counter-points to that claim.

For example I posted this:

http://www.w8ji.com/agreeing_measurements.htm

Do you disagee with anything I say or Roy said when it is in context of
the overall discussion??

73 Tom

364. Re: elevator noise?/sheilding tricks?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 09:54:31 UTC
From: ml <m@di.net>
Message-ID: <m-33EE55.05543105042006@news.verizon.net>
Source record: 61606

In article <1144203594_5151@sp6iad.superfeed.net>,
Doc <ltdoc@yahoo.com> wrote:

> In other words, you won't really know till the new system is
> actually installed. That means a 50/50 chance for or against.
> 'Doc

thanks all, that responded

guess i'll have to wait and see,

i wouldn't mind doing a survey however i'd have no way to really know in
the residential area i live which building have electroic elevator
controllers or not , can't tell from outside and can't really poke
around

OK i guess a better question might have been:

so if the controllers give off bad rf

what is the best way to 'shield' those boxes so they won't bother my
antennas outside the room?

presume that i can ground the cabinents myself if they are not already .

thanks

365. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 11:32:51 UTC
From: Jeff <jeff@local.host>
Message-ID: <e109sn$jr0$1@emma.aioe.org>
Source record: 61607
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Those connectors are still in use today in UK & Europe at least. A UK supplier is Maplin electronics.

www.maplin.co.uk part no HHH12N

Reagrds
Jeff

366. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 11:57:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ugOYf.64521$Jd.33372@newssvr25.news.prodigy.net>
Source record: 61608

Ian White GM3SEK wrote:
> In an Internet discussion, everybody has the right to attempt to switch
> the discussion away from the point.

Everybody seems to understand how a coil works. Very few
people understand how standing waves work. There's no point
in discussing what people already understand. There's every
point in discussing what people don't understand.
--
73, Cecil http://www.qsl.net/w5dxp

367. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 12:01:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0kOYf.64522$Jd.27816@newssvr25.news.prodigy.net>
Source record: 61609

w8ji@akorn.net wrote:
>>... the current flowing in one
>>terminal ALWAYS equals the current flowing out the other terminal.
>
> That's true.

That's essentially true for forward current and reflected
current. Demonstrably not true for standing wave current.
Even your own measurements showed that the current at one
end of the coil is RARELY equal to the current at the
other end of the coil.
--
73, Cecil http://www.qsl.net/w5dxp

368. Re: Thin & Fat Yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 12:26:57 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <wIOYf.40$Wq3.9@fe12.lga>
Source record: 61610

"west" <westley@tampabay.rr.com> wrote in message
news:vGIYf.126985$g47.116874@tornado.tampabay.rr.com...
> Take 2 Yagis or verticals built with aluminum tubing. Both are identical
> except the tubing in one is twice the diameter of the other. Besides size,
> what will the property differences be between the two? Will they load up
> the same? I don't mean to be flippant, but this question has been on my
> mind for a long time and I couldn't find the answer. All comments
> appreciated. Thank you.
>
> 73's, west
> AF4GC
>
>

If the lenghth of the elements is the same and diameter is thicker, then the antenna with thicker elements will resonate lower on frequency. You need to shorten the elements on the fat one to bring it back to resonance. The fater elements provide broader bandwidth too and take more punishment.

Yuri, K3BU

369. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 12:33:10 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <4433b845_3@newsfeed.slurp.net>
Source record: 61611

> Richard Clark wrote:
>> Any association between resonance, velocity of propagation, height,
>> width, etc. and something like our 118.60ï¿½ tall antenna needs a heap
>> more explaining than resonance, velocity of propagation, height, width,
>> etc.

Now responding specifically to your request for a heap of explaining, you will find it in the George Brown paper I referenced earlier in this sub-thread. As that IRE paper from 1945 may be difficult to access now, you could refer to section 4-2 on the subject of cylindrical antennas in the "Antenna Engineering Handbook," 2nd edition (pub. 1984), by Johnson and Jasik -- from which this quote:

"In practive the antenna is always fed by a transmission line. ... The effective terminal impedance of the line (often referred to as the antenna impedance) then depends not only on the length and diameter but also on the terminal condition."

The text continues that for a MW monopole, the terminal condition consists of the characteristics of the ground plane. This section includes the plots of resistance and reactance for monopole radiators of various height to width ratios from George Brown's 1945 IRE paper.

RF

370. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 12:40:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <uVOYf.64527$Jd.56001@newssvr25.news.prodigy.net>
Source record: 61612

Cecil Moore wrote:

The testx.EZ file has been renamed to:

http://www.qsl.net/w5dxp/TravWave.EZ

The testy.EZ file has been renamed to:

http://www.qsl.net/w5dxp/StndWave.EZ

The current reported by EZNEC for TravWave.EZ contains the term
cos(kz+wt) It's a traveling wave current, clearly not the same
as a standing wave current.

The current reported by EZNEC for StndWave.EZ contains the terms
cos(kz)*cos(wt) It's a standing wave current, clearly not the
same as a traveling wave current.

Current reported by EZNEC every 10% of wire #2 is presented in
the following table. The currents are obviously very different.
The phase of the traveling wave progresses from 0 to 90 deg
in 90 deg of wire. The phase of the standing wave doesn't
progress beyond 0.11 of of degree.

% along current in current in
wire #2 TravWave.EZ StndWave.EZ

0% 0.9998 at -0.99 deg 0.9996 at 0 deg
10% 0.9983 at -9.39 deg 0.9843 at -0.03 deg
20% 0.9983 at -18.23 deg 0.9454 at -0.05 deg
30% 0.9957 at -27.59 deg 0.8843 at -0.06 deg
40% 0.9949 at -35.96 deg 0.8023 at -0.08 deg
50% 0.9945 at -44.84 deg 0.7014 at -0.09 deg
60% 0.9945 at -54.2 deg 0.584 at -0.09 deg
70% 0.9949 at -62.58 deg 0.4528 at -0.1 deg
80% 0.9956 at -71.43 deg 0.311 at -0.11 deg
90% 0.9965 at -80.27 deg 0.1616 at -0.11 deg
100% 0.9976 at -89.14 deg 0.006073 at -0.11 deg

Some say "current is current". EZNEC disagrees. When
reflected waves are eliminated, EZNEC indeed does accurately
report traveling wave current. EZNEC reports the current
that is there, whether it is traveling wave current or
standing wave current.

I'm trying to learn how to graph the above current magnitude
and phase in Mathcad but not having much luck.
--

73, Cecil http://www.qsl.net/w5dxp

371. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 12:56:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <H7PYf.64528$Jd.39717@newssvr25.news.prodigy.net>
Source record: 61613

Cecil Moore wrote:
> % along current in current in
> wire #2 TravWave.EZ StndWave.EZ
>
> 0% 0.9998 at -0.99 deg 0.9996 at 0 deg
> 10% 0.9983 at -9.39 deg 0.9843 at -0.03 deg
> 20% 0.9983 at -18.23 deg 0.9454 at -0.05 deg
^^^^^^
Sorry, a typo. Should be 0.9969

> 30% 0.9957 at -27.59 deg 0.8843 at -0.06 deg
> 40% 0.9949 at -35.96 deg 0.8023 at -0.08 deg
> 50% 0.9945 at -44.84 deg 0.7014 at -0.09 deg
> 60% 0.9945 at -54.2 deg 0.584 at -0.09 deg
> 70% 0.9949 at -62.58 deg 0.4528 at -0.1 deg
> 80% 0.9956 at -71.43 deg 0.311 at -0.11 deg
> 90% 0.9965 at -80.27 deg 0.1616 at -0.11 deg
> 100% 0.9976 at -89.14 deg 0.006073 at -0.11 deg

--
73, Cecil http://www.qsl.net/w5dxp

372. New program. Input Z of a loaded line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 13:18:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <AMqdnbUlf9hOXq7ZRVny1A@bt.com>
Source record: 61614

NOW AVAILABLE ** New Program "INPUT_Z.exe"

This program calculates the often required input impedance, Z = R+jX,
of a coaxial transmission line when terminated with a load impedance
such as a radio antenna. It uses full classical transmission line
formulae and therefore avoids the errors inherent in the Smith Chart
at the lower radio frequencies.

Also calculated are line attenuation, reflection coefficient, angle of
reflection coefficient, SWR, power efficiency, and the line loss in
decibels in the presence of SWR.

Input data of frequency, line length, load resistance and load
reactance can be varied in small increments from the keyboard to allow
line behaviour to be observed. The diameter of the coaxial inner
conductor is also input, this being needed for calculating loss in the
line which affects input impedance.

Download program INPUT_Z (40 K-bytes) in a few seconds from website
below and run imediately.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

373. Re: elevator noise?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 13:18:30 UTC
From: GS <limbo@spam.hell>
Message-ID: <DsPYf.2043$pZ3.312353@news20.bellglobal.com>
Source record: 61617

Having spent 10 years in the elevator industry, you'll find that new equipment is mostly solid state with relays only controlling the safety circuit and motor controls. The controller is encliosed in a steel cabinet and as a result is ussually well shielded.

That being said, you did not indicate what type of drive system will be installed, SCR (DC motors), AC V3F Drive Etc or will the current drives be left as is. These could potentially be a source of noise depending on the manufacturer. Motor/Gen set (older DC drives) could be very noisy when the brushes are worn. Newer AC V3F drives could be noisy when DC injection is used for braking and holding the elevator at the floor (noise from the motor windings as they vibrate at who knows what frequency).

Most mechanics will be willing to share the info when you see them, coffee helps.

Remember the the elevator guys don't mind the sudden stops only the little jerks in between. Hi. Hi.

73's
Guenther VE3CVS

"ml" <m@di.net> wrote in message
news:m-66F49E.19211504042006@news.verizon.net...
> today the elevator room on the roof is all relays, looks like a
> frankenstin set from the 50's wouldn't be surprized if the relays are
> actually from 50's either
>
> my antenna is mounted on the wall (brick) of this room
>
> currently i don't get any noise (electricial)
>
>
>
> Just found out the building is thinking of adding new elevators and
> modern controlers
>
> so now i wonder, should i suspect that they are all rf tight in metal
> housing's or a rf nightmare?
>
>
> anyone have any experience w/how much 'noise'/hash they might throw ooff?
>
> tnx
>
> m

374. Re: New program. Input Z of a loaded line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 13:25:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pzPYf.64533$Jd.1036@newssvr25.news.prodigy.net>
Source record: 61615

Reg Edwards wrote:
> Also calculated are line attenuation, reflection coefficient, angle of
> reflection coefficient, SWR, power efficiency, and the line loss in
> decibels in the presence of SWR.

Good stuff, Reg. Does it calculate the TLI reading? :-)
--
73, Cecil http://www.qsl.net/w5dxp

375. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 13:27:13 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <0BPYf.12$Dv.10@fe08.lga>
Source record: 61616

<w8ji@akorn.net> wrote in message
news:1144227516.569973.257170@u72g2000cwu.googlegroups.com...
>
> Yuri Blanarovich wrote:
>> Your own words:
>> To which W8JI replied:
>>
>> "The idea current is high in only the start of a coil is not correct.
>> Model an antenna with EZnec, and look at the load. Model a coil in any
>> software, and look at current. Read any textbook, even beginner's
>> textbooks,
>> and see what they say. Measure a real antenna yourself!
>
> Where is the entire context of that comment Yuri? You (and Cecil) have
> the habit of extracting things from context of a larger statement and
> exaggerating or putting a creative spin on what others say.
>
> If you were saying the current is high only in the first few turns of a
> coil that is not in a high order self-resonance, that is incorrect.
>

Now you are putting words in my mouth. The question and argument WAS and IS
about the current being (almost) equal (you claimed), or DIFFERENT (my et
other's claim) at the ENDS of the loading coil. You stated "ALWAYS EQUAL"
(Kirchoff, bla, bla...).
As illustration and description of the effect I observed on the Hustler
resonator was, that the heat developed from the bottom few turns. Like I am
so stupid to claim that there is high current only in your few turns?
Common' give me a break and fes up!! This is getting comical and pathetic.
.
Anyone can look up the original posting about the development of the "story"
at
http://www.k3bu.us/loadingcoils.htm
The whole dispute is summarized in Fig. 3 there, where it properly shows the
shaded area representing reality - current and area at the whip after the
loading coil vs. solid line representing misconception. (See degrees used
there?) Anyone, even Richard can see that graphic representation of white
area between the shaded area and triangular curve at the right, to see the
the difference in efficiency ignored by the "same current" crowd - the white
triangle is what you are missing!
If you don't get it by now, then you have serious problem.

Why don't you "gurus" repeat measurements, model it PROPERLY as solenoid or
loading stub (or look at Cecil's examples) within the quarter wave resonant
loaded antenna and tell me where and what IS WRONG on my web page. Step by

step and arguments please.
I am getting tired of this mental masturbation why it CAN'T BE when it IS.
I tought that by now "same currentniks" would get it, but looks like too much resistance to admit being wrong. Well, looks like really need for comprehensive article to explain it, describe the experiments that anyone can replicate and set the record straight. If you choose not to believe it, that is your choice and you can live with it, who cares, really. Except that some people parade as experts, gurus, engineers, when they are not. They have odacity to attack others about misinformation, when they have same on their web pages.
The even more sad thing is that apparently you influenced ON4UN to take the right information out of his latest edition of Low Band DXing book and replaced with your misinformation. It is all there in black and white, can't deny it, besides claiming being or having "JI Engineering" company, which you have no right to use that name or description, you ain't no engineer with degree.
One last question Tom: How many electrical degrees has 60 ft tall tower (10" face) with circular (or hex, or whatever you choose) top hat of 20 ft diameter at 1.8 MHz?
Can you answer Cecil's questions?
Obviously NOT without admitting that you were and are wrong. No more "proofs" needed like potshots at Cecil's ex wife.
I get better response from a brick wall when I hit it with hammer.
I really have no more to say, the rest will be in the comprehensive article published for anyone to get the picture and decide for themseleves if this is important or valuable for them, or not. (I promise, I am peeved now :-)

73 Yuri Blanarovich, www.K3BU.us

Rest is crap, twist and dance around the argument
With couple more comments that I could not resist. :-)

> If you were saying the current is high in only the first few turns your
> statement was incorrect.
>
Any dummy would know that it would be DISTRIBUTED along the coil, not in few turns that you picked or shorted out! Argument was ACROSS the coil, or at IT's ends. SAME (you) vs. DIFFERENT (me)!!!!!!!!!!!!!!!!!!!!!!!!!!!!
Capish?

> If you were saying it had something to do with a cosign shape, your
> statement was not correct.
>
> Saying the current is NOT high in only the first few turns in a loading
> coil in a working system is NOT the same as saying the current does not
> vary or cannot vary.
>
>> You are like to call names, insult people, and argue rather than take the
>> time to learn basic electronics. This is in any book, including the ARRL
>> Handbook. If you look at HOW an inductor works, the current flowing in
>> one

>> terminal ALWAYS equals the current flowing out the other terminal.
>
> That's true. The only thing that causes any differential is when the
> inductor has significant stray C to the outside world compared to the
> "through" impedance. Current can't just vanish.
>

ITS THE STANDING WAVE CURRENT measurable with RF ammeters or current probes.
How come it "vanishes" at the tip of quarter wave vertical, HUH???? Or you
deny that too????

> I think that was explained at the same time. As I recall the
> conversation, you were claiming current followed the same taper as the
> antenna area it replaced and claiming only the first few turns had high
> current. You claimed coil Q didn't matter because most of the current
> was high only in a few turns.
>
CRAP! Make up some stories.

> I was trying to point out that idea, that the Q does not matter and the
> current is high only in the first few turns, is not correct by giving
> examples where we cannot measure the change with thermal couple meters.
>
>> and.....
>>
>> Measuring the current into and out of the loading coil with a small
>> thermocouple RF meter, I detect no difference This is in close agreement
>> with the model. " "
>
> Measurements are at:
>
> http://www.w8ji.com/mobile_antenna_current_measurements_at_w8ji.htm
>
>> You still don't know what are we talking about?
>> Cecil is playing? Can you answer questions that he posted and I posted?
>
> I've tried to answer every question Yuri, as have others. Does this
> help clear up what I was trying to say?
>
WHERE?

> As I recall you were claiming Q did not matter because current was high
> only in the first few turns of a loading coil.
>
Yea, riiiiight, I am so stuuuupid!

> I pointed out Q does not matter as people expect for a different
> reason. The real reason Q does not have the large effect on FS is
> ground losses in the system swamp out the effects of coil ESR.
>
> You said current difference was directly related to antenna area the
> loading coil replaced, that the loading coil had to have the same

> current slope as the area of antenna it replaced. If it replaced 80
> degrees of antenna, it had to have the same current differential as
> that 80 degrees of antenna. Is that correct, or did I misunderstand
> you?
>
> I was giving counter-points to that claim.
>
> For example I posted this:
>
> http://www.w8ji.com/agreeing_measurements.htm
>
> Do you disagee with anything I say or Roy said when it is in context of
> the overall discussion??
>

YOU and Roy disagree with REALITY!!!!!!!!!!!!

> 73 Tom
>

376. Re: elevator noise?/sheilding tricks?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 13:39:44 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <e10hav$1k6g$1@f04n12.cac.psu.edu>
Source record: 61618

The new elevator that was installed in my building here at the university,
puts out a large amount of noise on the AM broadcast band every time it
moves. I believe they are doing some sort of phase control on the motor with
little filtering.

--
John Passaneau
Penn State University
Physics Dept.
jxp16@psu.edu

"ml" <m@di.net> wrote in message
news:m-33EE55.05543105042006@news.verizon.net...
> In article <1144203594_5151@sp6iad.superfeed.net>,
> Doc <ltdoc@yahoo.com> wrote:
>
>> In other words, you won't really know till the new system is
>> actually installed. That means a 50/50 chance for or against.
>> 'Doc
>
> thanks all, that responded
>
> guess i'll have to wait and see,
>
> i wouldn't mind doing a survey however i'd have no way to really know in
> the residential area i live which building have electroic elevator
> controllers or not , can't tell from outside and can't really poke
> around
>
>
> OK i guess a better question might have been:
>
> so if the controllers give off bad rf
>
> what is the best way to 'shield' those boxes so they won't bother my
> antennas outside the room?
>
> presume that i can ground the cabinents myself if they are not already .
>
>
>
> thanks

377. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 13:40:34 UTC
From: Ronnie <rhughes4-removeme@swbell.net>
Message-ID: <mNPYf.55554$F_3.8890@newssvr29.news.prodigy.net>
Source record: 61619
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Thanks for the lead. I see them on their web site.
Ronnie

"Jeff" <jeff@local.host> wrote in message news:e109sn$jr0$1@emma.aioe.org...
> Those connectors are still in use today in UK & Europe at least. A UK
> supplier is Maplin electronics.
>
> www.maplin.co.uk part no HHH12N
>
> Reagrds
> Jeff
>

378. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 13:56:51 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <OmGUVORjy8MEFA5G@ifwtech.co.uk>
Source record: 61622

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> In an Internet discussion, everybody has the right to attempt to
>>switch the discussion away from the point.
>
>Everybody seems to understand how a coil works.

Crucially, you don't. The main property of a "coil" is inductance, and at the most fundamental level you do not understand what inductance does.

>Very few
>people understand how standing waves work.

Once again: crucially, you don't. You demand that ordinary electrical phenomena (like inductance and even current) change their properties or definitions in the presence of standing waves.

You are doggedly trying to make those two misconceptions cancel each other out. Won't work.

>There's no point
>in discussing what people already understand. There's every
>point in discussing what people don't understand.

I certainly agree with that... but we may differ about who we mean by "people" :-)

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

379. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 14:03:48 UTC
From: w8ji@akorn.net
Message-ID: <1144245828.369284.66730@e56g2000cwe.googlegroups.com>
Source record: 61620

Yuri Blanarovich wrote:
> > If you were saying the current is high only in the first few turns of a
> > coil that is not in a high order self-resonance, that is incorrect.
> >
>
> Now you are putting words in my mouth. The question and argument WAS and IS
> about the current being (almost) equal (you claimed), or DIFFERENT (my et
> other's claim) at the ENDS of the loading coil. You stated "ALWAYS EQUAL"
> (Kirchoff, bla, bla...).

OK, I agree the current CAN be different.

Of course that has nothing to do with the amount of antenna the coil
replaces, it is a function of the physical construction of the loading
coil and how much capacitance the coil has from the coil to the outside
world compared to the capacitance terminating the loading coil.

> As illustration and description of the effect I observed on the Hustler
> resonator was, that the heat developed from the bottom few turns. Like I am
> so stupid to claim that there is high current only in your few turns?
> Common' give me a break and fes up!! This is getting comical and pathetic.

Well, I thought that was what you said. If you didn't say it, I have to
take your word for it.
.
> I really have no more to say, the rest will be in the comprehensive article
> published for anyone to get the picture and decide for themseleves if this
> is important or valuable for them, or not. (I promise, I am peeved now :-)

Good. Then write your article and have it published. It would be easier
to understand your point if it was presented calmly and rationally in
an article. At this point I'm not sure what you are saying.

73 Tom

380. Re: paint antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 14:05:47 UTC
From: Silfax <Silfax@localhost.localdomain>
Message-ID: <slrne37jlq.66e.Silfax@minimac.linux1.lan>
Source record: 61621

On 2006-04-04, ml <m@di.net> wrote:
>> If you paint a yagi on the roof, how do you intend on rotating the building?
>
> my original post specified one direction , figured that's until i can
> rotate the building easily
>
> but if the antenna of this type worked well /was practical past the
> experiment stage wich was also specified as the point...
>
> then a better way would be to just paint 4 , one for each side and use
> a coax switch yeah thats cool

I would try putting up a vertical stripe on the building and then paint the radials on the sidewalk/street. This could be the ultimate in stealth. Make the radials look like a crosswalk or the center line down the street. You could even paint the curb, to make a no parking zone radial.

381. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 14:24:53 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144247093.292828.276560@i40g2000cwc.googlegroups.com>
Source record: 61623

Awww, MAN,Cecil. I am sorry. I had no idea that you were putting up with a newsreader that can't follow threads, and in addition you have such a severe short term memory loss that you can't follow what's been posted within the past couple hours.

Bummer, man. Real bummer. I feel for you. It's a really bad combination.

We should be able to help you out with the newsreader problem if you want. I'm not so sure about the memory loss thing, though. It might help if you didn't try to keep so many balls in the air all at once, but I don't know that for certain.

I've patched together below (from the newsreader I use, which does keep track of all the branches of threads) what I wrote and what I was replying to in this particular sub-thread, so you can see it all in one place. If you'd like, I could do the same with the postings from other sub-threads here and from that other thread-that-wouldn't-die and email it to you, but that would be on a time-permitting basis.

Cheers,
Tom

The above is in reply to:

Path:
g2news1.google.com!news2.google.com!news3.google.com!border1.nntp.dca.giganews.com!nntp.gi
ganews.com!newscon06.news.prodigy.com!prodigy.net!newsmst01b.news.prodigy.com!prodigy.com!
postmaster.news.prodigy.com!newssvr25.news.prodigy.net.POSTED!00eff025!not-for-mail
From: Cecil Moore <myc...@hotmail.com>
User-Agent: Mozilla/5.0 (Windows; U; Windows NT 5.1; en-US; rv:1.7.2)
Gecko/20040804 Netscape/7.2 (ax)
X-Accept-Language: en-us, en
MIME-Version: 1.0
Newsgroups: rec.radio.amateur.antenna
Subject: Re: Current across the antenna loading coil - from scratch
References: <UdBUf.15$t06.3@fe12.lga>
<1143142526.021154.67050@e56g2000cwe.googlegroups.com>
<y70Yf.60$yZ6.41@fe12.lga>
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<1fWdnQLbJqyMyqzZnZ2dnUVZ_smdnZ2d@adelphia.com>
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<jThYf.11421$tN3.9768@newssvr27.news.prodigy.net>
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<gYzYf.64389$Jd.49130@newssvr25.news.prodigy.net>
<1144182367.544279.161490@e56g2000cwe.googlegroups.com>
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Lines: 29
Message-ID: <B_AYf.64398$Jd.57750@newssvr25.news.prodigy.net>
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X-Trace: newssvr25.news.prodigy.net 1144183841 ST000 64.149.30.33 (Tue,
04 Apr 2006 16:50:41 EDT)
NNTP-Posting-Date: Tue, 04 Apr 2006 16:50:41 EDT
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MPLDFNVUQ_VM
Date: Tue, 04 Apr 2006 20:50:41 GMT

K7ITM wrote:

> You really think so, Cecil?? I saw through it the first time you
> posted it. As an EZNEC and NEC2 user, I know that not only the current
> magnitude, but also its phase, is reported. I knew that what you
> posted about it was incorrect. I don't see Roy's comment as agreeing
> with you at all, but completely disagreeing. You said that it only
> gave amplitude information, when in fact it gives phase and amplitude.

Again, no quote from me. I have no idea to what you are responding
or even if you are responding to something I said today or last year.

I didn't say EZNEC doesn't give phase information. I said there is
no phase information in the phase information that EXNEC gives.
What is it about Gene's posting that you don't understand?

> Regarding the cos(kz)*cos(wt) term in a standing wave:
>
> Gene Fuller, W4SZ wrote:
>> In a standing wave antenna problem, such as the one you describe, there is no
>> remaining phase information. Any specific phase characteristics of the traveling
>> waves died out when the startup transients died out.
>>

>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen again.
>>
>> The only "phase" remaining is the cos (kz) term, which is really an amplitude
>> description, not a phase.
--
73, Cecil http://www.qsl.net/w5dxp

---
which was in reply to my message:

Path:
g2news1.google.com!postnews.google.com!e56g2000cwe.googlegroups.com!not-for-mail
From: "K7ITM" <k...@msn.com>
Newsgroups: rec.radio.amateur.antenna
Subject: Re: Current across the antenna loading coil - from scratch
Date: 4 Apr 2006 13:26:07 -0700
Organization: http://groups.google.com
Lines: 7
Message-ID: <1144182367.544279.161490@e56g2000cwe.googlegroups.com>
References: <UdBUf.15$t06.3@fe12.lga>
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X-Complaints-To: groups-abuse@google.com
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In-Reply-To: <gYzYf.64389$Jd.49130@newssvr25.news.prodigy.net>
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rv:1.7.2) Gecko/20040804 Netscape/7.2 (ax),gzip(gfe),gzip(gfe)
Complaints-To: groups-abuse@google.com

Injection-Info: e56g2000cwe.googlegroups.com;
posting-host=192.25.142.225;
posting-account=phdUIAwAAABBVjeZzACGtATOLRtXatU-

You really think so, Cecil?? I saw through it the first time you
posted it. As an EZNEC and NEC2 user, I know that not only the current
magnitude, but also its phase, is reported. I knew that what you
posted about it was incorrect. I don't see Roy's comment as agreeing
with you at all, but completely disagreeing. You said that it only
gave amplitude information, when in fact it gives phase and amplitude.

---
which was in reply to Cecil's message:

Path:
g2news1.google.com!news2.google.com!news4.google.com!news.glorb.com!newscon02.news.prodigy
.com!prodigy.net!newsmst01b.news.prodigy.com!prodigy.com!postmaster.news.prodigy.com!newss
vr25.news.prodigy.net.POSTED!00eff025!not-for-mail
From: Cecil Moore <myc...@hotmail.com>
User-Agent: Mozilla/5.0 (Windows; U; Windows NT 5.1; en-US; rv:1.7.2)
Gecko/20040804 Netscape/7.2 (ax)
X-Accept-Language: en-us, en
MIME-Version: 1.0
Newsgroups: rec.radio.amateur.antenna
Subject: Re: Current across the antenna loading coil - from scratch
References: <UdBUf.15$t06.3@fe12.lga>
<1143142526.021154.67050@e56g2000cwe.googlegroups.com>
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X-Trace: newssvr25.news.prodigy.net 1144179596 ST000 64.149.30.33 (Tue,

04 Apr 2006 15:39:56 EDT)
NNTP-Posting-Date: Tue, 04 Apr 2006 15:39:56 EDT
Organization: SBC http://yahoo.sbc.com
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\VLGANTQQ]FN
Date: Tue, 04 Apr 2006 19:39:56 GMT

Roy Lewallen wrote:

> I see that Cecil's latest fetish is that EZNEC reports RMS values of
> voltage and current. Because we know that the voltages and currents are
> purely sinusoidal, the RMS value and phase angle (also reported by
> EZNEC) are adequate to define the time waveform. That is, when we know
> the RMS amplitude and the phase angle, we know the value of the waveform
> at every instant in time. No additional information is necessary.

Since you agree with me, what's with the fetish remark?
You seem to feel obliged to take an ad hominem pot shot
every time you mention my name. I assure you, it is
hurting your reputation more than it is hurting mine.
--
73, Cecil http://www.qsl.net/w5dxp

By implication, this is also with respect to what Cecil wrote at the
end of another subthread. The in-reply-to-s can be used to trace
things back...:

Path:
g2news1.google.com!news2.google.com!news3.google.com!border1.nntp.dca.giganews.com!nntp.gi
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From: Cecil Moore <myc...@hotmail.com>
User-Agent: Mozilla/5.0 (Windows; U; Windows NT 5.1; en-US; rv:1.7.2)
Gecko/20040804 Netscape/7.2 (ax)
X-Accept-Language: en-us, en
MIME-Version: 1.0
Newsgroups: rec.radio.amateur.antenna
Subject: Re: Current across the antenna loading coil - from scratch
References: <UdBUf.15$t06.3@fe12.lga>
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04 Apr 2006 16:18:26 EDT)
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Organization: SBC http://yahoo.sbc.com
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\VLGANTQQ]FN
Date: Tue, 04 Apr 2006 20:18:26 GMT

K7ITM wrote:

> I beg your pardon? Excuse me? I "trimmed out all the technical
> content and didn't quote anything you said"???

Yes, and you are doing it again. I'm quoting your entire posting
and there is not one quote from me.

> As a matter of fact, I
> took exactly the numbers you gave us, ALL of them, and used them and
> ONLY them in my accounting. If THAT's "disembodied from reality," then
> I'd point out that it's YOUR numbers that are disembodied from reality.
> In fact, I didn't argue with YOUR numbers at all. I just took them at
> face value. You were the one that discarded what I carefully developed
> from them without out so much as an ounce of reasoning or explanation.
> After that I went on to FURTHER EXPLAIN why I had done what I did in
> the first place, and you dismissed that again without any technical
> explanation.
>
> It's all there for everyone to see, Cecil.

If there's a quote from me in this posting, Tom, I am unable
to find it.

> Go ahead, dig yourself deeper into it.

Since you didn't quote anything I said, I have no idea what
you are talking about.
--
73, Cecil http://www.qsl.net/w5dxp

---

382. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 14:29:05 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <RuQYf.66797$dW3.18758@newssvr21.news.prodigy.com>
Source record: 61624

Ian White GM3SEK wrote:
> Cecil Moore wrote:
>> Everybody seems to understand how a coil works.
>
> Crucially, you don't. The main property of a "coil" is inductance, and
> at the most fundamental level you do not understand what inductance does.

Please stop the mind fornication, Ian. I understand how a coil works
and I agree with you how a coil works in a lumped circuit or a traveling
wave environment. It's obvious that our basic disagreement is NOT about
coils but is, instead, about standing waves. If one doesn't understand
standing waves, one cannot understand standing waves in empty space, in
a wire, or in a coil.

Take away the coil leaving nothing but wire. You and I still disagree
regarding traveling waves Vs standing waves. Take away the wire and leave
nothing but empty space containing standing waves of light. You and I
still disagree regarding traveling waves Vs standing waves. Let's discuss
our point of disagreement, not something that we agree upon.

>> Very few people understand how standing waves work.
>
> Once again: crucially, you don't. You demand that ordinary electrical
> phenomena (like inductance and even current) change their properties or
> definitions in the presence of standing waves.

I just posted some tabular current data from EZNEC. EZNEC says that
current changes its properties in the presence of standing waves.
It's there in black and white for all to see. Please explain how
those two columns of data are identical.

The traveling wave current magnitude is constant over the entire
90 degrees of wire. The standing wave current magnitude is a cosine
function over that same 90 degrees of wire.

The traveling wave current phase changes linearly over the entire
90 degrees of wire. The standing wave current phase is unchanging
over that same 90 degrees if wire.

That doesn't look the same to me. In fact, one could make an argument
that traveling wave current and standing wave current are opposites
of each other.
--
73, Cecil http://www.qsl.net/w5dxp

383. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 14:33:26 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <WyQYf.66799$dW3.66260@newssvr21.news.prodigy.com>
Source record: 61625

w8ji@akorn.net wrote:
> OK, I agree the current CAN be different.

Therefore, you are admitting that you were wrong when you said:

> If you look at HOW an inductor works, the current flowing in one
> terminal ALWAYS equals the current flowing out the other terminal.

> At this point I'm not sure what you are saying.

He's saying your original statement above was wrong. And now
you admit it was wrong. Congratulations on that admission.
--
73, Cecil http://www.qsl.net/w5dxp

384. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 14:45:23 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144248323.701847.71900@z34g2000cwc.googlegroups.com>
Source record: 61476

>From where I am, Cecil, it sounds a lot more like everyone is bored to tears with standing waves, since they are nothing more than the result of adding together a couple travelling waves, and everyone here understood them LONG ago. In a linear system, one never needs to even mention "standing wave." A description of the travelling waves is all one needs. YMMV. You may be convinced that isn't true; I on the other hand am convinced--I am absolutely certain--that not everyone here understands how a travelling wave is actually supported on an antenna wire. That, to me, is a much more interesting topic: what is actually happening in the fields, and how do the fields arise from and in turn contribute to the motion and accumulation of charge on an antenna wire (and in a loading coil, which is part of the antenna wire).

As I've posted before, and as far as I know nobody's taken me up on it, it's quite enlightening to see an animation of the standing wave+travelling wave pattern that develops on a transmission line for various values of the ratio between the two travelling wave amplitudes. But once you've seen it, and likely even before, you know what you need, and (most of us) can move on

Cheers,
Tom.

In Message-ID: <RuQYf.66797$dW3.18758@newssvr21.news.prodigy.com> ,
Cecil wrote:

Ian White GM3SEK wrote:
> In an Internet discussion, everybody has the right to attempt to switch
> the discussion away from the point.

Everybody seems to understand how a coil works. Very few people understand how standing waves work. There's no point in discussing what people already understand. There's every point in discussing what people don't understand.
--
73, Cecil http://www.qsl.net/w5dxp

385. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 15:15:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kaRYf.55571$F_3.42490@newssvr29.news.prodigy.net>
Source record: 61477

K7ITM wrote:
> Awww, MAN,Cecil. I am sorry. I had no idea that you were putting up
> with a newsreader that can't follow threads, and in addition you have
> such a severe short term memory loss that you can't follow what's been
> posted within the past couple hours.

My newsreader is indeed unthreaded. I remember what was posted
but sometimes not by who.

> We should be able to help you out with the newsreader problem if you
> want.

I prefer my newsreader unthreaded. I read postings in the order
in which they are received by my newsserver. Nothing else is ever
downloaded. If the context of a posting is not quoted, I never see it.

> I've patched together below (from the newsreader I use, which does keep
> track of all the branches of threads) what I wrote and what I was
> replying to in this particular sub-thread, so you can see it all in one
> place.

I still don't see any technical content in those postings. I do
apologize if I have offended you but I still don't understand how.
But that is water under the bridge by now.

Sorry, the discussion has progressed beyond coils. Take a look at my
other posting about what EZNEC says about traveling wave current Vs
standing wave current and you will be up to date. Then you can use
your lumped-circuit theory to explain the major differences in those
two kinds of currents reported by EZNEC.
--
73, Cecil http://www.qsl.net/w5dxp

386. Phase shift through...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 15:19:23 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144250363.672328.321670@v46g2000cwv.googlegroups.com>
Source record: 61478

Just as we can make a short antenna resonant by adding a loading coil, and the loading coil may be placed anywhere along the antenna if an appropriate coil is chosen, we can make a long antenna resonant by inserting a series capacitance along the antenna wire.

When that physically long but electrically shortened to resonance antenna is excited and a standing wave pattern develops, what is the phase shift of the current through the loading capacitor? Is the standing wave current on the two sides of the capacitor different, in a manner similar to how it's different in a loading coil?

If not, why not?

Cheers,
Tom

387. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 15:29:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <DnRYf.55572$F_3.55570@newssvr29.news.prodigy.net>
Source record: 61479

K7ITM wrote:

> From where I am, Cecil, it sounds a lot more like everyone is bored to
> tears with standing waves, since they are nothing more than the result
> of adding together a couple travelling waves, and everyone here
> understood them LONG ago.

Everyone *thought* they understood them. The assertion that "current
is current" proves that they didn't really understand them.

cos(kz + wt) is simply not the same thing as cos(kz)*cos(wt)
There is no trig idenity that will make them the same.

Even W7EL's assertion about EZNEC not worrying about traveling
wave current is wrong. When reflected current is eliminated in
the traveling wave antenna design, EZNEC faithfully reports the
traveling wave current proportional to cos(kx+wt).

Please comment on the tabular data that I posted from EZNEC.

And again, I apologize for offending you.

> As I've posted before, and as far as I know nobody's taken me up on it,
> it's quite enlightening to see an animation of the standing
> wave+travelling wave pattern that develops on a transmission line for
> various values of the ratio between the two travelling wave amplitudes.
> But once you've seen it, and likely even before, you know what you
> need, and (most of us) can move on

I've posted this java graphic before. The standing wave current is
obviously not the same as the traveling current.

http://users.pandora.be/educypedia/electronics/applets/ph14e/stwaverefl.htm
--
73, Cecil http://www.qsl.net/w5dxp

388. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 15:36:05 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <1237p0ba92lo86c@corp.supernews.com>
Source record: 61480
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Ronnie wrote:
> Thanks for the lead. I see them on their web site.
> Ronnie
>
> "Jeff" <jeff@local.host> wrote in message news:e109sn$jr0$1@emma.aioe.org...
>
>>Those connectors are still in use today in UK & Europe at least. A UK
>>supplier is Maplin electronics.
>>
>>www.maplin.co.uk part no HHH12N
>>
>>Reagrds
>>Jeff
>>
>
>
>
Jeff and Ronnie;

That type of connector is known as a "Motorola Connector". Developed by
Motorola for their automobile radios.

Dave N

389. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 16:03:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6po7321mo5mf347d3ebdjt86hbl7svk3oq@4ax.com>
Source record: 61482

On Wed, 5 Apr 2006 09:27:13 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>Anyone, even Richard can see that graphic representation of white
>area between the shaded area and triangular curve at the right, to see the
>the difference in efficiency ignored by the "same current" crowd - the white
>triangle is what you are missing!

Hi Yuri,

I can also see that any metrics are entirely missing as to ACTUAL
efficiency. You already admit you don't know and don't really care to
go there when you dismiss this discussion:
>On Tue, 4 Apr 2006 16:47:05 -0400, "Yuri Blanarovich" <K3BU@optonline.net> wrote:
>>So lets stick to the big problem and fuggettabout detours and nitpicking.

This "big problem and nitpicking" is girly talk when they are giggling
about Desperate Housewives. It is most obvious you enjoy the cat
fight with Tom and don't give a hoot about a technical presentation.

73's
Richard Clark, KB7QHC

390. Re: Phase shift through...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 16:04:19 UTC
From: chuck <nospam@nospam.net>
Message-ID: <7URYf.332$sq5.0@newsread2.news.atl.earthlink.net>
Source record: 61481

K7ITM wrote:
> Just as we can make a short antenna resonant by adding a loading coil,
> and the loading coil may be placed anywhere along the antenna if an
> appropriate coil is chosen, we can make a long antenna resonant by
> inserting a series capacitance along the antenna wire.
>
> When that physically long but electrically shortened to resonance
> antenna is excited and a standing wave pattern develops, what is the
> phase shift of the current through the loading capacitor? Is the
> standing wave current on the two sides of the capacitor different, in a
> manner similar to how it's different in a loading coil?
>
> If not, why not?
>
> Cheers,
> Tom
>

Is it not true that any two conductors can be modeled as either a
transmission line or a capacitor? At this level, there appears to be
analytic symmetry with a series loading coil.

Chuck

391. Re: Phase shift through...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 16:18:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <95SYf.55581$F_3.10204@newssvr29.news.prodigy.net>
Source record: 61483

K7ITM wrote:
> When that physically long but electrically shortened to resonance
> antenna is excited and a standing wave pattern develops, what is the
> phase shift of the current through the loading capacitor? Is the
> standing wave current on the two sides of the capacitor different, in a
> manner similar to how it's different in a loading coil?

In order to answer the question, one has to understand the
physics of standing waves. Most people don't understand the
physics of standing waves. Understanding the physics of a
capacitor embedded in a standing wave environment is pretty
much moot if one doesn't understand the physics of standing
waves. Please let's take first things first.
--
73, Cecil http://www.qsl.net/w5dxp

392. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 16:58:51 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144256331.531566.244190@t31g2000cwb.googlegroups.com>
Source record: 61484

I'm sorry, Cecil, but that Java applet is a poor cousin of what I had
in mind. It only tells part of the story. Please re-read my message
carefully.

Cheers,
Tom

Cecil Moore wrote, in Message-ID:
<DnRYf.55572$F_3.55570@newssvr29.news.prodigy.net>:
> K7ITM wrote:
>
> > From where I am, Cecil, it sounds a lot more like everyone is bored to
> > tears with standing waves, since they are nothing more than the result
> > of adding together a couple travelling waves, and everyone here
> > understood them LONG ago.
>
> Everyone *thought* they understood them. The assertion that "current
> is current" proves that they didn't really understand them.
>
> cos(kz + wt) is simply not the same thing as cos(kz)*cos(wt)
> There is no trig idenity that will make them the same.
>
> Even W7EL's assertion about EZNEC not worrying about traveling
> wave current is wrong. When reflected current is eliminated in
> the traveling wave antenna design, EZNEC faithfully reports the
> traveling wave current proportional to cos(kx+wt).
>
> Please comment on the tabular data that I posted from EZNEC.
>
> And again, I apologize for offending you.
>
> > As I've posted before, and as far as I know nobody's taken me up on it,
> > it's quite enlightening to see an animation of the standing
> > wave+travelling wave pattern that develops on a transmission line for
> > various values of the ratio between the two travelling wave amplitudes.
> > But once you've seen it, and likely even before, you know what you
> > need, and (most of us) can move on
>
> I've posted this java graphic before. The standing wave current is
> obviously not the same as the traveling current.
>
> http://users.pandora.be/educypedia/electronics/applets/ph14e/stwaverefl.htm
> --
> 73, Cecil http://www.qsl.net/w5dxp

393. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 17:11:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vpq732dd6a852gsb2i1orsk38jtpbe1i6u@4ax.com>
Source record: 61485

On Wed, 5 Apr 2006 07:33:10 -0500, "Richard Fry" <rfry@adams.net>
wrote:

>The text continues that for a MW monopole, the terminal condition consists

Problems here.

1. This was not a heap of explaining, only a pile;
2. this was not explaining at all, merely description;
3. this does not explain how a 118.60ï¿½ tall antenna comes to be
resonant through
>On Tue, 4 Apr 2006 12:11:20 -0500, "Richard Fry" <rfry@adams.net> wrote:
>>The effective electrical length of a MW monople radiator determines its
>>resonant frequencies, and that must include the velocity of propagation
>>along the structure -- which is a function of the height AND width of the
>>radiator (mainly), and the operating frequency.

Using your reference
"Antenna Engineering Handbook," 2nd edition (pub. 1984),
by Johnson and Jasik
and having me carry your water of explaining, we find in figure 4-4
the correlation between resonance (the absence of reactance), length,
and diameter gives us a necessarily wide antenna of
13.9 meters

I cannot recall ever seeing any tower with a 45 foot diameter in a
commercial setting. However, that is not to say it doesn't exist,
merely that the odds for it are ridiculously astronomical.

If we browse the FCC database for other antennas to see how well your
reference "explains" how your quote above provides a resonance for
them, then we come across rather more astronomical odds being
fulfilled.

WFLF 75.00ï¿½ tall 540 kHz
requires a tower diameter of 364 feet =whew!=

KNOE 63.00ï¿½ tall 540 kHz
Let's just say that is so far off the charts it ceases to be
astronomic and becomes galactic in improbability. Basically this
reveals the breakdown in hyperbole's capacity to describe the metaphor
of improbability - especially in the face of these examples that
follow:

WGOP (POCOMOKE CITY) 63.00ï¿½ tall 540 kHz

WWCS 63.50ï¿½ tall 540 kHz

WYNN 65.50ï¿½ tall 540 kHz

KDFT 59.30ï¿½ tall 540 kHz

WXNH 56.30ï¿½ tall 540 kHz

WLIE 62.30ï¿½ tall 540 kHz

There's no point going further as this hardly exhausts one frequency assignment, much less the AM band.

The long and the short of it stands with my original statement:
>>Any
>>association between resonance, velocity of propagation, height, width,
>>etc. and something like our 118.60ï¿½ tall antenna needs a heap more
>>explaining than resonance, velocity of propagation, height, width,
>>etc. - but such explaining is a specialty occupation here in this
>>group.

Expanding slightly, it is absurd to attach a 90ï¿½ tall claim to an antenna simply because it has been resonated through adaptive measures. Unfortunatley, being absurd is also a specialty occupation here in this group.

73's
Richard Clark, KB7QHC

394. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 17:20:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6mu7321vm78srnkuhmnvkl6vc43mf2o84d@4ax.com>
Source record: 61486

On Wed, 05 Apr 2006 12:56:07 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Sorry, a typo. Should be 0.9969

Let's see, you responded to Roy twice, then responded to yourself, and
then responded to yourself again - DAMN, you are really trying hard to
convince yourself.

In your pursuit of a solitary pleasure, I can't tell which perspective
has the worst prospect: the teacher's, or the student's.

395. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 17:51:11 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <tsTYf.9$ue1.1@fe11.lga>
Source record: 61487

"Richard Clark" <kb7qhc@comcast.net> wrote

> Hi Yuri,
>
> I can also see that any metrics are entirely missing as to ACTUAL
> efficiency. You already admit you don't know and don't really care to
> go there when you dismiss this discussion:

But graphic representation gives rough idea to realize that it is not
unimportant or worthy ignoring.
If you wanna get precise metrics, stick the two versions of coil definition
in the EZNEC, generate the curves and compare areas under the curve from the
top of the coil to the tip. Then tell us that is negligible and was not
worth of this exercise.
I will get to it soon too.

Yuri, K3BU

396. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 17:53:50 UTC
From: "pdrahn@coinet.com" <pdrahn@coinet.com>
Message-ID: <1144259630.209135.296490@z34g2000cwc.googlegroups.com>
Source record: 61488
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

We purchased a new 5th wheel trailer a month ago and had to replace the stereo unit. Was I surprised when I pull the old one. It used the old Motorola auto antenna connector and cable to the antenna on the RV roof. So, I guess the antennas, cable and connectors are still being made and used today.

Paul in Redmond, OR

397. Mono Vertical to Multi-band

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 17:59:06 UTC
From: Scott Gordon <sgordon@wowway.com>
Message-ID: <06ydnfof-O7smKnZnZ2dnUVZ_smdnZ2d@wideopenwest.com>
Source record: 61489

I have a 40 ft vertical fed with coax that I am using today on 60 meters with excellent results. I have 34 radials under it now at about 43 ft.

I am wondering how I can use this antenna on other bands? 40, 20, 17, 15, 12, and 10 meters.

I am sure if I wanted to put it on 75m I would need to install a cap hat, and don't think I want to go through that but would like to see how I could use it else where?

Appreciate the help.

--
Scott Gordon
kq8rp

398. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 18:13:54 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <e111d2$fd8$2@engnntp2.cig.mot.com>
Source record: 61492
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Nope. That's where. Autos. A piece of spiral plastic "rod" around the
solid wire center conductor to space it in the center of the over-sized-hole
dielectric. I thought it was also a "Motorola" connector, but didn't want
to sound arrogant (still working at the circle M Ranch, you know). The AM
receiver antenna was (is) nothing more that a capacitive probe hooked to the
input, so the smaller the loading cap the better.
Gee, if I shill have some around, perhaps some experimentation to determine
the Z0 ... OK ... project 9,735, on the list for retirement. (yea, right)

73, Steve, K9DCI

I only saw it referred to as low capacitance cable. Don't know if the Z0
was specified
"Ronnie" <rhughes4-removeme@swbell.net> wrote in message
news:5eGYf.62116$H71.61164@newssvr13.news.prodigy.com...
> Thanks Bill.
>
> The autopilot service manual I have shows a hand
> drawn figure of the cable that indicates a curly or spiral twist
> to the center conductor which appears as you stated to help
> keep the center conductor in the middle of the tube. It also
> mentions that the characteristics and length of the cable is part
> of the tuned circuit, but doesn't give any data on the cable.
>
> Like you, I'm sure I've seen that type of cable somewhere in
> the past and thought it was in an automotive antenna application,
> but it could have been elsewhere.
>
> Ronnie
>
> "- exray -" <exray@coqui.net> wrote in message
> news:12363o61bhj7g5e@corp.supernews.com...
> > Michael A. Terrell wrote:
> >
> >
> >>
> >>
> >> It was RG62 93 ohm coax.
> >
> > Certainly not in older radios. I don't know what they sell nowadays.
> >
> > I've seen that 'spiral' type of cable. They basically used the spiral
as
> > a means of maintaining the centre conductor in the average 'middle' of

the
> > hollow dielectric.
> >
> > The combined inductance and capacitance of the old cable was somewhat
> > critical but the older radios provided an antenna trimmer to compensate
> > for the variations. The electrical model was essentially a "voltage
> > probe" and doesn't necessarily follow common antenna/feedline rules and
> > thought.
> >
> > -Bill
>
>

399. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 18:28:31 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <44340C37.B9A3788D@earthlink.net>
Source record: 61490
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

```
- exray - wrote:
>
> Michael A. Terrell wrote:
>
> >
> >
> > It was RG62 93 ohm coax.
>
> Certainly not in older radios. I don't know what they sell nowadays.
>
> I've seen that 'spiral' type of cable. They basically used the spiral
> as a means of maintaining the centre conductor in the average 'middle'
> of the hollow dielectric.
>
> The combined inductance and capacitance of the old cable was somewhat
> critical but the older radios provided an antenna trimmer to compensate
> for the variations. The electrical model was essentially a "voltage
> probe" and doesn't necessarily follow common antenna/feedline rules and
> thought.
>
> -Bill

One of the engineers at Delco told me it was RG-62, and 93 ohms when
I was going to their annual car radio training back in the early '70s.
IBM also used RG-62 on their coaxial computer networking, but they used
BNC connectors.
--
Service to my country? Been there, Done that, and I've got my DD214 to
prove it.
Member of DAV #85.

Michael A. Terrell
Central Florida
```

400. Re: Mono Vertical to Multi-band

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 18:32:06 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <G2UYf.62268$H71.559@newssvr13.news.prodigy.com>
Source record: 61491

Scott Gordon wrote:

> I have a 40 ft vertical fed with coax that I am using today on 60 meters
> with excellent results. I have 34 radials under it now at about 43 ft.
>
> I am wondering how I can use this antenna on other bands? 40, 20, 17, 15,
> 12, and 10 meters.

With a straight monopole, anything over 5/8 wavelength is
not a good DX radiation pattern. So if you are into low
angle radiation, the rule-of-thumb upper frequency limit
for a 40 ft. monopole would be about 585/40' = 14.6 MHz.
It would work well on 20m and deteriorate as the frequency
increases above 14.6 Mhz.
--
73, Cecil http://www.qsl.net/w5dxp

401. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 19:20:47 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e115af$1f4i$1@f04n12.cac.psu.edu>
Source record: 61493

w8ji@akorn.net wrote:
> Michael Coslo wrote:
>> Cecil Moore wrote:
>>> w8ji@akorn.net wrote:
>>>> No matter what facts multiple independent sources submit, those who
>>>> have faith will ignore the facts.
>>> :-) That apparently includes individuals with faith in the
>>> lumped circuit model under conditions where it is known to
>>> fail. :-)
>>
>> Aww Cecil, does every thread have to turn into that? 8^)
>
>
> At least it isn't fractals, although it is getting almost that bad.

Yeah, at least Cecil isn't threatening to sue anyone! ;^)

- 73 de mike KB3EIA -

402. Re: What is an EH antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 19:23:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <XOUYf.8618$4L1.460@newssvr11.news.prodigy.com>
Source record: 61494

Michael Coslo wrote:
> Yeah, at least Cecil isn't threatening to sue anyone! ;^)

Sue asked me not to do that. :-)
--
73, Cecil http://www.qsl.net/w5dxp

403. Re: Mono Vertical to Multi-band

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 19:42:49 UTC
From: Dan Richardson <k6mhe>
Message-ID: <fm6832h5q2tg6kmnd1q9tmt717uiduf4o1@4ax.com>
Source record: 61495

On Wed, 5 Apr 2006 13:59:06 -0400, "Scott Gordon" <sgordon@wowway.com>
wrote:

>I have a 40 ft vertical fed with coax that I am using today on 60 meters
>with excellent results. I have 34 radials under it now at about 43 ft.
>
>I am wondering how I can use this antenna on other bands? 40, 20, 17, 15,
>12, and 10 meters.
>
>I am sure if I wanted to put it on 75m I would need to install a cap hat,
>and don't think I want to go through that but would like to see how I could
>use it else where?
>
>Appreciate the help.

Scott,

On frequencies higher than 20-meters I doubt you not will be please
with performance above 20-meters for a 40-foot vertical - unless you
are primarily interested in talking to airplanes - as most of your
power will be launched at high angles.

I have a nice dual-band (40/20-meter) vertical described on my web
site at http://k6mhe.com/files/DualBandVert.pdf which you may find of
interest.

73,
Danny, K6MHE

404. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 19:45:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12387jdrj3qgsd8@corp.supernews.com>
Source record: 61496
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Michael A. Terrell wrote:
> . . .
> One of the engineers at Delco told me it was RG-62, and 93 ohms when
> I was going to their annual car radio training back in the early '70s.
> IBM also used RG-62 on their coaxial computer networking, but they used
> BNC connectors.

The automotive coax I'm familiar with isn't RG-62.

Like automotive coax, RG-62 has a thin walled hollow insulating tube. But RG-62 has a polyethylene "string" which is helically wound around the center conductor to keep it centered in the hollow tube. The coax in every old automotive installation I've seen lacks this PE "string", so the center conductor is free to flop around inside the hollow tube. The effect of the "string" is to make RG-62's Z0 constant and predictable, and it will also increase the capacitance somewhat. Constant Z0 isn't important for the automotive application, and low capacitance is important.

It seems to me the center conductor is smaller in the automotive coax than in RG-62, also.

Roy Lewallen, W7EL

405. Re: RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 19:56:35 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <12388bgc2u8v438@corp.supernews.com>
Source record: 61497

Richard,

> Having done it often, I can say it is far, far simpler than that. It
> is obtained through the evanescent mode and optical couplers just like
> RF couplers work on the exactly the same principle.

I'm told that this approach is relatively easy to detect in that it requires a fair amount of mechanical motion to achieve. Single-mode fiber is often used to detect minute changes in, e.g., bridges, and the idea is that -- while there may be other causes of significant mechanical motion to a fiber -- detecting it in the case of a secure line is cause for investigation.

I've also been told, however, that you can use completely non-invasive (mechanically) techniques to sniff fiber... something involving the back-scatter of neutrons or somesuch. Don't know how much of that was science-fiction vs. readily doable with the funding of a major government, though.

406. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 20:07:53 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <443422d4_4@newsfeed.slurp.net>
Source record: 61499

"Richard Clark"
> 3. this does not explain how a 118.60ï¿½ tall antenna comes to be
> resonant through
>>On Tue, 4 Apr 2006 12:11:20 -0500, "Richard Fry" <rfry@adams.net> wrote:
>>>The effective electrical length of a MW monople radiator determines its
>>>resonant frequencies, and that must include the velocity of propagation
>>>along the structure -- which is a function of the height AND width of the
>>>radiator (mainly), and the operating frequency.

I have not stated that an unloaded broadcast monopole of any physical height should be made self-resonant, or even needs to be, for efficient radiation. Very few broadcast monopoles are. The ones that aren't are matched to resonance and the transmission line Zo by a network at the antenna feedpoint, as I also stated.

What I wrote is that a radiator of "90 electrical degrees" when shown in the FCC database is NOT self-resonant, and referred to the experimental data from George Brown, and the work of Johnson & Jasik to confirm what I wrote. Kraus, 3rd edition, Ch 14 has the mathematical analysis to support this, also. NEC shows this effect, as well.

The rest of the examples in your post are based on your invalid assumption, for which my response is given above.

RF

407. Velocity Factors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 20:09:10 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <LOCdnc9_0-mtuanZRVnygw@bt.com>
Source record: 61498

I should like to know the velocity factors which occur on various twin-balanced transmission lines. We have -

Open wire lines with infrequently spaced, flimsey spacers.

450-ohm ladder lines of various sorts.

300-ohm lines spaced with a thin continuous web.

130-ohm lines with two insulated wires stuck close together like twin speaker cable.

75-ohm lines embedded in a solid eliptical-shaped polythene.

I daresay some of you have made measurements at one time or another. The more data received the better. I can then take averages.

Thank you.

Reg, G4FGQ

408. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 20:18:01 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <U6hSiza5XCNEFAyb@ifwtech.co.uk>
Source record: 61500

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> Cecil Moore wrote:
>>> Everybody seems to understand how a coil works.
>> Crucially, you don't. The main property of a "coil" is inductance,
>>and at the most fundamental level you do not understand what
>>inductance does.
>
>Please stop the mind fornication, Ian.

I am simply telling you straight. If you find the implications disturbing beyond the import of my actual words, that is beyond my control.

>I understand how a coil works
>and I agree with you how a coil works in a lumped circuit or a traveling
>wave environment. It's obvious that our basic disagreement is NOT about
>coils but is, instead, about standing waves.

Our basic disagreements are about coils *and* current *and* their behaviour when standing waves are present. There's no point in switching the discussion to cover only part of those topics.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

409. Re: Velocity Factors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 20:25:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <QIVYf.62315$H71.50712@newssvr13.news.prodigy.com>
Source record: 61501

Reg Edwards wrote:
> I daresay some of you have made measurements at one time or another.
> The more data received the better. I can then take averages.

I've only measured two of them, Reg. I measured "450" ohm
ladder-line VF at approximately 0.9 and "300" ohm ladder-
line at ~0.8. I was surprised since I assumed it would be
opposite those results.
--
73, Cecil http://www.qsl.net/w5dxp

410. Re: Phase shift through...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 20:26:42 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <6KVYf.62316$H71.2986@newssvr13.news.prodigy.com>
Source record: 61502

Cecil Moore wrote:
> K7ITM wrote:
>
>> When that physically long but electrically shortened to resonance
>> antenna is excited and a standing wave pattern develops, what is the
>> phase shift of the current through the loading capacitor? Is the
>> standing wave current on the two sides of the capacitor different, in a
>> manner similar to how it's different in a loading coil?
>
>
> In order to answer the question, one has to understand the
> physics of standing waves. Most people don't understand the
> physics of standing waves. Understanding the physics of a
> capacitor embedded in a standing wave environment is pretty
> much moot if one doesn't understand the physics of standing
> waves. Please let's take first things first.

You sure use a lot of words to signify the fact that you're
sunk, Cecil, and don't have a clue.
73,
Tom Donaly, KA6RUH

411. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 20:47:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <L1WYf.62328$H71.40080@newssvr13.news.prodigy.com>
Source record: 61503

Ian White GM3SEK wrote:
> I am simply telling you straight. If you find the implications
> disturbing beyond the import of my actual words, that is beyond my control.

You are trying to tell me what I think when you have no clue
as to what I am thinking. Excuse my French, but that is called
mind-fucking, Ian. Please cease and desist from that practice.
The only ethical and honest thing you can say about my postings
is, "it seems to me that you are saying or thinking such and such ..."

> Our basic disagreements are about coils *and* current *and* their
> behaviour when standing waves are present. There's no point in switching
> the discussion to cover only part of those topics.

Not switching the discussion to the only salient point of disagreement
will obfuscate the discussion. If that's what you want to do, then
your reasons for doing so are quite obvious, and readers are likely
to assume that you are not interested in technical facts at all but
more interested in preserving your omniscient guru status through
obfuscation.

So the real question is: Why have you avoided responding to my
tabular current posting based on EZNEC's take on traveling wave
current Vs standing wave current? Some may assume from that lack
of response that you are afraid to address the technical facts
as are W8JI and W7EL.

If you guys are so right, why are you afraid of discussint the
technical issues that I have posted?
--
73, Cecil http://www.qsl.net/w5dxp

412. Re: Phase shift through...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 20:53:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <07WYf.62329$H71.7497@newssvr13.news.prodigy.com>
Source record: 61504

Tom Donaly wrote:
> You sure use a lot of words to signify the fact that you're
> sunk, Cecil, and don't have a clue.

The technical content of your posting is duely noted, Tom,
for all the world to observe. Do you really believe that
such an ad hominem gut feeling statement has any impact or
technical value at all? (Rhetorical question)

It reminds me of what an eight year old would say.

If you really want to make a technical impact, please
respond to my tabular data table concerning EZNEC traveling
wave current values Vs standing wave current values.
--
73, Cecil http://www.qsl.net/w5dxp

413. Re: Velocity Factors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 20:56:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <saednYUlYbb9sqnZnZ2dnUVZ8qednZ2d@bt.com>
Source record: 61506

"Cecil Moore" wrote
> Reg Edwards wrote:
> > I daresay some of you have made measurements at one time or
another.
> > The more data received the better. I can then take averages.
>
> I've only measured two of them, Reg. I measured "450" ohm
> ladder-line VF at approximately 0.9 and "300" ohm ladder-
> line at ~0.8. I was surprised since I assumed it would be
> opposite those results.
> --
> 73, Cecil http://www.qsl.net/w5dxp
==========
Cec, the lower value for 300-ohm ladder line, compared with 450-ohm
ladder line, is what I would expect. Thanks for the figures.

It is the increase in capacitance between the two wires, due to the
permittivity of the insulation and because the wires are closer
together, which causes the decrease in velocity.

Reg.

414. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 20:57:14 UTC
From: Ronnie <rhughes4-removeme@swbell.net>
Message-ID: <KaWYf.62330$H71.35160@newssvr13.news.prodigy.com>
Source record: 61505
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Roy is right. I looked up RG62 and this is not the cable I have.
Here's what the autopilot service manual has to say about this
cable.

"The coaxial harness assembly CD-1, 2 and 3 is manufacued to specific
lenghts and since the cable is a part of the tuned circuit, these lengths
must
not be altered. The sensor leads are made of very fine wires that are fed
through a hollow insulator. Note that the fine wire has been coiled to
provide flexibility and reduce the possibility of beaking and causing an
open in the circuit."

The diagram shows a hollow tube with a fine wire that is coiled running
through it, a braid style shield over the hollow tube and an outer jacket
over the braid. It seems to be a variant of the auto coax where the fine
wire center conductor has been coiled instead of being left straight.

Thanks for all the help with this, but don't worry yourselves about it.
I have all the orginal pieces with connectors intact, but I was hoping
to find the technical specs on the cable so I could understand the
cable's impact on the resonant frequency.

Ronnie

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:12387jdrj3qgsd8@corp.supernews.com...
> Michael A. Terrell wrote:
>> . . .
>> One of the engineers at Delco told me it was RG-62, and 93 ohms when
>> I was going to their annual car radio training back in the early '70s.
>> IBM also used RG-62 on their coaxial computer networking, but they used
>> BNC connectors.
>
> The automotive coax I'm familiar with isn't RG-62.
>
> Like automotive coax, RG-62 has a thin walled hollow insulating tube. But
> RG-62 has a polyethylene "string" which is helically wound around the
> center conductor to keep it centered in the hollow tube. The coax in every
> old automotive installation I've seen lacks this PE "string", so the
> center conductor is free to flop around inside the hollow tube. The effect
> of the "string" is to make RG-62's Z0 constant and predictable, and it
> will also increase the capacitance somewhat. Constant Z0 isn't important
> for the automotive application, and low capacitance is important.
>
> It seems to me the center conductor is smaller in the automotive coax than

> in RG-62, also.
>
> Roy Lewallen, W7EL

415. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 21:29:20 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <sljsFnhwaDNEFAEq@ifwtech.co.uk>
Source record: 61508

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> I am simply telling you straight. If you find the implications
>>disturbing beyond the import of my actual words, that is beyond my
>>control.
>
>You are trying to tell me what I think when you have no clue
>as to what I am thinking. Excuse my French, but that is called
>mind-fucking, Ian. Please cease and desist from that practice.
>The only ethical and honest thing you can say about my postings
>is, "it seems to me that you are saying or thinking such and such ..."
>

I have no interest whatever in the workings of your mind. My only interest is in what you say to the outside world.

Based entirely on what you yourself have written, I have told you that you don't understand something. If you cannot handle that, and regard it as an attempt to invade your mind, then this whole thing has gone way too far.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

416. Re: Velocity Factors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 21:32:15 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <irc832pdcghlikejq1acc6kta48fhtoukj@4ax.com>
Source record: 61507

On Wed, 5 Apr 2006 21:09:10 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>I should like to know the velocity factors which occur on various
>twin-balanced transmission lines. We have -
>
>Open wire lines with infrequently spaced, flimsey spacers.
>
>450-ohm ladder lines of various sorts.

http://k6mhe.com/n7ws/Ladder_Line.pdf

417. Re: Phase shift through...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 21:45:09 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <0v6dnWLH_bj-p6nZnZ2dnUVZ_sSdnZ2d@comcast.com>
Source record: 61509

> K7ITM wrote:
>
SNIPPED ... Agree a capacitor tunes an 'long' antenna to resonance.
>>
>> When that physically long but electrically shortened to resonance
>> antenna is excited and a standing wave pattern develops, what is the
>> phase shift of the current through the loading capacitor? Is the
>> standing wave current on the two sides of the capacitor different, in a
>> manner similar to how it's different in a loading coil?
>>
SNIPPED

What's this current phase shift through a capacitor?

I believe it is a voltage phenomena. The incident and reflected waves induce voltage at the capacitor terminals. In HF systems the capacitor is very physically small, and the lumped model should suffice. [There is no long length of wire to confuse the model].

A vertical antenna has a characteristic impedance, depending on ground effects, proximity effects, etc. of somewhere between 200 and 500 ohms, typically 350 +/- ohms.[It's been a long time since I calculated the nominal value, but for basic understanding just use antenna Zo]. Apply a stimulus to the antenna and the signal propagates along the antenna governed by it's Zo. [Not the Zo of the transmission line at this point]. So, at the incident input side of the capacitor there is a v that is the integral of current [incident] times time. This voltage lags the incident current. At the reflected input side there is a voltage that is the integral of I [reflected] times time. This current is the reflected value and spatially delayed by the propagation time from the capacitor to the end of the antenna. This voltage lags the reflected current.

The net voltage across the capacitor is the spatial sum, NOTE: Spatial Sum, of the two voltages. Assuming To at the incident current input to the capacitor then the problem is simplified to the spatial [propagation delay to the end of the antenna and return].

So, current phase shift in the capacitor may be asking the wrong question.

418. Re: Balloon lifted wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 22:42:00 UTC
From: Tom Coates <tecoatesHatesSpam@comcast.net>
Message-ID: <ffCdnQlWVJ2P1anZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 61510

I read somewhere that hydrogen dissipates quickly in the outdoor air and is unlikely to ignite. I also read that the Hindenberg was coated with aluminum powder. After it exploded, the coating on the other airships was changed and there were no further accidents. But there is surely more to that story.

It would be interesting to know the relative costs of the two gases to the consumer. It would also be interesting to know about safety precautions common to both gases and how to compute practical lifiting capacity. .

Tom

"N7ZZT - Eric Oyen" <n7zzt@127.0.0.1> wrote in message
news:WsCVf.328$Fl.116@fed1read09...
> artie wrote:
>
>
> >
> > Helium is for pansies. Use hydrogen; it won't leak as fast (really --
> > those heliums are solitary little sneaky bastards and will get out of
> > anything, while hydrogens are diatomic and tend to stick around
> > longer).
> pardon me, but have you looked at the periodic table lately?
>
> Hydrogen is made up of a single proton and a single electron. it tends to
> leak through just about any material regardless of thickness. helium,
OTOH,
> is a construct of a proton, a neutron and a single electron (may have more
> than one depending on isotope, etc) and will tend not to leak nearly as
> much.
>
> Hydrogen is far more plentiful in the environment, but happens to be quite
> flammable (read that as EXPLOSIVE!). Helium is not flammable and much
> safer, though a bit harder to come by (hence its cost).
>
>
> --
> DE N7ZZT
> Eric Oyen
> Phoenix, Arizona
> e-mail: n7zzt(at)hotmail(dot)com
> the difference between intelligence and stupidity is that intelligence
> has its limits.

419. Re: Velocity Factors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 23:11:56 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ddh83218q24vbsrhme9iqlvvv26j9edhtp@4ax.com>
Source record: 61511

On Wed, 5 Apr 2006 21:09:10 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>I should like to know the velocity factors which occur on various
>twin-balanced transmission lines. We have -

Some of these are included in my line loss calculator at
http://www.vk1od.net/tl/tllce.php and are displayed along with
calculated results. See below...

>
>Open wire lines with infrequently spaced, flimsey spacers.
>
>450-ohm ladder lines of various sorts.

Wes' measurements of Wireman lines are shown as Wireman 551 .. 554.

>
>300-ohm lines spaced with a thin continuous web.

I have measured TV ribbon of this type with a 7.5mm conductor spacing
and IIRC was around 82%. Similar line with puched out peices was
around 87% from memory. I you need, I can measure the punched type, I
am not sure if I have the plain ribbon around.

>
>130-ohm lines with two insulated wires stuck close together like twin
>speaker cable.

See ZIP 105 for K8ZOA's measurements of US Zip cord. See Australian
twin flex for my measurements of Oz figure 8 flex.

>
>75-ohm lines embedded in a solid eliptical-shaped polythene.

See Belden 8210 and 8222 (from Belden specs).

>
>I daresay some of you have made measurements at one time or another.
>The more data received the better. I can then take averages.

I can see someone wanting to by 10m of "average cable"... but I think
I know what you mean!

Hope this helps.

Owen
--

420. Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 23:33:13 UTC
From: Thomas anonymous <Thomas.anonymous.25toz8@news.radiobanter.com>
Message-ID: <Thomas.anonymous.25toz8@news.radiobanter.com>
Source record: 61429

How critical is it to mount twinlead feedline (300 ohm TV ribbon type) so that it doesn't come into contact with anything? Obviously, with bare ladder-line type feeders it's absolutely essential (to prevent shorting!), but what about the insulated type of 300 ohm twinlead --- can you have it run next to wood, say, or even metal as long as there is no conduction between the inner conductors and anything metal that might cut through the insulation? I've heard that Home Depot has a newer type of 300 ohm twinlead that is oval, almost circular in cross section because it is foam filled and thus if it were to be lying on top of something, or next to something, there would be an extra 'cushion' between the current carrying wires inside and anything outside the wires so would that mean it would be OK to run this type feedline up against the wall of a house? Or would it also be absolutely essential to somehow mount it so that it is free and clear of anything?
73 from Canada
VA7FAB

--
Thomas anonymous

421. Unknown coax id help?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 23:36:26 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <6wYYf.4689$fS6.618@dukeread11>
Source record: 61512

The label on this coax reads:

"CFD200-NL LOW LOSS 50 OHM COAXIAL CABLE COMMATE/PEWC 3D"

All I could find was a spec saying it has a VF of .83 and I measured
the OD (0.195"). The cable is very stiff for it's size - like 9913 almost.

Anyone care to guess? I'd love to take it apart (it's a RP-TNC - N Male 5'
pigtail) but it's such a nice job I don't want to. Maybe it's a copy of
LMR-200?

I'll be using it to connect my 802.11b/g equipment (100mW, 2412mhz) to the
main feedline (30' flexi 4xl with clamp type N connectors feeding a 16 el
collinear antenna at 25' agl).

Help?

--
73's de Ken KG0WX - Kadiddlehopper #11808,
Flying Pigs #-1055, Grid EM17io,
Elecraft K2 #4913, XG2, 4SQRP Tenna Dipper,
Heath GD-1B, MP-1(X)antenna

422. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 23:37:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qck8321bufervs0iord35k2lnnhifolqo5@4ax.com>
Source record: 61513

On Wed, 5 Apr 2006 13:51:11 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>But graphic representation gives rough idea to realize that it is not
>unimportant or worthy ignoring.

Hi Yuri,

But it gives nothing of that impression at all. If it were important,
then you could give me solid numbers instead of an art review.

>If you wanna get precise metrics, stick the two versions of coil definition
>in the EZNEC, generate the curves and compare areas under the curve from the
>top of the coil to the tip. Then tell us that is negligible and was not
>worth of this exercise.

Yuri, I did that two years ago. You have yet to disagree with the
pitiful difference and the best chance of you doing it yourself is:

>I will get to it soon too.

I heard that two years ago too.

You don't give any impression that the topic at hand is nearly as
important to you as duking it out with Tom. But if after two years of
swinging and you still haven't connected a solid KO, don't expect us
to hand you a TKO (because your Technical part is a marshmallow
punch).

73's
Richard Clark, KB7QHC

423. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 23:49:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2gl83250938id6bp54hodrkenm2mffnoje@4ax.com>
Source record: 61514

On Wed, 5 Apr 2006 15:07:53 -0500, "Richard Fry" <rfry@adams.net>
wrote:

>The rest of the examples in your post are based on your invalid assumption,
>for which my response is given above.

Sounds like you have a problem following context. The Xerox school of
churning out references and loose associations is already chaired by
Cecil.

73's
Richard Clark, KB7QHC

424. Re: Phase shift through...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-05 23:56:19 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <DOYYf.12244$tN3.1109@newssvr27.news.prodigy.net>
Source record: 61515

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> You sure use a lot of words to signify the fact that you're
>> sunk, Cecil, and don't have a clue.
>
>
> The technical content of your posting is duely noted, Tom,
> for all the world to observe. Do you really believe that
> such an ad hominem gut feeling statement has any impact or
> technical value at all? (Rhetorical question)
>
> It reminds me of what an eight year old would say.
>
> If you really want to make a technical impact, please
> respond to my tabular data table concerning EZNEC traveling
> wave current values Vs standing wave current values.

Cecil, you've proven over and over again that you're not
interested in technical discussion. You are interested in
argument and a crude sort of digladiation where you do the
verbal equivalent of kicking, biting, hitting below the belt,
rabbit and sucker punching, throwing sand, popping
steroids and amphetamines,and shooting people in the back.
All this is being duly noted by the participants who by
now have consigned your theories to the fractal junk pile.
Come back when you're really interested in a technical
discussion. The kind of discourse you enjoy is only fit
for ending marriages.
73,
Tom Donaly, KA6RUH

425. Re: Unknown coax id help?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 00:04:37 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144281876.977729.3010@j33g2000cwa.googlegroups.com>
Source record: 61516

Maybe these folk can tell you:
http://www.dmtonline.dk/products.asp?id=187&cat=Pigtails

(The suggestion is that it's like LMR-200, just as you suspect.)

Cheers,
Tom

426. Re: Unknown coax id help?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 00:16:06 UTC
From: Ed <Huckleberry_REMOVE_@newsguy.com>
Message-ID: <Xns979CB0084585Cspectrumhogstarbandn@198.186.192.196>
Source record: 61517

> The label on this coax reads:
>
> "CFD200-NL LOW LOSS 50 OHM COAXIAL CABLE COMMATE/PEWC 3D"
>
> All I could find was a spec saying it has a VF of .83 and I measured
> the OD (0.195"). The cable is very stiff for it's size - like 9913
> almost.
>
> Anyone care to guess? I'd love to take it apart (it's a RP-TNC - N
> Male 5' pigtail) but it's such a nice job I don't want to. Maybe it's
> a copy of LMR-200?

I guess my Google skills are better than yours! :^)

Try: http://www.commate.com.tw/

Click on "Low Loss Cables,

then click on "CFD200"

Looks pretty Lossy, to me, if you are going to use it at 2.6GHz.

Ed K7AAT

427. Re: Unknown coax id help?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 00:24:54 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <ydZYf.4694$fS6.2786@dukeread11>
Source record: 61518

"Ed" <Huckleberry_REMOVE_@newsguy.com> wrote in message
news:Xns979CB0084585Cspectrumhogstarbandn@198.186.192.196...
>
> > The label on this coax reads:
> >
> > "CFD200-NL LOW LOSS 50 OHM COAXIAL CABLE COMMATE/PEWC 3D"
> >
> > All I could find was a spec saying it has a VF of .83 and I measured
> > the OD (0.195"). The cable is very stiff for it's size - like 9913
> > almost.
> >
> > Anyone care to guess? I'd love to take it apart (it's a RP-TNC - N
> > Male 5' pigtail) but it's such a nice job I don't want to. Maybe it's
> > a copy of LMR-200?
>
>
>
> I guess my Google skills are better than yours! :^)
>
> Try: http://www.commate.com.tw/
>
> Click on "Low Loss Cables,
>
> then click on "CFD200"
>
> Looks pretty Lossy, to me, if you are going to use it at 2.6GHz.
>
>
> Ed K7AAT

Actually, I did google and yahoo and I saw the reference to the tw
website but I passed, fearing language problems. Guess I should
have given it a look see.

Lossy? My math says 0.845 db loss for my 5' pigtail - from what
I've read recently that's not to bad for a rg-58 size pigtail, esp. on
2.4 gigs...

Maybe I'm wrong? Feel free to teach me. :-)

Thanks for the link.

Ken KG0WX

428. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 00:51:45 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <4434655c_5@newsfeed.slurp.net>
Source record: 61519

"Richard Clark"wrote
> Sounds like you have a problem following context.

No, from your posts IMO it is YOU who has a problem with your reading comprehension, and/or possibly your professional integrity.

I posted "The effective electrical length of a MW monopole radiator determines its resonant frequencies, and that must include the velocity of propagation along the structure -- which is a function of the height AND width of the radiator (mainly), and the operating frequency." I have also posted several references in the literature which support this in technical detail.

You then posted "3. this does not explain how a 118.60ï¿½ tall antenna comes to be resonant ," and several ridiculous examples of broadcast tower widths of 364 feet and more that you falsely attribute as flowing from my statements.

Contrary to your recent post, I have never written anything that remotely implied that your 118.60 degree radiator, or a broadcast radiator of any other length can/should be made self-resonant by the use of an impractical ratio of width to length. I have posted several times that (conventional) broadcast radiators that are not self-resonant are brought to resonance at the feedpoint by the use of a matching network there.

If you can find ANYTHING in my posts on this subject to support your statements, please quote them to the NG. Otherwise I suggest you let this thread close, and (hopefully), learn from it.

RF

429. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 01:18:19 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144286299.951209.276980@z34g2000cwc.googlegroups.com>
Source record: 61520

I'm not at all sure what all the hoop-lah following Richard Fry's
posting reproduced below is all about. What Richard wrote is accurate,
as he says confirmed by NEC simulation, and also from the
King-Middleton second-order theory of linear antennas. From the date,
it sounds like Brown's paper was a confirmation of the theory,
actually. An antenna resonant at 95% of a freespace quarter wave,
above perfect ground, would be about 150 times as long as its
diameter--a 75 meter tower about half a meter effective diameter. NEC
gives slightly different numbers, but perhaps more interesting is that
even for VERY thin wires, the resonant length is noticably shorter than
a freespace quarter wave. A wire a millionth as thick as it is long
still shows resonance more than a percent shorter than the freespace
wavelength.

It's an interesting observation, but I thought everyone (with a serious
interest in antennas) would know about it.

The effect at full-wave dipole resonance/half-wave above a ground plane
is considerably more pronounced, over ten percent for a moderately
thick antenna.

Cheers,
Tom

Richard Fry wrote in Message-ID: <44326790_1@newsfeed.slurp.net>:

"Richard Harrison" wrote:
> It is the convention to describe AM broadcast towers in electrical
> degrees. Harold Ennes reprints an RCA resistance chart for heights
> between 50 and 200 degrees in "AM-FM Broadcast Maintenance".

> Formula given is:
> Height in electrical degrees = Height in feet X frequency in kc X
> 1.016 X 10 to the minus 6 power.

If electrical length is defined as the physical condition where
feedpoint
reactance is zero (e.g., resonance), then the true electrical length of
an
AM broadcast radiator on a given frequency is a function of the
physical
length AND physical width of that radiator. This was proven
experimentally,
and documented by George Brown of RCA Labs in his paper "Experimentally
Determined Impedance Characteristics of Cylindrical Antennas" published

in
the Proceedings of the I.R.E. in April, 1945. It also has been proven
in
thousands of independent measurements of AM broadcast radiators ever
since.

The curves in Figure 3 of Brown's paper show the feedpoint reactance
terms
of the base impedance of an unloaded monopole of various lengths and
widths,
working against a nearly perfect ground plane. Those values cross the
zero
reactance axis at physical heights ranging from about 80 degrees (for
the
widest radiator) to about 86 degrees for the most narrow.

Brown calculated height in degrees as (Physical Height in feet x
Frequency
in kHz) / 2725 . Brown's equation, the one in the Harold Ennes quote
above, and the one that the FCC uses in their published data all define
only
the relationship of the physical length of the radiator to its
free-space
wavelength in degrees at that frequency.

But clearly these lengths in degrees do not define the self-resonant
length
of that radiator. The self-resonant length, invariably, will be
shorter by
several percent. This fact is easily confirmed by simple NEC models,
for
those who want to probe into George Brown's data.

Tables relating a single value of base impedance as typical for towers
of
various electrical heights (only) must be read with an understanding of
the
above realities. For example, Ennes' list shows a tower of 90
electrical
degrees to have zero reactance. But Brown's 1945 paper and a great
amount
of later field experience shows that this is incorrect, for the
conventional
use of this term.

RF

430. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 01:22:57 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <R3_Yf.8731$4L1.1965@newssvr11.news.prodigy.com>
Source record: 61521

Ian White GM3SEK wrote:
> Based entirely on what you yourself have written, I have told you that
> you don't understand something.

Are the odds zero that it might be your misunderstanding?

Please respond to this previous posting:

The testx.EZ file has been renamed to:

http://www.qsl.net/w5dxp/TravWave.EZ

The testy.EZ file has been renamed to:

http://www.qsl.net/w5dxp/StndWave.EZ

The current reported by EZNEC for TravWave.EZ contains the term
cos(kz+wt) It's a traveling wave current, clearly not the same
as a standing wave current.

The current reported by EZNEC for StndWave.EZ contains the terms
cos(kz)*cos(wt) It's a standing wave current, clearly not the
same as a traveling wave current.

Current reported by EZNEC every 10% of wire #2 is presented in
the following table. The currents are obviously very different.
The phase of the traveling wave progresses from 0 to 90 deg
in 90 deg of wire. The phase of the standing wave doesn't
progress beyond 0.11 of of degree.

% along current in current in
wire #2 TravWave.EZ StndWave.EZ

0% 0.9998 at -0.99 deg 0.9996 at 0 deg
10% 0.9983 at -9.39 deg 0.9843 at -0.03 deg
20% 0.9969 at -18.23 deg 0.9454 at -0.05 deg
30% 0.9957 at -27.59 deg 0.8843 at -0.06 deg
40% 0.9949 at -35.96 deg 0.8023 at -0.08 deg
50% 0.9945 at -44.84 deg 0.7014 at -0.09 deg
60% 0.9945 at -54.20 deg 0.5840 at -0.09 deg
70% 0.9949 at -62.58 deg 0.4528 at -0.10 deg
80% 0.9956 at -71.43 deg 0.3110 at -0.11 deg
90% 0.9965 at -80.27 deg 0.1616 at -0.11 deg
100% 0.9976 at -89.14 deg 0.0061 at -0.11 deg

Some say "current is current". EZNEC disagrees. When
reflected waves are eliminated, EZNEC indeed does accurately
report traveling wave current. EZNEC reports the current

that is there, whether it is traveling wave current or
standing wave current.
--
73, Cecil http://www.qsl.net/w5dxp

431. Re: RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 01:23:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5sq83213dpdabdpgngclbon5tecso1lc7r@4ax.com>
Source record: 61522

On Wed, 5 Apr 2006 12:56:35 -0700, "Joel Kolstad"
<JKolstad71HatesSpam@yahoo.com> wrote:

>Richard,
>
>> Having done it often, I can say it is far, far simpler than that. It
>> is obtained through the evanescent mode and optical couplers just like
>> RF couplers work on the exactly the same principle.
>
>I'm told that this approach is relatively easy to detect in that it requires a
>fair amount of mechanical motion to achieve.

Hi Joel,

You mean the actual abrasion preceding the bonding?

>Single-mode fiber is often used
>to detect minute changes in, e.g., bridges,

Yes, I am very familiar with those applications. They are wholly
devoted to that use, not data.

>and the idea is that -- while
>there may be other causes of significant mechanical motion to a fiber --
>detecting it in the case of a secure line is cause for investigation.

You are describing paranoia. Somehow, I think in the heady dot.com
days when 95% of this stuff was put into surplus, absolutely no one
worried about this. OK, maybe someone, no one here knows who they
are.

>I've also been told, however, that you can use completely non-invasive
>(mechanically) techniques to sniff fiber... something involving the
>back-scatter of neutrons or somesuch. Don't know how much of that was
>science-fiction vs. readily doable with the funding of a major government,
>though.

Heh heh, that was probably dreamt up by the paranoid ones. Experience
has always shown that "security experts" (those who roll their own)
are the most vulnerable. You don't need advanced degrees in
interstellar physics to read their mail. Simply look at the DVD
encryption model. It was busted by 35 lines of code. Look at
Homeland Security, and then think Katrina.

73's
Richard Clark, KB7QHC

432. Re: Phase shift through...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 01:26:04 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <M6_Yf.8733$4L1.7523@newssvr11.news.prodigy.com>
Source record: 61523

Tom Donaly wrote:
> Cecil, you've proven over and over again that you're not
> interested in technical discussion.

Allow me to disprove your opinion of me. Please respond to
this earlier posting of mine:

The testx.EZ file has been renamed to:

http://www.qsl.net/w5dxp/TravWave.EZ

The testy.EZ file has been renamed to:

http://www.qsl.net/w5dxp/StndWave.EZ

The current reported by EZNEC for TravWave.EZ contains the term
cos(kz+wt) It's a traveling wave current, clearly not the same
as a standing wave current.

The current reported by EZNEC for StndWave.EZ contains the terms
cos(kz)*cos(wt) It's a standing wave current, clearly not the
same as a traveling wave current.

Current reported by EZNEC every 10% of wire #2 is presented in
the following table. The currents are obviously very different.
The phase of the traveling wave progresses from 0 to 90 deg
in 90 deg of wire. The phase of the standing wave doesn't
progress beyond 0.11 of of degree.

% along current in current in
wire #2 TravWave.EZ StndWave.EZ

0% 0.9998 at -0.99 deg 0.9996 at 0 deg
10% 0.9983 at -9.39 deg 0.9843 at -0.03 deg
20% 0.9969 at -18.23 deg 0.9454 at -0.05 deg
30% 0.9957 at -27.59 deg 0.8843 at -0.06 deg
40% 0.9949 at -35.96 deg 0.8023 at -0.08 deg
50% 0.9945 at -44.84 deg 0.7014 at -0.09 deg
60% 0.9945 at -54.20 deg 0.5840 at -0.09 deg
70% 0.9949 at -62.58 deg 0.4528 at -0.10 deg
80% 0.9956 at -71.43 deg 0.3110 at -0.11 deg
90% 0.9965 at -80.27 deg 0.1616 at -0.11 deg
100% 0.9976 at -89.14 deg 0.0061 at -0.11 deg

Some say "current is current". EZNEC disagrees. When
reflected waves are eliminated, EZNEC indeed does accurately
report traveling wave current. EZNEC reports the current
that is there, whether it is traveling wave current or

standing wave current.
--
73, Cecil http://www.qsl.net/w5dxp

433. Re: Balloon lifted wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 01:35:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ehr8325egphabupspvab6dfcqahkqqa2p3@4ax.com>
Source record: 61524

On Wed, 5 Apr 2006 18:42:00 -0400, "Tom Coates"
<tecoatesHatesSpam@comcast.net> wrote:

>It would be interesting to know the relative costs of the two gases to the
>consumer. It would also be interesting to know about safety precautions
>common to both gases and how to compute practical lifiting capacity. .

Hi Tom,

At the time (ca. Hitler), the US dominated the world in Helium
production and we withheld stocks from Germany. Their choice of
Hydrogen was not strictly due to its lifting capacity.

Computation is called buoyancy. You start with the volume of the gas
sack. Fill it with air and weigh it. Replace the air with anything
else, and weigh it. The difference is the lift. To skip the scales,
and simply find the weight, you compare molar weights. Look 'em up on
the old fashioned Periodic Table of elements.

73's
Richard Clark, KB7QHC

434. Re: building a yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 01:42:24 UTC
From: Steven Polczynski <spolczynski82@gsbcglobal.net>
Message-ID: <4m_Yf.62380$H71.12519@newssvr13.news.prodigy.com>
Source record: 61525

You can get aluminum tubing from an aircraft supplier. it comes in 12'
lengths.

it would be a pretty expensive antenna but would last a long time.

"Leadfoot" <Ledfoot02@hotmail.com> wrote in message
news:hu3Uf.7382$lb.659961@news1.epix.net...
>I going to build a 11 element yagi but the problem I'm having is I can't
>find the aluminum rods, I was wondering if I use copper if I will still get
>the same Db gain.
>
> I was thinking of another metal was to use brake line from a car that I
> can get in the auto parts store.
>
> Thanks
> Ledfoot
>
>

435. Re: Unknown coax id help?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 02:15:07 UTC
From: Ed <Huckleberry_REMOVE_@newsguy.com>
Message-ID: <Xns979CC435E956Aspectrumhogstarbandn@198.186.192.196>
Source record: 61426

> Actually, I did google and yahoo and I saw the reference to the tw
> website but I passed, fearing language problems. Guess I should
> have given it a look see.
>
> Lossy? My math says 0.845 db loss for my 5' pigtail - from what
> I've read recently that's not to bad for a rg-58 size pigtail, esp. on
> 2.4 gigs...
>
> Maybe I'm wrong? Feel free to teach me. :-)

No, Ken, you're not wrong. I forgot you were only using a 5'
pigtail.... although you could probably get lower loss stuff. I don't
know what your application is, but you're right.... probably doesn't
matter that much.

Ed

436. Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 02:22:04 UTC
From: amdx <amdx@worldnet.att.net>
Message-ID: <74ac6$44347c7f$45011502$11431@KNOLOGY.NET>
Source record: 61427

Hi All,

Info below from the following site----
http://www.ee.surrey.ac.uk/Workshop/advice/coils/mu/index.html#bhcurve

Unlike electrical conductivity, permeability is often a highly non-linear
quantity. Most coil design formul&#65533;, however, pretend that it is a linear
quantity.

==========

My question is-

If I wind a transformer using the specified A sub L and then use that
transformer in a receive antenna where the voltages are very small, wouldn't
I be low on the curve and cause the transformer to function poorly
especially at the lowest frequency of the design?

Mike

PS Thinking about a Flag antenna, which has a small output signal.

437. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 02:51:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12390ho8oit9539@corp.supernews.com>
Source record: 61428

amdx wrote:
> Hi All,
>
> Info below from the following site----
> http://www.ee.surrey.ac.uk/Workshop/advice/coils/mu/index.html#bhcurve
>
> Unlike electrical conductivity, permeability is often a highly non-linear
> quantity. Most coil design formuli¿½, however, pretend that it is a linear
> quantity.
>
> ==========
>
> My question is-
>
> If I wind a transformer using the specified A sub L and then use that
> transformer in a receive antenna where the voltages are very small, wouldn't
> I be low on the curve and cause the transformer to function poorly
> especially at the lowest frequency of the design?
>
> Mike
>
> PS Thinking about a Flag antenna, which has a small output signal.

Al is usually the value for low flux density. That is, it's the value you'll have when the flux level is low. Permeability will drop from there at high flux levels.

If you're making a broadband (untuned) transformer, you only need to insure that the winding impedance is high enough. If you design it to have adequate impedance at the lowest frequency, you should be ok for frequencies above that. If you're making a tuned transformer, you'll probably be using either powdered iron core or a ferrite core with a big air gap in the magnetic path like a ferrite rod. Either will withstand many orders of magnitude of flux density above what a received signal will produce before there's any noticeable change in permeability.

The assumption of constant permeability is often a reasonable one. Change in permeability with flux density is certainly nothing you have to worry about in a receiving application unless you've got a lot of turns and a lot of DC current in the winding.

Roy Lewallen, W7EL

438. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 03:13:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lpt832hp70p3prj0c19df7ddlukctjtef9@4ax.com>
Source record: 61430

On Wed, 5 Apr 2006 19:51:45 -0500, "Richard Fry" <rfry@adams.net>
wrote:

>"Richard Clark"wrote
>> Sounds like you have a problem following context.
...
>If you can find ANYTHING in my posts on this subject to support your
>statements, please quote them to the NG.

What a tedious imposition to have to repeat correspondence, but if
that is your price, then only one example in full:

>On Tue, 4 Apr 2006 12:11:20 -0500, "Richard Fry" <rfry@adams.net>
>wrote:
>
>>The effective electrical length of a MW monople radiator determines its
>>resonant frequencies, and that must include the velocity of propagation
>>along the structure -- which is a function of the height AND width of the
>>radiator (mainly), and the operating frequency.
>
>>>KYMN 118.60ï¿½ tall 92.3 meters tall 1080 kHz
>>>re:
>>>http://www.fcc.gov/mb/audio/amq.html

The FCC recitation of these facts is one such MW monopole radiator.

We proceed to YOUR reference:
>>"Antenna Engineering Handbook," 2nd edition (pub. 1984), by Johnson and
>>Jasik
specifically to YOUR point
>>a function of the height AND width
which is manifest in figure 4-4.

If you cannot resolve that graph, and for others reading, it shows a
family of curves constructed on the basis of A/D which is elsewhere
described as Length over Diameter.

For a radiator of 118.60ï¿½ tall the only curve passing through zero
reactance is assigned an A/D of 20. A is already known and is
118.60ï¿½. It then follows to satisfy the A/D of 20 drives the value of
D to be 5.93ï¿½ which for a wavelength of 277.8 meters works out to be a
diameter of 4.58 meters (corrected from my computational error
earlier).

In EZNEC the thin wire model reveals a source Z of:
Impedance = 97.63 + J 371.5 ohms
which confirms against figure 4-4's example for an A/D=1000

I don't know the validity of forcing the radiator to the 4.58 meter specification, but EZNEC clearly shows that move drives out reactance with a source Z of:
Impedance = 133.8 + J 78.91 ohms
This, too, conforms to figures 4-3 and 4-4 to within acceptable limits of error. If that offends your sense of accuracy, we can take it outside.

I see no need to proceed further along lines that clearly follow the precepts offered by J&J.

Now, returning to the diameter that has been proven to be necessary to resonate this instance which you dismiss as "ridiculous examples," my comment about seeing very few towers that exhibit this magnitude of diameter (the size of my living room) still stands as unimpeached.

Going further into your cavalier dismissal of "ridiculous examples" we find that there are a forest of very short antennas in service. My link provides so many in one frequency assignment that the force of numbers cannot be denied so simply, and certainly when lacking technical rebuttal. Those offered such as:
>>WXNH 56.30ï¿½ tall 540 kHz
when run through the same exercise above (YOUR reference, YOUR claims) reveals a necessary A/D of LESS THAN 5. The simple math resounds with the implications of necessary diameter to resonate this through (YOUR claims YOUR quotes of):
>"The effective electrical length of a MW monopole radiator
>determines its resonant frequencies, and that must include the velocity of
>propagation along the structure -- which is a function of the height AND
>width of the radiator (mainly), and the operating frequency."

For a wavelength of 555.6 meters, that A/D resolves D to a value of 111 meters (and this arbitrary selection of A/D=5 is NOT the necessary value it is less) or the 364 feet. I see no reason to impeach J&J by attempting this with EZNEC for a result that is so obviously absurd in the real world to achieve.

This absurdity reveals that it takes much more than these intellectual shenanigans of height AND (YOUR emphasis) width to resonate a short antenna. Please note THIS context which has been part and parcel to these threads for more than 1000 pieces of correspondence.

Hence, the suite of recited example antennas clearly exhibit an expressed height, in degrees, that are strictly an expression of their physical height in terms of wavelength, and have nothing to do with their being resonant OR non-resonant. It is equally clear that in their service, there have been means made to resonate them, and that does not impact their height description either.

73's
Richard Clark, KB7QHC

p.s.
>No, from your posts IMO it is YOU who has a problem with your reading

>comprehension, and/or possibly your professional integrity.
This is an amateur forum, and I don't trade on my professional credentials to retail them as proof. Reading comprehension is best left to the rest to evaluate; and as many express confusion, or difficulty with my writing, none have challenged my data. I can live with their confusion, and justify that with a quote from Dr. Samuel Johnson, courtesy of his biographer James Boswell:

Johnson having argued for some time with a pertinacious gentleman;
his opponent, who had talked in a very puzzling manner, happened
to say,
"I don't understand you, Sir"
upon which Johnson observed,
"Sir, I have found you an argument;
but I am not obliged to find you an understanding."

439. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 03:35:28 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <44348C60.D9909E41@earthlink.net>
Source record: 61431
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Roy Lewallen wrote:
>
> Michael A. Terrell wrote:
> > . . .
> > One of the engineers at Delco told me it was RG-62, and 93 ohms when
> > I was going to their annual car radio training back in the early '70s.
> > IBM also used RG-62 on their coaxial computer networking, but they used
> > BNC connectors.
>
> The automotive coax I'm familiar with isn't RG-62.
>
> Like automotive coax, RG-62 has a thin walled hollow insulating tube.
> But RG-62 has a polyethylene "string" which is helically wound around
> the center conductor to keep it centered in the hollow tube. The coax in
> every old automotive installation I've seen lacks this PE "string", so
> the center conductor is free to flop around inside the hollow tube. The
> effect of the "string" is to make RG-62's Z0 constant and predictable,
> and it will also increase the capacitance somewhat. Constant Z0 isn't
> important for the automotive application, and low capacitance is important.
>
> It seems to me the center conductor is smaller in the automotive coax
> than in RG-62, also.
>
> Roy Lewallen, W7EL

I saw both types on car radio antennas, and some was clearly marked
RG-62. Both types meet the original RG62 specification, they just use
two different methods to minimize dielectric losses, like fused disk
hardline used in CATV and other applications that require low loss
cabling. Also, why would one of the Delco engineers who designed their
car radios lie about the coax they used? He was explaining the then
brand new AM/FM/8-track combo when I asked a number of questions about
the RF front end. As usual, you will continue to believe whatever you
want to.

--
Service to my country? Been there, Done that, and I've got my DD214 to
prove it.
Member of DAV #85.

Michael A. Terrell
Central Florida

440. Re: Unknown coax id help?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 03:53:25 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <1h0Zf.4710$fS6.1223@dukeread11>
Source record: 61432

"Ed" <Huckleberry_REMOVE_@newsguy.com> wrote in message
news:Xns979CC435E956Aspectrumhogstarbandn@198.186.192.196...
>
> > Maybe I'm wrong? Feel free to teach me. :-)
>
>
> No, Ken, you're not wrong. I forgot you were only using a 5'
> pigtail.... although you could probably get lower loss stuff. I don't
> know what your application is, but you're right.... probably doesn't
> matter that much.
>
> Ed

I'm just trying to extend my wireless access point's range so I
can go to a park nearby, operate /qrp/portable with my K2 yet
still be able to check the dx cluster, email, etc. So far, I've
equipped my ThinkPad with an Atheros high performance WiFi
internal radio driving a pair of 4 element coaxial collinear antennas,
acquired a V4 Linksys WRT54G router and designed & built a
16 element base version of the collinear antenna.

I've got the needed parts enroute to put the base antenna up 25'
and the firmware needed for the router to do all sorts of things, like,
increase the TX power, go to client mode for rf survey's, stuff like
that.....

The pigtail antenna lead is just to make the transition from N
connectors to the RP-TNC that the router uses and to protect
the router from excess cable strain from the Flexi4xl coax.

Just a way to spend money and kill time and - oh yea - learn
some neat technology along the way.

Next week, kids, we'll discuss the pro's and con's of 160 meter
quad equipped diversity antenna systems.......

lol!

Ken KG0WX

441. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 04:05:43 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144296343.077387.318990@t31g2000cwb.googlegroups.com>
Source record: 61433

Richard, Richard, Richard. Clark, that is. Shame on you. Get a grip. Richard Fry's list simply showed that in the FCC listing, the length in degrees is calculated on the basis of freespace speed of light. In addition, he was pointing out that resonance is not at 90 degrees, calculated in that manner. THAT point is supported by other data. The FCC data didn't come into play with respect to that point. All that was obvious to me.

Do you disagree that resonance of a monopole over a ground plane is for a length somewhat shorter than c/(4*f(resonance))? If you do, then let's have a discussion about THAT.

Cheers,
Tom

442. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 04:20:09 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144297209.793007.57810@t31g2000cwb.googlegroups.com>
Source record: 61434

I agree with Roy that the linearity of coils wound on powdered iron cores is unlikely to be a problem for you. A while back, I had occasion to question if some filters we use, made with small powdered iron toroid core inductors, were causing distortion, so I built up some similar filters with air-core coils and very good capacitors that I knew would not distort. The result was "no change". That corresponds in this case to third order intercepts in excess of +50dBm, which would be considered at least pretty good by all but the fanatics for use in receivers. I don't know how much in excess of +50dB, because that was about the limit of what I could see in that test. Also, I know that the broadband transformers used in the best H-mode mixers have allowed those mixers to perform at similarly high--and higher--third order intercepts. I suppose those transformers are transmission-line types, wound on ferrite cores.

Cheers,
Tom

443. Re: Any recomends on a Auto tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 04:24:54 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns979CD9D81AEBCdoldridgsprintca@64.59.135.159>
Source record: 61435

"AC7PN" <brunius@rockisland.com> wrote in news:1144131333.335354.304620
@v46g2000cwv.googlegroups.com:

>>Yeah, my MFJ 993B does the same thing, but the coax losses will KILL your
>>signal!
>
>
>
> What, are you using 300ft of RG58?

No, just 37 feet of RG8X. But that's enough to have significant losses
when the SWR is up in the 30-60 range, which it easily reaches if I put the
wrong whip on the mount.

--
Dave Oldridge+
ICQ 1800667

444. Re: The Seven Warning Signs of Bogus Science

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 04:27:39 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns979CDA4ED81B1doldridgsprintca@64.59.135.159>
Source record: 61436

cliff wright <c.c.wright@paradise.net.nz> wrote in
news:4433484d@clear.net.nz:

> Dave Oldridge wrote:
>> cliff wright <c.c.wright@paradise.net.nz> wrote in news:4430a096
>> @clear.net.nz:
>>
>>
>>>Irv Finkleman wrote:
>>>
>>>>I thought this article might be of interest in that we often see
>>>>claims about certain types of antennas which fall into the
>>>>category.
>>>>
>>>>From
>>>>http://chronicle.com/free/v49/i21/21b02001.htm
>>>>
>>>>POINT OF VIEW
>>>>The Seven Warning Signs of Bogus Science
>>>>By ROBERT L. PARK
>>>>
>>>>The National Aeronautics and Space Administration is investing close
>>
>> to
>>
>>>>a million dollars in an obscure Russian scientist's antigravity
>>>>machine, although it has failed every test and would violate the
>>>>most fundamental laws of nature. The Patent and Trademark Office
>>>>recently issued Patent 6,362,718 for a physically impossible
>>>>motionless electromagnetic generator, which is supposed to snatch
>>>>free energy
>>
>> from
>>
>>>>a vacuum. And major power companies have sunk tens of millions of
>>>>dollars into a scheme to produce energy by putting hydrogen atoms
>>>>into a state below their ground state, a feat equivalent to mounting
>>>>an expedition to explore the region south of the South Pole.
>>>>
>>>>There is, alas, no scientific claim so preposterous that a scientist
>>>>cannot be found to vouch for it. And many such claims end up in a
>>
>> court
>>

>>>>of law after they have cost some gullible person or corporation a
>>>>lot of money. How are juries to evaluate them?
>>>>
>>>>Before 1993, court cases that hinged on the validity of scientific
>>>>claims were usually decided simply by which expert witness the jury
>>>>found more credible. Expert testimony often consisted of tortured
>>>>theoretical speculation with little or no supporting evidence.
>>>>Jurors were bamboozled by technical gibberish they could not hope to
>>>>follow, delivered by experts whose credentials they could not
>>>>evaluate.
>>>>
>>>>In 1993, however, with the Supreme Court's landmark decision in
>>
>> Daubert
>>
>>>>v. Merrell Dow Pharmaceuticals, Inc. the situation began to change.
>>
>> The
>>
>>>>case involved Bendectin, the only morning-sickness medication ever
>>>>approved by the Food and Drug Administration. It had been used by
>>>>millions of women, and more than 30 published studies had found no
>>>>evidence that it caused birth defects. Yet eight so-called experts
>>
>> were
>>
>>>>willing to testify, in exchange for a fee from the Daubert family,
>>
>> that
>>
>>>>Bendectin might indeed cause birth defects.
>>>>
>>>>In ruling that such testimony was not credible because of lack of
>>>>supporting evidence, the court instructed federal judges to serve as
>>>>"gatekeepers," screening juries from testimony based on scientific
>>>>nonsense. Recognizing that judges are not scientists, the court
>>
>> invited
>>
>>>>judges to experiment with ways to fulfill their gatekeeper
>>>>responsibility.
>>>>
>>>>Justice Stephen G. Breyer encouraged trial judges to appoint
>>>>independent experts to help them. He noted that courts can turn to
>>>>scientific organizations, like the National Academy of Sciences and
>>
>> the
>>
>>>>American Association for the Advancement of Science, to identify
>>>>neutral experts who could preview questionable scientific testimony

>>
>> and
>>
>>>>advise a judge on whether a jury should be exposed to it. Judges are
>>>>still concerned about meeting their responsibilities under the
>>>>Daubert decision, and a group of them asked me how to recognize
>>>>questionable scientific claims. What are the warning signs?
>>>>
>>>>I have identified seven indicators that a scientific claim lies well
>>>>outside the bounds of rational scientific discourse. Of course, they
>>>>are only warning signs -- even a claim with several of the signs
>>>>could be legitimate.
>>>>
>>>>1. The discoverer pitches the claim directly to the media. The
>>>>integrity of science rests on the willingness of scientists to
>>>>expose new ideas and findings to the scrutiny of other scientists.
>>>>Thus, scientists expect their colleagues to reveal new findings to
>>>>them initially. An attempt to bypass peer review by taking a new
>>>>result directly to the media, and thence to the public, suggests
>>>>that the
>>
>> work
>>
>>>>is unlikely to stand up to close examination by other scientists.
>>>>
>>>>One notorious example is the claim made in 1989 by two chemists from
>>>>the University of Utah, B. Stanley Pons and Martin Fleischmann, that
>>>>they had discovered cold fusion -- a way to produce nuclear fusion
>>>>without expensive equipment. Scientists did not learn of the claim
>>>>until they read reports of a news conference. Moreover, the
>>>>announcement dealt largely with the economic potential of the
>>
>> discovery
>>
>>>>and was devoid of the sort of details that might have enabled other
>>>>scientists to judge the strength of the claim or to repeat the
>>>>experiment. (Ian Wilmut's announcement that he had successfully
>>>>cloned a sheep was just as public as Pons and Fleischmann's claim,
>>>>but in the case of cloning, abundant scientific details allowed
>>>>scientists to judge the work's validity.)
>>>>
>>>>Some scientific claims avoid even the scrutiny of reporters by
>>>>appearing in paid commercial advertisements. A health-food company
>>>>marketed a dietary supplement called Vitamin O in full-page
>>>>newspaper ads. Vitamin O turned out to be ordinary saltwater.
>>>>
>>>>2. The discoverer says that a powerful establishment is trying to
>>>>suppress his or her work. The idea is that the establishment will
>>>>presumably stop at nothing to suppress discoveries that might shift
>>

>> the
>>
>>>>balance of wealth and power in society. Often, the discoverer
>>
>> describes
>>
>>>>mainstream science as part of a larger conspiracy that includes
>>>>industry and government. Claims that the oil companies are
>>>>frustrating the invention of an automobile that runs on water, for
>>>>instance, are a sure sign that the idea of such a car is baloney. In
>>>>the case of cold fusion, Pons and Fleischmann blamed their cold
>>>>reception on physicists who were protecting their own research in
>>>>hot fusion.
>>>>
>>>>3. The scientific effect involved is always at the very limit of
>>>>detection. Alas, there is never a clear photograph of a flying
>>>>saucer, or the Loch Ness monster. All scientific measurements must
>>>>contend
>>
>> with
>>
>>>>some level of background noise or statistical fluctuation. But if
>>>>the signal-to-noise ratio cannot be improved, even in principle, the
>>
>> effect
>>
>>>>is probably not real and the work is not science.
>>>>
>>>>Thousands of published papers in para-psychology, for example, claim
>>
>> to
>>
>>>>report verified instances of telepathy, psychokinesis, or
>>
>> precognition.
>>
>>>>But those effects show up only in tortured analyses of statistics.
>>>>The researchers can find no way to boost the signal, which suggests
>>>>that
>>
>> it
>>
>>>>isn't really there.
>>>>
>>>>4. Evidence for a discovery is anecdotal. If modern science has
>>
>> learned
>>
>>>>anything in the past century, it is to distrust anecdotal evidence.
>>>>Because anecdotes have a very strong emotional impact, they serve to

>>>>keep superstitious beliefs alive in an age of science. The most
>>>>important discovery of modern medicine is not vaccines or
>>>>antibiotics, it is the randomized double-blind test, by means of
>>>>which we know what works and what doesn't. Contrary to the saying,
>>>>"data" is not the plural of "anecdote."
>>>>
>>>>5. The discoverer says a belief is credible because it has endured
>>>>for centuries. There is a persistent myth that hundreds or even
>>>>thousands of years ago, long before anyone knew that blood
>>>>circulates throughout the body, or that germs cause disease, our
>>>>ancestors possessed miraculous remedies that modern science cannot
>>>>understand. Much of
>>
>> what
>>
>>>>is termed "alternative medicine" is part of that myth.
>>>>
>>>>Ancient folk wisdom, rediscovered or repackaged, is unlikely to
>>>>match the output of modern scientific laboratories.
>>>>
>>>>6. The discoverer has worked in isolation. The image of a lone
>>>>genius who struggles in secrecy in an attic laboratory and ends up
>>>>making a revolutionary breakthrough is a staple of Hollywood's
>>>>science-fiction films, but it is hard to find examples in real life.
>>>>Scientific breakthroughs nowadays are almost always syntheses of the
>>>>work of many scientists.
>>>>
>>>>7. The discoverer must propose new laws of nature to explain an
>>>>observation. A new law of nature, invoked to explain some
>>
>> extraordinary
>>
>>>>result, must not conflict with what is already known. If we must
>>
>> change
>>
>>>>existing laws of nature or propose new laws to account for an
>>>>observation, it is almost certainly wrong.
>>>>
>>>>I began this list of warning signs to help federal judges detect
>>>>scientific nonsense. But as I finished the list, I realized that in
>>
>> our
>>
>>>>increasingly technological society, spotting voodoo science is a
>>>>skill that every citizen should develop.
>>>>
>>>>Robert L. Park is a professor of physics at the University of
>>>>Maryland at College Park and the director of public information for
>>>>the

>>
>> American
>>
>>>>Physical Society. He is the author of Voodoo Science: The Road From
>>>>Foolishness to Fraud (Oxford University Press, 2002).
>>>>
>>>>http://chronicle.com
>>>>Section: The Chronicle Review
>>>>Volume 49, Issue 21, Page B20
>>>
>>>Some good points there Irv!
>>>7. Is very interesting though. I'm an amateur astronomer as well as a
>>
>> ham
>>
>>>and I'm frequently amused, or saddened, by some of the extreme
>>>efforts to "save" the "Big Bang" theory.
>>>One recent one had negative mass matter, a cosmic repulsion force
>>>which has never been observed and cold dark invisible matter all
>>>brought in. Of course there are WIMPS MACHOS and a period of
>>>inflation at many
>>
>> times
>>
>>>the speed of light involved too.
>>>To me that makes the "Big Bang" a very suspect theory!!
>>
>>
>> It IS very suspect. The trouble is, nobody has an iota of a clue
>> what to replace it with. And this will probably remain the case
>> until we have some solid quantum theory of gravity to work with.
>>
>>
>>>And that IS the position of many of the "establishment" cosmologists!
>>>These problems are not just on the science "fringe" unfortunately.
>>>A couple of brave souls recently proposed the simple expedient of
>>>very slighty modifing the inverse square law of gravity at vast
>>>distances. It seems to explain many problems of current theories, but
>>>it was "jumped on" from a great height by scientists who don't ever
>>>seem to have heard of Occam's razor.
>>
>>
>> Yes...very often the replacement "laws of nature" turn out to
>> approximate very closely to the ones we had before. After all, a
>> "law of nature" is really just a VERY persistent (and often
>> mathematical) observation about nature.
>>
>>
>>>Regards Cliff wright.
>>>

>>>BTW I have a bet with several of my old colleagues at Auckland
>>>university that LIGO won't detect any "gravitational waves"
>>>So far it has been about 3 years and I haven't had to pay out.
>>
>>
>> But we ARE dealing with a phenomenon that is at the limit of
>> detection here.
>>
>>
> Hi Dave.
> A very interesting reply. Just recently I tried to get answers
> about
> the actual mechanism for detecting "Gravity Waves".
> I know I'm getting on a bit and retired, but I still get very
> supicious of claims based solely on advanced Mathematics which the
> "claimers" cannot explain in some terms which would be understandable
> to a person with a knowledge of Physics to say, Batchelor degree
> level. Just how self checking is some of this work?
> Some of the answers re LIGO seemed to imply that all 3 spatial
> dimensions are affected by the passage of a "Gravity Wave".
> How does one detect that when your whole measuring apparatus is
> affected at the same time.
> The other thing that has made me a little dubious has been that the
> claimed sensitivity of LIGO appears to have been downgraded by 2
> orders of magnitude after it was completed in its first form.
> Some while ago their site was actually downplaying whether they would
> ever detect a signal at all. Hopefully time will tell. In fact it
> would be nice to be proved wrong.
>
> I think we are in very good agreement re the "Big Bang" theory.
> The book of Genisis is the main source of inspiration for it I reckon!
> Problem is so many astronomers who have sought for evidence for an
> alternative have had a very hard time from the establishment.
> I have actually seen this myself at University level, with students
> getting marked down for just questioning the theory.
>
> Of course I'm old enough to remember when "plate tectonics" was a
> heresy, and we all know what happened there.

The thing is, we know the universe is expanding. That implies very
strongly that it has a definite, very hot, very dense beginning. The
rest of it is the technical details.

--
Dave Oldridge+
ICQ 1800667

445. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 04:32:20 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns979CDB1A9DB39doldridgsprintca@64.59.135.159>
Source record: 61437

Thomas anonymous <Thomas.anonymous.25toz8@news.radiobanter.com> wrote in
news:Thomas.anonymous.25toz8@news.radiobanter.com:

>
> How critical is it to mount twinlead feedline (300 ohm TV ribbon type)
> so that it doesn't come into contact with anything? Obviously, with

You don't want unbalanced coupling between one side of the feedline and
something else. That would unbalance the feedline. You MAY not want the
impedance bump that comes with equal coupling on both sides, though that
might be tolerable if you're tuning the line anyway. And you don't want
lossy coupling of any kind.

--
Dave Oldridge+
ICQ 1800667
VA7CZ

446. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 05:11:55 UTC
From: Larry Benko <xxw0qe@comcast.net>
Message-ID: <OvadnVQhNs68PqnZ4p2dnA@comcast.com>
Source record: 61438

Roy Lewallen wrote:

> Al is usually the value for low flux density. That is, it's the value
> you'll have when the flux level is low. Permeability will drop from
> there at high flux levels.
>

Not to nit-pick but the permeability of nearly all powdered iron formulations actually rises with increasing flux levels (AC) and then falls off. For #26 material (u=75), the effect is very much exagerated with the permeability increasing nearly 300% at ~5000 Gauss and then falling very quickly. However the permeability does drop for any value of DC bias current and larger DC bias currents produce greater reductions in permeability.

73, Larry Benko, W0QE

447. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 05:34:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ne7932t86am5uun335p39mj8843egtlpat@4ax.com>
Source record: 61439

On 5 Apr 2006 21:05:43 -0700, "K7ITM" <k7itm@msn.com> wrote:

>Do you disagree that resonance of a monopole over a ground plane is for
>a length somewhat shorter than c/(4*f(resonance))? If you do, then
>let's have a discussion about THAT.

Hi Tom,

Do I disagree? Now, there's a classic line that too frequently
litters these threads.

I've offered many antennas that are spectacularly (considering their
commercial application) shorter than quarterwave (the same size, and
longer too). These shorter antennas easily embody your comment above.
Now what is the THAT that seems to bear discussing that I haven't
already covered twice? Three times is not a charm.

73's
Richard Clark, KB7QHC

448. Re: The Seven Warning Signs of Bogus Science

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 05:36:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g5a93216tms3vhreisdo6860og4245k0vs@4ax.com>
Source record: 61440

On Thu, 06 Apr 2006 04:27:39 GMT, Dave Oldridge
<doldridg@leavethisoutshaw.ca> wrote:

>The thing is, we know the universe is expanding. That implies very
>strongly that it has a definite, very hot, very dense beginning. The
>rest of it is the technical details.

Hi Dave,

This is a singularity, not necessarily a beginning.

73's
Richard Clark, KB7QHC

449. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 05:37:28 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <1239aaafdv8fa49@corp.supernews.com>
Source record: 61441

Dave Oldridge wrote:
> Thomas anonymous <Thomas.anonymous.25toz8@news.radiobanter.com> wrote in
> news:Thomas.anonymous.25toz8@news.radiobanter.com:
>
>
>>How critical is it to mount twinlead feedline (300 ohm TV ribbon type)
>>so that it doesn't come into contact with anything? Obviously, with
>
>
> You don't want unbalanced coupling between one side of the feedline and
> something else. That would unbalance the feedline. You MAY not want the
> impedance bump that comes with equal coupling on both sides, though that
> might be tolerable if you're tuning the line anyway. And you don't want
> lossy coupling of any kind.
>
In general there is a magnetic/electric field between the conductors in
twinlead feed line. If this field is in contact with a metal or other
conductive surface it will distort the impedance of the wire. Twinlead
with the round surfaces between the conductors will keep the field out
of the way of any surface the twinlead is resting on. This helps to
maintain the constant 300 ohm impedance of the twinlead. That is why tv
leadin uses standoffs to restrain the wire from the antenna to the
receiver/transmitter.
There is nothing wrong with using twinlead. It's cheap, light weight and
easy to install.

Dave WD9BDZ

450. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 06:35:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1239dl1litgdfc5@corp.supernews.com>
Source record: 61442

Larry Benko wrote:
> Roy Lewallen wrote:
>
>> Al is usually the value for low flux density. That is, it's the value
>> you'll have when the flux level is low. Permeability will drop from
>> there at high flux levels.
>>
>
> Not to nit-pick but the permeability of nearly all powdered iron
> formulations actually rises with increasing flux levels (AC) and then
> falls off. For #26 material (u=75), the effect is very much exagerated
> with the permeability increasing nearly 300% at ~5000 Gauss and then
> falling very quickly. However the permeability does drop for any value
> of DC bias current and larger DC bias currents produce greater
> reductions in permeability.
>
> 73, Larry Benko, W0QE

Thanks for the correction. The permeability monotonically drops with increasing coercive force (H), but rises as you say with increasing flux density (B) over some range of flux densities. This is true for ferrites also.

Roy Lewallen, W7EL

451. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 06:50:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1239ehalkdecf1c@corp.supernews.com>
Source record: 61443
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Michael A. Terrell wrote:
>
> I saw both types on car radio antennas, and some was clearly marked
> RG-62. Both types meet the original RG62 specification, they just use
> two different methods to minimize dielectric losses, like fused disk
> hardline used in CATV and other applications that require low loss
> cabling. Also, why would one of the Delco engineers who designed their
> car radios lie about the coax they used? He was explaining the then
> brand new AM/FM/8-track combo when I asked a number of questions about
> the RF front end. As usual, you will continue to believe whatever you
> want to.

I happened to find a piece of the automotive cable -- complete with connector -- in my junk box, which I'm pretty sure was cut from a replacement antenna probably purchased in the '70s. This particular cable lacks the PE "string", but the ~#31 center conductor is crimped in a sort of zig-zag shape to keep it in place in the hollow tube. The aviation cable apparently has the center conductor bent into a (presumably loose) helix for the same purpose. I've never seen RG-62 cable without the PE "string", but don't have any trouble believing that someone might manufacture it without the "string". I also don't have trouble believing that some auto manufacturers might use RG-62. Although I saw a lot of auto installations in the '60s, when I moonlighted repairing such things, I never saw RG-62. But I certainly didn't see anywhere near every possibility, and I could have missed seeing a marking.

Roy Lewallen, W7EL

452. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 06:54:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1239epjqpmci573@corp.supernews.com>
Source record: 61444

David G. Nagel wrote:
> . . .
> There is nothing wrong with using twinlead. It's cheap, light weight and
> easy to install.

When wet, it can become much lossier than RG-58. See
http://www.eznec.com/Amateur/Articles/Portable_Feed_Lines.pdf.

Roy Lewallen, W7EL

453. Re: building a yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 07:04:08 UTC
From: stargatesg1 <nospam@here.net>
Message-ID: <I33Zf.15385$Py4.8601@trnddc06>
Source record: 61445

You can get aluminum 6061 3/16" rod at most metal suppliers or scrap metal salvage yards. Check the yellow pages. If they don't have it in stock they will usually order it for you. I was quoted a price of about $10 US for 1" X 12' square tubing, and about $3-4 for the 3/16" X 12' rod stock.

Hope this helps,
--
RoD

"Steven Polczynski" <spolczynski82@gsbcglobal.net> wrote in message news:4m_Yf.62380$H71.12519@newssvr13.news.prodigy.com...
> You can get aluminum tubing from an aircraft supplier. it comes in 12'
> lengths.
>
> it would be a pretty expensive antenna but would last a long time.
>
>
> "Leadfoot" <Ledfoot02@hotmail.com> wrote in message
> news:hu3Uf.7382$lb.659961@news1.epix.net...
> >I going to build a 11 element yagi but the problem I'm having is I can't
> >find the aluminum rods, I was wondering if I use copper if I will still
get
> >the same Db gain.
> >
> > I was thinking of another metal was to use brake line from a car that I
> > can get in the auto parts store.
> >
> > Thanks
> > Ledfoot
> >
> >
>
>

454. Re: Velocity Factors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 10:05:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <NKSdnYK-reLYdanZnZ2dnUVZ8qqdnZ2d@bt.com>
Source record: 61446

Thanks, Wes, for the "Ladder line" pdf. I really enjoyed reading it.
Both factual and entertaining.

The impedances Zo of the nominal 450-ohm lines were all on the low
side. I wonder if this was due to the manufacturer's ignorance?

Did he use the usual ratio of wire-spacing to wire-diameter to deduce
Zo and forgot to multiply Zo by the VF to reduce Zo to the value he
actually achieved?

Then, it he ever measured Zo, he thought his measurements must be in
error and just carried on making the stuff.

Thanks for the data.

Reg.
==========

"Wes Stewart" <n7ws*@*yahoo.com> wrote in message
news:irc832pdcghlikejq1acc6kta48fhtoukj@4ax.com...
> On Wed, 5 Apr 2006 21:09:10 +0100, "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >I should like to know the velocity factors which occur on various
> >twin-balanced transmission lines. We have -
> >
> >Open wire lines with infrequently spaced, flimsey spacers.
> >
> >450-ohm ladder lines of various sorts.
>
> http://k6mhe.com/n7ws/Ladder_Line.pdf
>

455. Re: Velocity Factors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 10:33:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <OridnSOeNLdQc6nZRVnyqQ@bt.com>
Source record: 61447

Has anyone ever measured the velocity factor of the twin feeder in
which the support for the wires is in the form of a plastic tube?

I would guess the VF is quite high. There is no insulation directly
between the wires.

Reg.

456. Re: Unknown coax id help?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 11:20:08 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <N9idnfYaH5r2ZKnZ4p2dnA@bright.net>
Source record: 61448

If you muliply that loss out, it's about 17 dB loss per 100 feet. That would be considered pretty lossy...but...since you're only using 5 feet, it's probably not going to be a deal breaker :) Andrew 1/2" hardline is about 3.6 dB per 100 feet (granted it is NOT RG-58 sized!)...

Scott
N0EDV

Ken Bessler wrote:

> "Ed" <Huckleberry_REMOVE_@newsguy.com> wrote in message
> news:Xns979CB0084585Cspectrumhogstarbandn@198.186.192.196...
>
>>>The label on this coax reads:
>>>
>>> "CFD200-NL LOW LOSS 50 OHM COAXIAL CABLE COMMATE/PEWC 3D"
>>>
>>>All I could find was a spec saying it has a VF of .83 and I measured
>>>the OD (0.195"). The cable is very stiff for it's size - like 9913
>>>almost.
>>>
>>>Anyone care to guess? I'd love to take it apart (it's a RP-TNC - N
>>>Male 5' pigtail) but it's such a nice job I don't want to. Maybe it's
>>>a copy of LMR-200?
>>
>>
>>
>> I guess my Google skills are better than yours! :^)
>>
>> Try: http://www.commate.com.tw/
>>
>> Click on "Low Loss Cables,
>>
>> then click on "CFD200"
>>
>> Looks pretty Lossy, to me, if you are going to use it at 2.6GHz.
>>
>>
>> Ed K7AAT
>
>
> Actually, I did google and yahoo and I saw the reference to the tw
> website but I passed, fearing language problems. Guess I should
> have given it a look see.
>

> Lossy? My math says 0.845 db loss for my 5' pigtail - from what
> I've read recently that's not to bad for a rg-58 size pigtail, esp. on
> 2.4 gigs...
>
> Maybe I'm wrong? Feel free to teach me. :-)
>
> Thanks for the link.
>
> Ken KG0WX
>
>

457. pulse radio help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 11:25:51 UTC
From: ml <m@di.net>
Message-ID: <m-3AA548.07254506042006@news.verizon.net>
Source record: 61449

hi

Hoping someone might have read the same article (s) i did and can help me re find them

I read somewhre mighta been nuts n volts pop electronics or pop sci ...

was an article about a 1 guy, who invented a new type of radio transmission, called pulse width radio, NOT not to be confused w/the long avail current pwm stuff or pw stuff of today

it alleged the technology could lead to cool things like hand held radar units , voice radios small sized that would work over large distances and use low power yah sounds great...

next i heard the military was trying to steel his patents and then almost all reference to the work was gone

it's gotta to have been at least 2yrs? no i can't find a trace of it anyplace

anyone remember this 'news' and have any links to anything on the technology i could reference ??

thanks any help appreciated, realize it'a long shot but i hate not finding stuff

458. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 11:30:50 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <4434fb26_5@newsfeed.slurp.net>
Source record: 61450

"Richard Clark" wrote:
>>On Tue, 4 Apr 2006 12:11:20 -0500, "Richard Fry" wrote:
>>
>>>The effective electrical length of a MW monople radiator determines its
>>>resonant frequencies, and that must include the velocity of propagation
>>>along the structure -- which is a function of the height AND width of the
>>>radiator (mainly), and the operating frequency.
>
> Now, returning to the diameter that has been proven to be necessary to
> resonate this instance which you dismiss as "ridiculous examples," my
> comment about seeing very few towers that exhibit this magnitude of
> diameter (the size of my living room) still stands as unimpeached.
>
> Going further into your cavalier dismissal of "ridiculous examples" we
> find that there are a forest of very short antennas in service. My
> link provides so many in one frequency assignment that the force of
> numbers cannot be denied so simply, and certainly when lacking
> technical rebuttal. Those offered such as WXNH 56.30ï¿½ tall 540 kHz
> when run through the same exercise above (YOUR reference, YOUR
> claims) reveals a necessary A/D of LESS THAN 5. The simple math
> resounds with the implications of necessary diameter to resonate this...

You have seized and fixated on a concept I did not generate, ie, that AM broadcast antennas all need to be SELF-resonant, and that their L-D ratio is the way to achieve that. Anyone referencing my statement quoted above in this post, and thinking its does so has problems with reading comprehension.

Why don't you just accept this reality, and move on?

RF

459. Re: Velocity Factors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 11:34:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1239v5lgcfjr823@corp.supernews.com>
Source record: 61451

Some of the oval 300 ohm line, at least, was filled with PE foam. I
think this was intended to keep the water out.

Roy Lewallen, W7EL

Reg Edwards wrote:
> Has anyone ever measured the velocity factor of the twin feeder in
> which the support for the wires is in the form of a plastic tube?
>
> I would guess the VF is quite high. There is no insulation directly
> between the wires.
> ----
> Reg.
>
>

460. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 12:02:53 UTC
From: amdx <amdx@worldnet.att.net>
Message-ID: <970b1$4435036d$45011502$7643@KNOLOGY.NET>
Source record: 61452

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:1239dl1litgdfc5@corp.supernews.com...
> Larry Benko wrote:
> > Roy Lewallen wrote:
> >
> >> Al is usually the value for low flux density. That is, it's the value
> >> you'll have when the flux level is low. Permeability will drop from
> >> there at high flux levels.
> >>
> >
> > Not to nit-pick but the permeability of nearly all powdered iron
> > formulations actually rises with increasing flux levels (AC) and then
> > falls off. For #26 material (u=75), the effect is very much exagerated
> > with the permeability increasing nearly 300% at ~5000 Gauss and then
> > falling very quickly. However the permeability does drop for any value
> > of DC bias current and larger DC bias currents produce greater
> > reductions in permeability.
> >
> > 73, Larry Benko, W0QE
>
> Thanks for the correction. The permeability monotonically drops with
> increasing coercive force (H), but rises as you say with increasing flux
> density (B) over some range of flux densities. This is true for ferrites
> also.
>
> Roy Lewallen, W7EL

Please see the following URL Page 6,
http://www.mag-inc.com/pdf/cg-01.pdf
note the graph for the toroid, the inductance decreases by 40 percent
going from 2000 gausse to 10 gausse.

Question 1.
I don't know where on that graph the published permeability would set the
inductance. (to clarify--How many gausse is used to measure permeability
and set AL?)
Question 2.
Can anyone take a stab at how many gausse in a typical FT140-43 toroid
with 8 turns on the secondary, and 34 or 35 turns on the primary used on a
flag antenna with a low level signal.

Maybe if we have two points on that graph we can have a real number to
see how much inductance changes from published AL at low gausse.
Mike

PS. interesting how pot cores have very little inductance change with changing gausse.

461. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 12:33:46 UTC
From: w8ji@akorn.net
Message-ID: <1144326826.706548.100400@g10g2000cwb.googlegroups.com>
Source record: 61453

amdx wrote:

> If I wind a transformer using the specified A sub L and then use that
> transformer in a receive antenna where the voltages are very small, wouldn't
> I be low on the curve and cause the transformer to function poorly
> especially at the lowest frequency of the design?
>
> Mike
>
> PS Thinking about a Flag antenna, which has a small output signal.

Mike,

I think you are focusing on non-issues and not consider things that are really important.

First, I would not use a 43 core on a low frequency receive antenna. This is especially true with an ungrounded antenna that has exceptionally low signal output, like a Flag.

There are very few antennas in the world that are perfectly UNbalanced or perfectly balanced. Even what we consider an unbalanced antenna can cause feed system problems. When the antenna has very low signal output yet occupies a large spatial area, you are especially looking at problems.

The flag has low common mode impedance, and fairly high differential mode impedance. It is neither balaunced nor unbalanced, it is in that soupy world of something that requires equal and opposite currents at the feed without perfect voltage balance. It is not a balanced antenna, and not an unbalanced antenna.

When that is combined with the very low signal output, you have to pay particular attention to the transformer design.

You really can't use a transmission line transformer because it will not have enough isolation. You need a primary-secondary transformer with isolated and slightly seperated windings. You really don't want a material that requires 30 or 40 turns, because extra wire will increase stray capacitance from primary to secondary.

You almost certainly want to move into a binocular core with fairly high permeability at the lowest frequency, like a 73 material. Unless you have a few volts of RF from a closeby station, flux density is not an issue.

You want to keep primary/secondary capacitance down near a dozen pF or less if possible, and have NO direct path for common mode currents.

http://www.w8ji.com/k9ay_flag_pennant_ewe.htm

73 Tom

462. Re: pulse radio help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 12:34:08 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <44350AC8.34DBB489@shaw.ca>
Source record: 61454

ml wrote:
>
> hi
>
> Hoping someone might have read the same article (s) i did and can help
> me re find them
>
> I read somewhre mighta been nuts n volts pop electronics or pop sci
> ...

Was the article published on April 1st?

Irv
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

463. How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 16:06:22 UTC
From: mcalhoun@ksu.edu
Message-ID: <e13e9u$q3u@unix1.cc.ksu.edu>
Source record: 61455
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

I gave a presentation on "How Ham Radio Can Help You in an Emergency"
to 70 Emergency Management types last week, and the windows in the
building which hosted the meeting were NOT open-able (so I "made do"
with an inside VHF antenna and didn't even try to demonstrate HF).

But in emergency/expedient situations, it would be really handy if one
could pass at HF, say, 100 watts of RF energy through a window (I
visualize some foil strips and an inductor or two to "tune out" the
capacitance) to an external antenna.

I've been told that the April, 1989, issue of Ham Radio magazine carried
an article "Easy antenna access for urban apartment dwellers" (for 15
meters) by Bryan Bergeron, NU1N, starting on page 18.

I'd sure like to read that article; can anyone send me a copy?
--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

464. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 16:13:45 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <123afiucu4h3i13@corp.supernews.com>
Source record: 61456

Roy Lewallen wrote:
> David G. Nagel wrote:
> > . . .
>
>> There is nothing wrong with using twinlead. It's cheap, light weight
>> and easy to install.
>
>
> When wet, it can become much lossier than RG-58. See
> http://www.eznec.com/Amateur/Articles/Portable_Feed_Lines.pdf.
>
> Roy Lewallen, W7EL

Roy;

True. Remember I said I don't use the stuff so I forgot that little tidbit. I also try not to use RG-58 for anything other than a mobile antenna and I am trying to get away from that also.

Dave WD9BDZ

465. Re: pulse radio help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 16:16:29 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <123afo2nncgu094@corp.supernews.com>
Source record: 61457

ml wrote:

> hi
>
> Hoping someone might have read the same article (s) i did and can help
> me re find them
>
> I read somewhre mighta been nuts n volts pop electronics or pop sci
> ...
>
> was an article about a 1 guy, who invented a new type of radio
> transmission, called pulse width radio, NOT not to be confused w/the
> long avail current pwm stuff or pw stuff of today
>
> it alleged the technology could lead to cool things like hand held
> radar units , voice radios small sized that would work over large
> distances and use low power yah sounds great...
>
> next i heard the military was trying to steel his patents and then
> almost all reference to the work was gone
>
> it's gotta to have been at least 2yrs? no i can't find a trace of it
> anyplace
>
>
> anyone remember this 'news' and have any links to anything on the
> technology i could reference ??
>
>
> thanks any help appreciated, realize it'a long shot but i hate not
> finding stuff

See the item in this newsgroup about "The Seven Warning Signs of Bogus Science"...

Dave N

466. Brandnew radio and transmitters massageboard

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 16:31:30 UTC
From: sw monitor <info@alfalima.net>
Message-ID: <4435441b$0$44281$dbd4b001@news.wanadoo.nl>
Source record: 61458

Brandnew radio and transmitters massageboard

After making the sw pirates group and the radio and transmitters group and not to forget the sw pirates forum a new forum is launched. a huge forum related to building radio, transmitters, ham and ameteur radio and so on, tip and moderators are very welcome, thes board needs promotion so webmasters, do your thing. any halp or placed URL's are welcome
http://forum.alfalima.net/

geheel nieuw, een radio , zender en amateur radio forum, ook voor hulp bij je amateur opleiding,
tips, idee's en moderators zeer welkom
http://forum.alfalima.net/

Greetz Alfred Zoer

467. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 17:31:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rfga325v0b33cr4d893251d5uh1cjbgv88@4ax.com>
Source record: 61459

On Thu, 6 Apr 2006 06:30:50 -0500, "Richard Fry" <rfry@adams.net>
wrote:

>Why don't you just accept this reality, and move on?

Reality? Now there's a cornpone clichï¿½.

It should take little imagination (dull intelligence rather), once
reading the topic line these postings fall under, to accept the thread
of continuity has been about
1. Loads in
2. very short antennas whose
3. height has been expressed in degrees when
4. resonant.

There is absolutely no difference in outcome, be it an AM antenna, or
a Hamstick in the back yard.

73's
Richard Clark, KB7QHC

468. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 17:48:17 UTC
From: Thomas anonymous <Thomas.anonymous.25v2z9@news.radiobanter.com>
Message-ID: <Thomas.anonymous.25v2z9@news.radiobanter.com>
Source record: 61472

Well, that's what you call a definitive answer, hi. I live on the
Canadian Wet Coast, near Vancouver --- you could say moisture is
sometimes a factor around here ...
:)

Thx and 73 from Canada

--
Thomas anonymous

469. Fiber Glass (shell) vs Metal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 17:50:51 UTC
From: Myles Byrne <mail.mpb@gmail.com>
Message-ID: <1144345851.115512.302060@z34g2000cwc.googlegroups.com>
Source record: 61460

Been looking for a used 2 mtr ant. - was reading some comments about
Fiber Glass and Lightning - Someone said "Fiber Glass to lightning is
like a trailer park to a tornado" - "It's all metal on the inside" -
So, is there something to the comment ?

470. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 17:59:36 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <123alpjhjjbva3@corp.supernews.com>
Source record: 61461
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

<mcalhoun@ksu.edu> wrote in message news:e13e9u$q3u@unix1.cc.ksu.edu...
> But in emergency/expedient situations, it would be really handy if one
> could pass at HF, say, 100 watts of RF energy through a window (I
> visualize some foil strips and an inductor or two to "tune out" the
> capacitance) to an external antenna.

In an emergency I'd say... uh... just leave the window open? :-)

Over on eHam.net there's a recent article on building yourself a simple rectangular wooden panel to stick in the frame of an (open) window. You then just drive holes in the panel as needed to run cables, etc. I've even seen people who didn't have, e.g., a drill or jigsaw do the same thing using a thick-ish chunk of stiff foam (insulation material or even presentation poster board) and an X-acto knife.

471. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 18:30:13 UTC
From: Lawrence Statton N1GAK/XE1 <lawrence@hummer.not-here.net>
Message-ID: <87y7yieeve.fsf@hummer.i-did-not-set--mail-host-address--so-shoot-me>
Source record: 61462
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Joel Kolstad" <JKolstad71HatesSpam@yahoo.com> writes:
> <mcalhoun@ksu.edu> wrote in message news:e13e9u$q3u@unix1.cc.ksu.edu...
> > But in emergency/expedient situations, it would be really handy if one
> > could pass at HF, say, 100 watts of RF energy through a window (I
> > visualize some foil strips and an inductor or two to "tune out" the
> > capacitance) to an external antenna.
>
> In an emergency I'd say... uh... just leave the window open? :-)

But be sure to bring a hefty brick along to create the opening in the first
place :)

The OP's dilema was that the window COULD NOT open, and therefore some
way to pass RF through glass would have been Useful.

-- --
Lawrence Statton - lawrenabae@abaluon.abaom s/aba/c/g
Computer software consists of only two components: ones and
zeros, in roughly equal proportions. All that is required is to
sort them into the correct order.

472. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 18:44:48 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <AkdZf.12633$tN3.10126@newssvr27.news.prodigy.net>
Source record: 61463
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

<mcalhoun@ksu.edu> wrote:
> But in emergency/expedient situations, it would be really handy if one
> could pass at HF, say, 100 watts of RF energy through a window (I
> visualize some foil strips and an inductor or two to "tune out" the
> capacitance) to an external antenna.

What I have done is plan ahead by drilling two small holes in the glass
and plugging them with nylon screws when not in use. That works best
on the first floor. :-)
--
73, Cecil, W5DXP

473. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 18:46:02 UTC
From: Brian Murrey <brian@iquest.net>
Message-ID: <KldZf.1353$Es3.389@newsread3.news.atl.earthlink.net>
Source record: 61464
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

You'd have better luck with HF than VHF or UHF making it through any solid object. I have used a homebrew mag loop in a hotel room on several ocassions with some luck..on 20 and 40.

I have a 40m dipole in my attic, and I runn less than 5w HF most of the time and I have WAS on several ocassions, I try to WAS every year.

73

--
==========
Radio Amateurs - Fill your junk box, from my junkbox!
http://www.hamradparts.com
73 de KB9BVN
==========

<mcalhoun@ksu.edu> wrote in message news:e13e9u$q3u@unix1.cc.ksu.edu...
> I gave a presentation on "How Ham Radio Can Help You in an Emergency"
> to 70 Emergency Management types last week, and the windows in the
> building which hosted the meeting were NOT open-able (so I "made do"
> with an inside VHF antenna and didn't even try to demonstrate HF).
>
> But in emergency/expedient situations, it would be really handy if one
> could pass at HF, say, 100 watts of RF energy through a window (I
> visualize some foil strips and an inductor or two to "tune out" the
> capacitance) to an external antenna.
>
> I've been told that the April, 1989, issue of Ham Radio magazine carried
> an article "Easy antenna access for urban apartment dwellers" (for 15
> meters) by Bryan Bergeron, NU1N, starting on page 18.
>
> I'd sure like to read that article; can anyone send me a copy?
> --
> --Myron A. Calhoun.
> Five boxes preserve our freedoms: soap, ballot, witness, jury, and
cartridge
> PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785)
539-4448
> NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle,
Pistol)

474. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 19:05:48 UTC
From: dplatt@radagast.org
Message-ID: <123apkcflafh49@corp.supernews.com>
Source record: 61465
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

In article <87y7yieeve.fsf@hummer.i-did-not-set--mail-host-address--so-shoot-me>,
Lawrence Statton N1GAK/XE1 <lawrence@hummer.not-here.net> wrote:

>But be sure to bring a hefty brick along to create the opening in the first
>place :)
>
>The OP's dilema was that the window COULD NOT open, and therefore some
>way to pass RF through glass would have been Useful.

A lot of modern buildings have glass windows which not only cannot be
opened, but which have a "low-E" (low thermal emission) coating on the
glass. This is (I believe) a very thin layer of vapor-deposited
metal.

Its RF attenuation is considerable. Some years ago, we had our house
windows (1960s-era glass) replaced with new ones using a low-E-coated
glass. A previously-workable signal path for 802.11 signals, which
got to the back of the house from an access point in the garage by
going through the garage door and a couple of exterior windows,
suddently became quite unusable - I had to install an additional
access point to cover that part of the house.

The more obviously shaded or reflective the glass, the more of a
problem for RF transmission or coupling this stuff is likely to present.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

475. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 19:58:37 UTC
From: amdx <amdx@worldnet.att.net>
Message-ID: <ce2b0$443572ec$45011502$2378@KNOLOGY.NET>
Source record: 61466

<w8ji@akorn.net> wrote in message
news:1144326826.706548.100400@g10g2000cwb.googlegroups.com...
>
> amdx wrote:
>
> > If I wind a transformer using the specified A sub L and then use that
> > transformer in a receive antenna where the voltages are very small,
wouldn't
> > I be low on the curve and cause the transformer to function poorly
> > especially at the lowest frequency of the design?
> >
> > Mike
> >
> > PS Thinking about a Flag antenna, which has a small output signal.
>
> Mike,
>
>
> I think you are focusing on non-issues and not consider things that are
> really important.
>
> First, I would not use a 43 core on a low frequency receive antenna.
> This is especially true with an ungrounded antenna that has
> exceptionally low signal output, like a Flag.
>
> There are very few antennas in the world that are perfectly UNbalanced
> or perfectly balanced. Even what we consider an unbalanced antenna can
> cause feed system problems. When the antenna has very low signal
> output yet occupies a large spatial area, you are especially looking at
> problems.
>
> The flag has low common mode impedance, and fairly high differential
> mode impedance. It is neither balaunced nor unbalanced, it is in that
> soupy world of something that requires equal and opposite currents at
> the feed without perfect voltage balance. It is not a balanced antenna,
> and not an unbalanced antenna.
>
> When that is combined with the very low signal output, you have to pay
> particular attention to the transformer design.
>
> You really can't use a transmission line transformer because it will
> not have enough isolation. You need a primary-secondary transformer
> with isolated and slightly seperated windings. You really don't want a
> material that requires 30 or 40 turns, because extra wire will increase

> stray capacitance from primary to secondary.
>
> You almost certainly want to move into a binocular core with fairly
> high permeability at the lowest frequency, like a 73 material. Unless
> you have a few volts of RF from a closeby station, flux density is not
> an issue.
>
> You want to keep primary/secondary capacitance down near a dozen pF or
> less if possible, and have NO direct path for common mode currents.
>
> http://www.w8ji.com/k9ay_flag_pennant_ewe.htm
>
> 73 Tom
>

Hi Tom,
Thanks for your input, When I wrote the above I couldn't remember what people were using on there flags so I went to one site and just copied what that site said, maybe it was a misprint and should have said 73.
I used a 3F3 4229 pot core with 3 turns and 13 turns
on my flag, I cut a styrofoam clamshell to go between the sec and pri to limit capacitance. I also put a grounded electrostatic shield between windings.
I was happy with my nulls, (whatever that means;-) but wonder how efficient my transformer was.

My questions still stand,
Question 1
How many gausse is used to measure permeability and set AL?
Question 2.
Can anyone take a stab at how many gausse in a typical FT140-43 toroid with 8 turns on the secondary, and 34 or 35 turns on the primary used on a flag antenna with a low level signal.
On the second question the material can be modified to reflect the material and turns as needed.
Thanks
Mike

476. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 20:07:17 UTC
From: mcalhoun@ksu.edu
Message-ID: <e13sdl$f1m@unix1.cc.ksu.edu>
Source record: 61467
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

>> But in emergency/expedient situations, it would be really handy if one
>> could pass at HF, say, 100 watts of RF energy through a window ....

>Over on eHam.net there's a recent article on building yourself a simple
>rectangular wooden panel to stick in the frame of an (open) window. You then
>just drive holes in the panel as needed to run cables, etc....

I can just see me now:
* Drive to the High-n-Mighty Hotel where I'm to provide communications
for the Red Cross (or Salvation Army) shelter
* Ask the desk clerk for someone to help me carry my sledgehammer and
other stuff in my grab-n-go kit to the shelter
* Walk into shelter where x-hundred shelterees are fast asleep
* Take sledgehammer and bash a hole through a window
* ....

Nope, that's just not gonna work!

--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

477. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 20:13:53 UTC
From: mcalhoun@ksu.edu
Message-ID: <e13sq1$fev@unix1.cc.ksu.edu>
Source record: 61468
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

>You'd have better luck with HF than VHF or UHF making it through any solid
>object. I have used a homebrew mag loop in a hotel room on several
>ocassions with some luck..on 20 and 40.

Even in an emergency situation, I just don't think it would be a good idea to string some kind of an antenna above the heads of shelterees and then start soaking them with RF, especially depending on the HF frequency in use. In fact, I suspect the FCC's RF-exposure regulations would frown on one doing so!

--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

478. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 20:33:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123auob9ii13c8c@corp.supernews.com>
Source record: 61469

amdx wrote:
> . . .
> My questions still stand,
> Question 1
> How many gausse is used to measure permeability and set AL?

Essentially zero.

> Question 2.
> Can anyone take a stab at how many gausse in a typical FT140-43 toroid
> with 8 turns on the secondary, and 34 or 35 turns on the primary used on a
> flag antenna with a low level signal.

I won't bother to calculate it because the change in permeability would
be so small you wouldn't be able to measure it. This is a non-problem;
you're wasting your time worrying about it.

> On the second question the material can be modified to reflect the material
> and turns as needed.

If your circuit is sensitive to a change in a few parts per million of
permeability, it has serious problems. The permeability will change
several orders of magnitude more than that with modest changes in
temperature.

Roy Lewallen, W7EL

479. Re: HDTV Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 20:34:47 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-C2E6C1.15344706042006@newsclstr02.news.prodigy.com>
Source record: 61470

In article <030420062013148840%artie.m@gNOSPAMmail.com>,
artie <artie.m@gNOSPAMmail.com> wrote:

> In article
> <REMOVEarkay-20B980.20430403042006@newsclstr02.news.prodigy.com>, aRKay
> <REMOVEarkay@qsl.net> wrote:
>
> > What is unique about the new HDTV antennas? We just picked up a new
> > HDTV with a tuner and was advised to pickup a simple HDTV antenna to
> > pick up the local digital broadcast. Any magic to these other the high
> > gain claims on the boxes?
> >
> > Dick AA5VU
>
> Last I looked, broadcast HDTV occupies the old UHF tv channels, so...
>
> Rat Shack Model: U-75R, Catalog #: 15-2160 $25
>
> it's a UHF antenna, nothing more, and that's all you need. I've put in
> a few of these.

I am 3 to 4 miles from the transmission towers and the antenna you
mentioned may be too directional. I need an omnidirectional UHF only.

480. Re: Question about auto antenna cable and connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 20:56:34 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <4435804C.B3342CE2@earthlink.net>
Source record: 61471
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Roy Lewallen wrote:
>
> Michael A. Terrell wrote:
> >
> > I saw both types on car radio antennas, and some was clearly marked
> > RG-62. Both types meet the original RG62 specification, they just use
> > two different methods to minimize dielectric losses, like fused disk
> > hardline used in CATV and other applications that require low loss
> > cabling. Also, why would one of the Delco engineers who designed their
> > car radios lie about the coax they used? He was explaining the then
> > brand new AM/FM/8-track combo when I asked a number of questions about
> > the RF front end. As usual, you will continue to believe whatever you
> > want to.
>
> I happened to find a piece of the automotive cable -- complete with
> connector -- in my junk box, which I'm pretty sure was cut from a
> replacement antenna probably purchased in the '70s. This particular
> cable lacks the PE "string", but the ~#31 center conductor is crimped in
> a sort of zig-zag shape to keep it in place in the hollow tube. The
> aviation cable apparently has the center conductor bent into a
> (presumably loose) helix for the same purpose. I've never seen RG-62
> cable without the PE "string", but don't have any trouble believing that
> someone might manufacture it without the "string". I also don't have
> trouble believing that some auto manufacturers might use RG-62. Although
> I saw a lot of auto installations in the '60s, when I moonlighted
> repairing such things, I never saw RG-62. But I certainly didn't see
> anywhere near every possibility, and I could have missed seeing a marking.
>
> Roy Lewallen, W7EL

Some of the third party replacement antennas were made with military
surplus RG62, and had hand soldered motorola plugs instead of the OEM
crimped plugs. I cut up a lot of old antenna cables and stripped the
copper braid to use as solder wick by dipping it into liquid rosin. Some
had the plastic spacer for the center conductor, but most didn't. Some
weeks we replaced a half dozen car radio antennas, so I always had
plenty of copper braid at hand. years later I worked for a CATV company
repairing converters. The braid from the control cables was a little
under 1/8" when it was pulled tight and flattened by pulling it around
the blade of a screwdriver.

--
Service to my country? Been there, Done that, and I've got my DD214 to
prove it.

Member of DAV #85.

Michael A. Terrell
Central Florida

481. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 21:49:11 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <123b38gspg7kg65@corp.supernews.com>
Source record: 61473
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Lawrence Statton N1GAK/XE1" <lawrence@hummer.not-here.net> wrote in message
news:87y7yieeve.fsf@hummer.i-did-not-set--mail-host-address--so-shoot-me...
> The OP's dilema was that the window COULD NOT open, and therefore some
> way to pass RF through glass would have been Useful.

Oops, sorry I missed that!

482. VSWR AND AUTOMATIC TUNING

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 21:52:30 UTC
From: Big Nose <massivehooter@hotmail.co.uk>
Message-ID: <1144360350.476305.270240@u72g2000cwu.googlegroups.com>
Source record: 61474

If a transceiver has an in built automatic antenna tuning and matching unit, is there any point in measuring the VSWR as a way of ascertaining its performance?

Obviously this would be measured with a thru line meter which would be placed in the feeder system. However, I have been thinking and it would appear that the tuning and matching unit would become part of the antennas impedance (its late and I hope that makes sense).

The reason I ask is because I am trying to find out how well certain transceivers will perform with antennas which are designed for different systems.

483. DELTA LOOP antenna calculator now work with MMANA

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 22:08:10 UTC
From: oli <oli004@wanadoo.fr>
Message-ID: <4435914e$0$21278$8fcfb975@news.wanadoo.fr>
Source record: 61475

Good morning,

I'am happy to tell you that the delta loop antenna calculator
http://www.antenna-street.com/delta-loop-1en.php

can now generate automatiquely the .maa file from your values.

It is operationnal for each delta loop on 10-11 meters band and from 2 to 6
elements.

This will be online in few hours and hope that MMANA users could give their
opinion.

best regards

oli

484. Re: Vertical Fibre-glass antenna for 10-12-15-20 meter ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 22:23:39 UTC
From: Kenneth Grimm <kgrimm@adelphia.net>
Message-ID: <4u4b3255qj6mprb8l5k80bdif7hnpmb7bn@4ax.com>
Source record: 61526

On Sat, 1 Apr 2006 17:56:18 +0200, "Torbjï¿½rn Morka"
<torb-rom@online.no> wrote:

>Length apx 7 meters, with radials, no tuner needed, to be mounted on a piece
>of steelpipe. Any shops or dealer who sells such ?
>
>Torbjorn.
>la6wla.
>

Perhaps the Force 12 Sigma 5, 5-band vertical dipole would meet your
needs and include 17 meters too.

Ken
K4XL

485. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 22:42:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2v5b32p03b289tnurv2qh3gk0qr612g5o7@4ax.com>
Source record: 61527

On Thu, 6 Apr 2006 14:58:37 -0500, "amdx" <amdx@worldnet.att.net>
wrote:

>Question 1
> How many gausse is used to measure permeability and set AL?

Hi OM,

You will never in your lifetime escape the bare minimum of ï¿½ Gauss
presented by the Earth's magnetic field.

73's
Richard Clark, KB7QHC

486. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 22:57:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <M1hZf.12708$tN3.3304@newssvr27.news.prodigy.net>
Source record: 61528

Ian White GM3SEK wrote:
> Based entirely on what you yourself have written, I have told you that
> you don't understand something.

Unless you can prove you are omniscient, Ian, the problem could
possibly be with your misunderstanding of something, not mine.

% along current in current in
wire #2 TravWave.EZ StndWave.EZ

0.28% 0.9998 at -0.99 deg 0.9996 at 0 deg
9.72% 0.9983 at -9.39 deg 0.9843 at -0.03 deg
19.7% 0.9969 at -18.23 deg 0.9454 at -0.05 deg
30.3% 0.9957 at -27.59 deg 0.8843 at -0.06 deg
39.7% 0.9949 at -35.96 deg 0.8023 at -0.08 deg
49.7% 0.9945 at -44.84 deg 0.7014 at -0.09 deg
60.3% 0.9945 at -54.20 deg 0.5840 at -0.09 deg
69.7% 0.9949 at -62.58 deg 0.4528 at -0.10 deg
79.7% 0.9956 at -71.43 deg 0.3110 at -0.11 deg
89.7% 0.9965 at -80.27 deg 0.1616 at -0.11 deg
99.7% 0.9976 at -89.14 deg 0.0061 at -0.11 deg

My EZNEC data posting proves that EZNEC correctly predicts the
differences in the traveling wave current and the standing wave
current. I'm building a new web page around those results. I have
graphed the EZNEC results and they are available at:

http://www.qsl.net/w5dxp/travstnd.GIF

Please note that the traveling wave magnitude looks like the
standing wave phase and the traveling wave phase looks like the
standing wave magnitude. Anyone who maintains that there is no
difference between a traveling wave current and a standing wave
current should take a long close look.

The corresponding EZNEC files are available at:

http://www.qsl.net/w5dxp/TravWave.EZ
http://www.qsl.net/w5dxp/StndWave.EZ
--
73, Cecil http://www.qsl.net/w5dxp

487. Re: VSWR AND AUTOMATIC TUNING

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-06 23:49:19 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <m6CdnWMUI7dgNajZnZ2dnUVZ_vGdnZ2d@comcast.com>
Source record: 61529

Big Nose wrote:

> If a transceiver has an in built automatic antenna tuning and matching
> unit, is there any point in measuring the VSWR as a way of ascertaining
> its performance?

NOPE! The VSWR in the line = The VSWR in the line = The VSWR in the line = The VSWR in the line. The internal tuner does absolutely nothing [NOTHING] to the VSWR in the line.

The internal tuner will make the radio 'happy' within it's tuning range, but it does NOTHING about the VSWR in the line!

>
> Obviously this would be measured with a thru line meter which would be
> placed in the feeder system. However, I have been thinking and it
> would appear that the tuning and matching unit would become part of the
> antennas impedance (its late and I hope that makes sense).
>
> The reason I ask is because I am trying to find out how well certain
> transceivers will perform with antennas which are designed for
> different systems.
>

488. Re: VSWR AND AUTOMATIC TUNING

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 00:05:02 UTC
From: chuck <nospam@nospam.net>
Message-ID: <O0iZf.3950$i41.776@newsread1.news.atl.earthlink.net>
Source record: 61530

Dave wrote:
> Big Nose wrote:
>
>> If a transceiver has an in built automatic antenna tuning and matching
>> unit, is there any point in measuring the VSWR as a way of ascertaining
>> its performance?
>
>
> NOPE! The VSWR in the line = The VSWR in the line = The VSWR in the
> line = The VSWR in the line. The internal tuner does absolutely nothing
> [NOTHING] to the VSWR in the line.
>
> The internal tuner will make the radio 'happy' within it's tuning range,
> but it does NOTHING about the VSWR in the line!
>
>
>>
>> Obviously this would be measured with a thru line meter which would be
>> placed in the feeder system. However, I have been thinking and it
>> would appear that the tuning and matching unit would become part of the
>> antennas impedance (its late and I hope that makes sense).
>>
>> The reason I ask is because I am trying to find out how well certain
>> transceivers will perform with antennas which are designed for
>> different systems.
>>
>
To elaborate just a bit on Dave's comment, remember that the VSWR is
determined only by the LOAD (antenna) impedance and the LINE
characteristic impedance. The source (transmitter) impedance does not
enter into the determination of VSWR.

One way tuners are tested is with dummy loads of various resistances
(and/or reactances). QST published some articles on this a few years ago.

Good luck.

Chuck, NT3G

489. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 00:14:07 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <j9iZf.11408$I%6.8220@fed1read12>
Source record: 61531

"Thomas anonymous" <Thomas.anonymous.25v2z9@news.radiobanter.com> wrote in
message news:Thomas.anonymous.25v2z9@news.radiobanter.com...
>
> Well, that's what you call a definitive answer, hi. I live on the
> Canadian Wet Coast, near Vancouver --- you could say moisture is
> sometimes a factor around here ...
> :)
>
> Thx and 73 from Canada
>
>
> --
> Thomas anonymous

Thomas,

Belden made a product called "Shielded Perm-ohm" 300 ohm shielded twin
lead. It apparently still exists, but not with that name. Go to
http://www.fairradio.com/wirean.htm and search for it. The
product is now called "City Color," according to that web page.

Some years ago I used it to pass perfect TV signals through a 15-foot
conduit
out of my attic . (An earlier attempt with regular twinlead was a
disaster.) I
believe the shielded twin lead has slightly less loss than coax.

490. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 00:44:55 UTC
From: amdx <amdx@worldnet.att.net>
Message-ID: <785a6$4435b605$45011502$12759@KNOLOGY.NET>
Source record: 61532

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:123auob9ii13c8c@corp.supernews.com...
> amdx wrote:
> > . . .
> > My questions still stand,
> > Question 1
> > How many gausse is used to measure permeability and set AL?
>
> Essentially zero.

Ok, So I'll use the figure of 1 gausse as where permeability is measured and
from there I can assume the inductance increases 40 percent at 2000 gausse
for the toroid specified on the Magnetics webpage. The only info I have is
from
Ferroxcube Soft Ferrites and accessories 2000 data book, and it simply says
"The initial permeabilty is measured------ at a very low field strength."

> > Question 2.
> > Can anyone take a stab at how many gausse in a typical FT140-43 toroid
> > with 8 turns on the secondary, and 34 or 35 turns on the primary used on
a
> > flag antenna with a low level signal.
>
> I won't bother to calculate it because the change in permeability would
> be so small you wouldn't be able to measure it. This is a non-problem;
> you're wasting your time worrying about it.

I'm not worrying, just curious, since I've been using a large potcore to
deliver microwatts that at one time I used at near a kilowatt. Just
wondered
if we were losing some low frequency response because of a change in
permeability. It seems as though the permeabilty measurement is made nearer
the power levels of our receive antenna signals.

>
> > On the second question the material can be modified to reflect the
material
> > and turns as needed.
>
> If your circuit is sensitive to a change in a few parts per million of
> permeability, it has serious problems. The permeability will change
> several orders of magnitude more than that with modest changes in
> temperature.
>
> Roy Lewallen, W7EL

Thanks Roy,
I appreciate the discussion and information.
Mike

491. Given my restrictions, how can I improve my HF antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 00:53:23 UTC
From: Thomas anonymous <Thomas.anonymous.25vjn9@news.radiobanter.com>
Message-ID: <Thomas.anonymous.25vjn9@news.radiobanter.com>
Source record: 61534

I'm renting a basement suite and have an Icom 706mkII & MFJ-949E antenna tuner, and I need a better HF antenna arrangement than I already have (without going to a tower, hi). I would like to run a balanced feedline from the tuner to the feedpoint but the feedline has to go from my shack to where the feedpoint is, and that involves crossing a cement path --- in other words, because the feedline has to lie on top of cement it can't really be anything other than coax. I've put tons of pictures and explanations and diagrams on my webspace at: "http://members.shaw.ca/cyberhun/ham.htm"
--- please take a look and if you have any ideas let me know. I'm somewhat at a loss as to where to go with it now. I'm thinking the only way to significantly improve on the current arrangement is to run a feedline up from my shack, to the south-west corner of the roof. This would eliminate the need for coax (across the path) and then run radiating elements from the feedpoint to the south-west corner of the yard, and from the feedpoint to the south-east corner of the roof, maybe?
73 from canada
VA7FAB

--
Thomas anonymous

492. New program. Input Z of twin-lines.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 02:47:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <jKOdnUoR1JhoT6jZRVnygA@bt.com>
Source record: 61533

New program LINE_ZIN, for given frequency and load impedance, for
balanced-twin lines, calculates -

Impedance Zo
Input impedance, R+jX
Attenuation, dB
Power efficiency %
Loss with standing waves, dB
Reflection coefficient
Angle of refl.coeff.
SWR at load end
SWR at input end

Input data can be varied in small increments from the keyboard to
observe how a line behaves. Practical and educational.

Download program LINE_ZIN (40 K-bytes) in a few seconds from website
below and run imediately.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

493. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 03:22:01 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <JVkZf.64$LZ5.1@fe08.lga>
Source record: 61535

W8JI and other unbelievers that antenna and loading coils can not be expressed in electrical degrees, can find another example in ON4UN's Low Band DXing book, 4th edition, page 9-47, Fig 9-58, showing loaded vertical with mast being 40 deg. 59.6 ft. long, loading coil of 144 uH taking (replacing radiator of) 40 deg and whip of 10 deg and 14.9 ft long, for overall 90 deg electrical and quarter wave resonant system.
Soooo, to anyone outside of "equal current worshippers" it is obvious that coil is replacing 40 deg worth of radiator and it would drop equivalent amount of current across the coil that corresponds to the length of radiator that coil replaces, because rest of the "straight" radiator FORCES IT TO DO - because of standing wave and current.

Such a heresy!
Theeere is your sign!

Yuri, K3BU/m

494. 4/13/06 ERT Meeting

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 03:37:07 UTC
From: Bill Salisbury <bsalisbu@starstream.net>
Message-ID: <uMednZ7j5qT9Q6jZnZ2dnUVZ_uqdnZ2d@starstream.net>
Source record: 61536

I plan to distribute 4 CD copies of the draft Emergency Response manual to selected people next Thursday. Should we meet for a few minutes to go over an agenda? If so, name the time and date.

Bill Salisbury

495. Re: 4/13/06 ERT Meeting

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 03:40:48 UTC
From: Bill Salisbury <bsalisbu@starstream.net>
Message-ID: <uMednZnj5qShQqjZnZ2dnUVZ_uqdnZ2d@starstream.net>
Source record: 61537

Bill Salisbury wrote:
> I plan to distribute 4 CD copies of the draft Emergency Response manual
> to selected people next Thursday. Should we meet for a few minutes to
> go over an agenda? If so, name the time and date.
>
> Bill Salisbury
Sorry I hit the send key to soon

Bill

496. Source cod of program LINE_ZIN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 04:21:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <-tidnctwIpeFdKjZnZ2dnUVZ8s2dnZ2d@bt.com>
Source record: 61538

To satisfy the curiosity of people who may be interested in such
things, I have made the source code of program LINE_ZIN available from
my website. Look in the index for "Download Source Code from Here".

You can make what use you like of the information contained therein
but I don't have the time to provide any assistance or tutorial. And
don't make any reference to Yours Truly.

It's all free to USA citizens.

Download text file LINE_ZIN.pas from website below.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

497. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 04:43:48 UTC
From: w8ji@akorn.net
Message-ID: <1144385028.313255.108730@u72g2000cwu.googlegroups.com>
Source record: 61539

Yuri Blanarovich wrote:
> W8JI and other unbelievers that antenna and loading coils can not be
> expressed in electrical degrees, can find another example in ON4UN's Low
> Band DXing book, 4th edition, page 9-47, Fig 9-58, showing loaded vertical
> with mast being 40 deg. 59.6 ft. long, loading coil of 144 uH taking
> (replacing radiator of) 40 deg and whip of 10 deg and 14.9 ft long, for
> overall 90 deg electrical and quarter wave resonant system.
> Soooo, to anyone outside of "equal current worshippers" it is obvious that
> coil is replacing 40 deg worth of radiator and it would drop equivalent
> amount of current across the coil that corresponds to the length of radiator
> that coil replaces, because rest of the "straight" radiator FORCES IT TO
> DO - because of standing wave and current.

That is not correct Yuri.

Anything from a pure inductance to a very poor distributed inductor
(like a linear loading or stub) can be used and all would have
different characteristics.

A pure inductance would have no current difference at each end. A good
compact inductor would have negligible current difference at each end,
only a long straight wire would act like the "missing antenna".

One way to prove the coil does not replace missing length is to simply
move the coil to a new location in a fixed height antenna. If the coil
looked like 40 degrees, it would resonate the antenna no matter where
it was installed.

73 Tom

498. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 05:22:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ovsb329vl93str3g609rbm3tnkr4unrcfg@4ax.com>
Source record: 61540

On Thu, 6 Apr 2006 23:22:01 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

> it is obvious that coil is replacing 40 deg worth of radiator

Hi Yuri,

So obvious that you cannot express the accuracy necessary to resolve the "big picture." So obvious you cannot express the actual efficiency of having the coil there, or not having the coil there. So obvious that it is 40 degrees, that the previously unknown accuracy allows that to slip between 16.4 degrees and 63.6 degrees. So obvious that if you choose just the right number, then you can resonate on three bands with one coil. So obvious: who needs an antenna?

What is not obvious is the name of your religion.

> for overall 90 deg electrical and quarter wave resonant system.

Hence my recent correspondence has anticipated just this claim - but then that was as easy as shooting hunting partners in the face.

73's
Richard Clark, KB7QHC

499. Re: Given my restrictions, how can I improve my HF antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 05:39:08 UTC
From: dplatt@radagast.org
Message-ID: <123bunsakbdii6f@corp.supernews.com>
Source record: 61541

In article <Thomas.anonymous.25vjn9@news.radiobanter.com>,
Thomas anonymous <Thomas.anonymous.25vjn9@news.radiobanter.com> wrote:

>I'm renting a basement suite and have an Icom 706mkII & MFJ-949E antenna
>tuner, and I need a better HF antenna arrangement than I already have
>(without going to a tower, hi). I would like to run a balanced
>feedline from the tuner to the feedpoint but the feedline has to go
>from my shack to where the feedpoint is, and that involves crossing a
>cement path --- in other words, because the feedline has to lie on top
>of cement it can't really be anything other than coax.

You could make up a section of shielded balanced line, to get the feed
across the cement without having it couple messily into the ground.

A shielded balanced line can be made from two equal-length runs of
coax cable. RG-6 would work; aluminum-jacketed cable-TV hardline
might be even better from an electrical standpoint although its
rigidity might be inconvenient. Connect the shields/braids of the two
sections of coax together at each end, use the center conductors
to carry the signal, and fasten the two coaxes together in some
convenient fashion (an occasional nylon wire-tie would do, I believe).

The impedance of such a line will be twice that of the individual
pieces of coax - i.e. 150 ohms if you use RG-6. No need to worry
about matching it to the rest of the balanced feedline. You can use
300 or 450 or 600-ohm (nominal) balanced line where convenient, to
keep the losses as low as practical, and this 150-ohm shielded
balanced pair where necessary. The losses should be acceptable, and
will certainly be less than if you plumbed the whole distance with 50-
or 75-ohm coax.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

500. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 05:45:28 UTC
From: "Allan R. Batteiger" <arb@rtsi.com>
Message-ID: <Y%mZf.369987$fe6.129198@fe01.news.easynews.com>
Source record: 61542
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

mcalhoun@ksu.edu wrote in news:e13e9u$q3u@unix1.cc.ksu.edu:

> I gave a presentation on "How Ham Radio Can Help You in an Emergency"
> to 70 Emergency Management types last week, and the windows in the
> building which hosted the meeting were NOT open-able (so I "made do"
> with an inside VHF antenna and didn't even try to demonstrate HF).
>
> But in emergency/expedient situations, it would be really handy if one
> could pass at HF, say, 100 watts of RF energy through a window (I
> visualize some foil strips and an inductor or two to "tune out" the
> capacitance) to an external antenna.
>
> I've been told that the April, 1989, issue of Ham Radio magazine carried
> an article "Easy antenna access for urban apartment dwellers" (for 15
> meters) by Bryan Bergeron, NU1N, starting on page 18.
>
> I'd sure like to read that article; can anyone send me a copy?

I do not have the article but one solution that was proposed and tried worked great. Use tinfoin and rubber glue, cut the tin foil to fit the glass. Apply rubber glue to hold the foil to each side of the glass, Thickness of teh glass is not important. In my case I used the metal frame of the glass to carry the gound signal through the window frame. I then used an antenna tuner to adjust out the capacitor I just created. Worked great, no drilling no running coax in and out so I can close the window etc.

Allan
WB5QNG

501. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 06:37:20 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144391840.390341.262170@e56g2000cwe.googlegroups.com>
Source record: 61543

Another 'speriment occured to me, for those who think the coil current MUST be different at the two ends by the amount corresponding to the antenna section it replaces: try making the antenna diameter large compared with the coil diameter, say two to four times the coil diameter, while maintaining the same lengths, and see what happens. I suppose you'll have to adjust the inductance of the coil, but keep its diameter and length the same. If the current at the ends of the coil remains nominally the same as with a thin antenna, then I'll say you're onto something. If on the other hand, the current becomes much more similar at the two ends of the coil, that will be evidence of a different effect--in fact the effect that I expect is actually accounting for the difference.

Perhaps someone would like to try that in NEC2 or NEC4 and share the results, if nobody is actually up to building the antenna and measuring things.

Cheers,
Tom

Tom, W8JI, wrote in Message-ID:
<1144385028.313255.108730@u72g2000cwu.googlegroups.com>:
Yuri Blanarovich wrote:
> W8JI and other unbelievers that antenna and loading coils can not be
> expressed in electrical degrees, can find another example in ON4UN's Low
> Band DXing book, 4th edition, page 9-47, Fig 9-58, showing loaded vertical
> with mast being 40 deg. 59.6 ft. long, loading coil of 144 uH taking
> (replacing radiator of) 40 deg and whip of 10 deg and 14.9 ft long, for
> overall 90 deg electrical and quarter wave resonant system.
> Soooo, to anyone outside of "equal current worshippers" it is obvious that
> coil is replacing 40 deg worth of radiator and it would drop equivalent
> amount of current across the coil that corresponds to the length of radiator
> that coil replaces, because rest of the "straight" radiator FORCES IT TO
> DO - because of standing wave and current.

That is not correct Yuri.

Anything from a pure inductance to a very poor distributed inductor (like a linear loading or stub) can be used and all would have different characteristics.

A pure inductance would have no current difference at each end. A good compact inductor would have negligible current difference at each end, only a long straight wire would act like the "missing antenna".

One way to prove the coil does not replace missing length is to simply move the coil to a new location in a fixed height antenna. If the coil looked like 40 degrees, it would resonate the antenna no matter where it was installed.

73 Tom

502. Re: Source cod of program LINE_ZIN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 06:41:32 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144392092.630246.102690@v46g2000cwv.googlegroups.com>
Source record: 61544

Source cod?? Oh, I hope there's nothing that fishy about it.

(Sorry, Reg, I couldn't resist. Oh, and don't tell George W. about it;
he's liable to declare war on it.)

Cheers,
Tom

503. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 06:47:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123c2oranvatgf4@corp.supernews.com>
Source record: 61545

Of course loading coils can be expressed in electrical degrees. But extrapolating this to mean that a loading coil has the same properties as an antenna with the same number of "degrees" has no justification.

Yuri's theory was shown to be false not only by many of the good technical arguments given here in this thread, but also by a careful measurement I made over a year ago. I built a 33 foot high vertical and loaded it at the bottom with a toroidal inductor to resonate it at 3.8 MHz. The coil "replaced" 33.4 electrical degrees of antenna. Yuri's theory predicts that the current at the top of the inductor should be 16.5% less than that at the bottom, with a phase shift of 33.4 degrees. What I measured was a current drop of 5.4% and no measurable phase shift across the inductor. Both the description of the setup and the detailed results were posted on this newsgroup on Nov. 11, 2003, with the subject title "Re: Current in antenna loading coils controversy - new measurement". Anyone can find those postings with groups.google.com.

Yuri's response, also on Nov. 11, 2003 was to complain about my methodology, declare that he was still right, and state "I will measure things myself, try to verify previous measurements and then come up with conclusions and 'theory'."

On Nov. 12, 2003, he posted: "I will be making snap-on current probe, which will make it easier to slide along the element and observe the current without the disturbance to the antenna and will be a bit different over the thermocouple meters. Just need a bit more time."

Well, it's been over a year now, and all I've seen is the same unsupported theory with no evidence to contradict the contrary evidence which has been presented.

When a belief stays fixed in spite of both contradictory solid theory and measurements, it fits into the category of religion, not science. So it's appropriate that Yuri speaks in terms of an explanation being a "heresy". What's next, "good" and "evil" theories?

Roy Lewallen, W7EL

Yuri Blanarovich wrote:
> W8JI and other unbelievers that antenna and loading coils can not be
> expressed in electrical degrees, can find another example in ON4UN's Low
> Band DXing book, 4th edition, page 9-47, Fig 9-58, showing loaded vertical
> with mast being 40 deg. 59.6 ft. long, loading coil of 144 uH taking
> (replacing radiator of) 40 deg and whip of 10 deg and 14.9 ft long, for
> overall 90 deg electrical and quarter wave resonant system.
> Soooo, to anyone outside of "equal current worshippers" it is obvious that

> coil is replacing 40 deg worth of radiator and it would drop equivalent
> amount of current across the coil that corresponds to the length of radiator
> that coil replaces, because rest of the "straight" radiator FORCES IT TO
> DO - because of standing wave and current.
>
> Such a heresy!
> Theeere is your sign!
>
> Yuri, K3BU/m
>
>

504. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 06:51:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123c2vmeq69bv41@corp.supernews.com>
Source record: 61546

K7ITM wrote:
> Another 'speriment occured to me, for those who think the coil current
> MUST be different at the two ends by the amount corresponding to the
> antenna section it replaces: try making the antenna diameter large
> compared with the coil diameter, say two to four times the coil
> diameter, while maintaining the same lengths, and see what happens. I
> suppose you'll have to adjust the inductance of the coil, but keep its
> diameter and length the same. If the current at the ends of the coil
> remains nominally the same as with a thin antenna, then I'll say you're
> onto something. If on the other hand, the current becomes much more
> similar at the two ends of the coil, that will be evidence of a
> different effect--in fact the effect that I expect is actually
> accounting for the difference.
>
> Perhaps someone would like to try that in NEC2 or NEC4 and share the
> results, if nobody is actually up to building the antenna and measuring
> things.

I'm afraid that the proponents of the alternative theories aren't subject to either modeling or measurement results. There's already ample theoretical, modeling, and measurement evidence to show that the theory is faulty; further efforts would be a waste of time.

Roy Lewallen, W7EL

505. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 09:06:37 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <zdYr7JHduiNEFAVB@ifwtech.co.uk>
Source record: 61547

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> Based entirely on what you yourself have written, I have told you
>>that you don't understand something.
>
>Unless you can prove you are omniscient, Ian, the problem could
>possibly be with your misunderstanding of something, not mine.
>

It certainly *is* possible to make a correct analysis of a short coil-loaded antenna in terms of forward, reflected and standing waves of current.

My objections are only about errors in Cecil's specific attempt to do it.

This particular problem is a small hole in our jigsaw puzzle of human knowledge. It would certainly be worthwhile to craft a new piece, and to have the satisfaction seeing it fit exactly into place.

But jigsaw puzzles have unbreakable rules: a new piece must fit EXACTLY into the gap that it fills; and everywhere around its edges, the picture MUST join up EXACTLY. If it fails to fit exactly and in every detail, then it isn't the right piece.

All the surrounding pieces of existing knowledge about antenna engineering fit neatly together to make a solid picture. We can see the big picture, and that we're only trying to fill a very small gap.

That big picture is made up from only a very few primary colors. They can blend together to give infinite hues and subtleties, but everything comes from mixing those same few primary colors which DO NOT CHANGE.

The 'primary colors' of antenna engineering are a few fundamental physical facts that DO NOT CHANGE from one piece of the puzzle to the next. (Out at the far edges of the puzzle, the advances of 20th-century physics have shown that classical physics is part of an even bigger picture than we'd imagined - but in doing so they have confirmed where the rules of classical physics still CAN be applied. That includes the whole of electrical and electronic engineering, except for what happens inside semiconductor devices. Regarding antennas, Einstein's equations include and clarify Maxwell's equations, and quantify the margins of error in this area of classical physics. This confirms that antenna engineering indeed CAN be completely and accurately understood using classical physics, because the margins of error are too small to affect any practical observations.)

Returning to this particular gap in the picture of antenna engineering, concerning short loaded antennas, we can see that it's only a small gap. It is surrounded by large areas of existing knowledge that interlock solidly and completely. That means we can be confident there will be nothing different or special happening inside that gap.

When trying to fill any gap in our existing knowledge, that piece of advance information - that the same fundamentals will apply - is a tremendous help. Or it should be... the trouble starts when someone tries to ignore that fact, or worse still, tries to fight it.

It is also important to note that there are already several other ways of thinking about loaded antennas that DO fit perfectly into the puzzle. There are many alternative ways to think about any particular piece, and as long as they fit with reality all around them, they are interchangeable.

Cecil wants to try a method based on forward, reflected and standing waves, and that's just fine. As i said, I'm sure it can be done. The existing knowledge that such a theory must fit includes: what travelling and standing waves are; what electric current is; what inductance does; how real-life coils are different; and how things change when circuits become physically large enough to make electromagnetic coupling important (so we begin to call them antennas).

But Cecil's new piece for the puzzle uses new and special definitions and properties for electric current, inductance, and travelling and standing waves - they are not the same as in all the surrounding pieces. To me, that is absolute proof that his new piece doesn't fit. He has bent the rules to make it resemble the correct shape, but the colors don't match.

Exactly why it doesn't fit remains a matter for debate. But I am fundamentally sure of the *fact* that it doesn't.

(Will be away from the screen now until about Tuesday.)

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

506. Re: Balloon lifted wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 10:34:32 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <WdrZf.824$FI.28@fed1read09>
Source record: 61548

Ralph Mowery wrote:
>
> I see that you have reached your limit. Check the data and repost with
> the correct ammount of electrons, protrons and neutrons.
Ralph,
check the periodic table again.
helium is a NOBLE gas (it exists on the far right hand column of the
periodic table because of its non-reactiveness).

Helium is Element 2.
atomic weight: 4.002602
Number of Protons/Electrons: 2
Number of Neutrons: 2

information from this link <
http://www.webelements.com/webelements/elements/text/He/key.html >
is as follows:

"Helium is one of the so-called noble gases. Helium gas is unreactive,
colourless, and odourless. Helium is available in pressurised tanks.
Elemental helium is a colourless odourless monoatomic gas. Helium is the
second most abundant element in the universe after hydrogen. a particles
are doubly ionised helium atoms, He2+.
Helium is used in lighter than air balloons and while heavier than hydrogen,
is far safer since helium does not burn. Speaking after breathing an
atmosphere rich in helium results in a squeaky voice (don't try it!).
Isolation
Here is a brief summary of the isolation of helium.
There is very little helium on earth as nearly all present during and
immediately after the earth's formation has long since been lost as it is
so light. Just about all the helium remaining on the planet is the result
of radioactive decay. While there is some helium in the atmosphere,
currently its isolation from that source by liquefaction and separation of
air is not normally economic. This is bacause it is easier, and cheaper, to
isolate the gas from certain natural gases. Concentrations of helium in
natural gas in the USA are as high as 7% and other good sources include
natural gas from some sources in Poland. It is isolable from these gases by
liquefaction and separation of from the natural gas. This would not
normally be carried out in the laboratory and helium is available
commercially in cylinders under pressure."

note the part where it says:
"There is very little helium on earth as nearly all present during and
immediately after the earth's formation has long since been lost as it is
so light. Just about all the helium remaining on the planet is the result

of radioactive decay."

would you care to explain that?????

conversely, Hydrogen is:
Element 1
atomic weight: 1.00794
Number of Protons/Electrons: 1
Number of Neutrons: 0

hydrogen is also known to have *at least* 5 known isotopes (all unstable and
all prone to radioactive decay).

lastly, as for your personal dig at my signature, me thinks thou doth
protest too much!

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

507. Re: Balloon lifted wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 10:41:51 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <NkrZf.825$FI.39@fed1read09>
Source record: 61549

jawod wrote:

> last time I checked Helium has 2 protons and 2 electrons. I think the
> previous poster implied that hydrogen exists as molecular hydrogen: H2,
> as opposed to He that is mono-atomic.

there was no reference to diatomic structures that I could discern. :(
the problem with hydrogen is that it likes to either react with elements
that are stable in diatomic form (such as Oxygen) or other elements that
may have an excess of electron valence values (free electrons). Being that
Hydrogen is a proton with an electron in orbit, the + charge of the proton
will naturally tend to repel other elements of an equal charge, including
itself.

>
> However, you have the better point: Hydrogen spells danger. Hydrogen,
> Hindenburg,...If being a survivor means being a pansy...cool.

the one advantage of Hydrogen is that it is very easy to produce planet side
(add a little electricity, 2 probes of the same metal and enough water and
there you go).

Helium is rather harder to get here on earth. because of the processes
involved, it tends to be pricey.

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence
has its limits.

508. Re: Balloon lifted wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 10:54:19 UTC
From: N7ZZT - Eric Oyen <n7zzt@127.0.0.1>
Message-ID: <twrZf.826$FI.549@fed1read09>
Source record: 61550

AC7PN wrote:

> It is not the size of the atom that is relevant here. The important
> thing is the size of the molecule. Helium is a one atom molecule while
> Hydrogen is a two atom molecule. A single atom is much smaller than a
> two atom molecule. Hence helium being the only single atom molecule in
> existence, it is the king of jail break being able to slip through the
> bars of any plastic prision cell.
>
> Bob Brunius
> Orcas Island, WA
> AC7PN

ok,
the original poster did not clarify as to which isotope of hydrogen was being used. H2 is a stable isotope (and yeah, I do stand corrected on that point). Still, the energies required to get 2 protons and 2 electrons to get along are fairly high. Hydrogen (H not 1 or 2 or bloody 3...) is very small (smaller than helium) and will tend to slip through most materials (except for possibly the extremely dense materials such as Polonium).

perhaps in the future, we should be a bit more concise about things like this..... now I know that diatomic hydrogen is fairly common in nature (as in H2O, CH2 and a few others). I would have to ask a question of some folks over at ASU to see what they use for high atmosphere balloons.

--
DE N7ZZT
Eric Oyen
Phoenix, Arizona
e-mail: n7zzt(at)hotmail(dot)com
the difference between intelligence and stupidity is that intelligence has its limits.

509. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 12:40:12 UTC
From: Brian Murrey <brian@iquest.net>
Message-ID: <M4tZf.4154$i41.3152@newsread1.news.atl.earthlink.net>
Source record: 61551
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Perhaps.

In an emergency situation though, you do what you need to do and try not to let the regulations keep you from saving lives and/or property..while still keeping the regs in mind.

When I use my portable mag loop for 20 and 40, from my hotel room, I try to place it outside my room...but that hasn't always been possible. At my low power I would have to guess the RF I'm bathing in should only be slightly more harmful than the X rays leaking out of my cheap "Made in Turdistan" TV set. I certainly wouldn't attempt using this setup with much more than a few watts of power.

As for my attic dipoles, I have never tried to measure the exposure level in my home. I'll check in to that..but again, at 5w or less it can't be too dangerous.

73

--
==
Radio Amateurs - Fill your junk box, from my junkbox!
http://www.hamradparts.com
73 de KB9BVN
==

<mcalhoun@ksu.edu> wrote in message news:e13sq1$fev@unix1.cc.ksu.edu...
> >You'd have better luck with HF than VHF or UHF making it through any
solid
> >object. I have used a homebrew mag loop in a hotel room on several
> >ocassions with some luck..on 20 and 40.
>
> Even in an emergency situation, I just don't think it would be a good idea
> to string some kind of an antenna above the heads of shelterees and then
> start soaking them with RF, especially depending on the HF frequency in
> use. In fact, I suspect the FCC's RF-exposure regulations would frown on
> one doing so!
>
> --
> --Myron A. Calhoun.
> Five boxes preserve our freedoms: soap, ballot, witness, jury, and
cartridge
> PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785)
539-4448
> NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle,

Pistol)

510. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 12:59:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ZmtZf.52674$2O6.52535@newssvr12.news.prodigy.com>
Source record: 61552

w8ji@akorn.net wrote:
> A pure inductance would have no current difference at each end.

Hard to prove by measurements since a pure inductance doesn't
exist in reality. It's like saying there's no loss in a lossless
transmission line which is true by definition.

> One way to prove the coil does not replace missing length is to simply
> move the coil to a new location in a fixed height antenna. If the coil
> looked like 40 degrees, it would resonate the antenna no matter where
> it was installed.

The coil occupies a different number of degrees depending upon
its location in the standing wave environment. That's why the
resonant frequency of a bugcatcher system increases as the
coil is moved up from the base. In a one wavelength standing
wave system, if the coil is installed at a node, the currents
at each end of the coil will be ~180 out of phase, i.e. the
two currenets *appear* to be flowing in opposite directions at
the same time.
--
73, Cecil http://www.qsl.net/w5dxp

511. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 13:03:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <wqtZf.52675$2O6.51376@newssvr12.news.prodigy.com>
Source record: 61553

K7ITM wrote:

> Another 'speriment occured to me, for those who think the coil current
> MUST be different at the two ends by the amount corresponding to the
> antenna section it replaces:

To the best of my knowledge, nobody believes that. The coil
is much more efficient at the loading function than is the
straight wire from which it is made. That's why inductive
loading is more efficient than fractal antennas or other
types of linear loading.
--
73, Cecil http://www.qsl.net/w5dxp

512. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 13:24:28 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <xKtZf.1$WF1.0@fe10.lga>
Source record: 61554

<w8ji@akorn.net> wrote in message
news:1144385028.313255.108730@u72g2000cwu.googlegroups.com...
>
> Yuri Blanarovich wrote:
>> W8JI and other unbelievers that antenna and loading coils can not be
>> expressed in electrical degrees, can find another example in ON4UN's Low
>> Band DXing book, 4th edition, page 9-47, Fig 9-58, showing loaded
>> vertical
>> with mast being 40 deg. 59.6 ft. long, loading coil of 144 uH taking
>> (replacing radiator of) 40 deg and whip of 10 deg and 14.9 ft long, for
>> overall 90 deg electrical and quarter wave resonant system.
>> Soooo, to anyone outside of "equal current worshippers" it is obvious
>> that
>> coil is replacing 40 deg worth of radiator and it would drop equivalent
>> amount of current across the coil that corresponds to the length of
>> radiator
>> that coil replaces, because rest of the "straight" radiator FORCES IT TO
>> DO - because of standing wave and current.
>
>
> That is not correct Yuri.
>
> Anything from a pure inductance to a very poor distributed inductor
> (like a linear loading or stub) can be used and all would have
> different characteristics.

"Pure inductance" - get me one, never subject of discussion here, about real
antennas and real loading coils!

> A pure inductance would have no current difference at each end. A good
> compact inductor would have negligible current difference at each end,
> only a long straight wire would act like the "missing antenna".

More BS, insisting on non-reality.

> One way to prove the coil does not replace missing length is to simply
> move the coil to a new location in a fixed height antenna. If the coil
> looked like 40 degrees, it would resonate the antenna no matter where
> it was installed.

WRONG, read below, it's the required inductance/impedance and fixed
"missing" degrees that need replacement.

> 73 Tom
>

Another big WRONGO Tom!
As we go deeper into the discussion and "arguments" from "unbelievers" and thanks to NM5K posting, about how fixed coil acts different, replaces different amount of degrees, it hit me that the reason is the impedance presented by the antenna (the straight part) radiator at the coil insertion point. Using just as example, radiator having 90 degrees at the resonance, with 50 degrees of whip and coil "replacing" 40 degrees in the said example from the book.

You agree that impedance along the radiator changes, being low at the bottom, around tens of ohms, to being high at the top, around thousands of ohms. Now you place the loading coil along the radiator, one extreme being at the bottom, low impedance point - we know in order to maintain the resonance of say 13 ft high (long) radiator (90 electrical degrees at RESONANCE) the coil has a fewer turns, it's impedance is lower (as required by the lower impedance at the bottom end of the antenna), and current drop would relatively be small as W7EL proved and everybody knows.

Now you move that coil say half way up the must, to higher impedance point at the antenna, and that coil now, in order to maintain the "match" has to have higher impedance, more turns and will exhibit MORE current drop across it, while replacing THE SAME NUMBER OF "missing" DEGREES AT THE RADIATOR. Assuming that our goal is to stay with the same physical length of the whip (which we do) and maintaining 90 degrees of resonant radiator. So the radiator stays 50 degrees ()+50, 10+40, 20+30, 30+20, 40 + 10) long and coil replaces the same "missing" 40 degrees.

Same if you move the coil higher, higher antenna impedance point, more turns (inductance) required, more current drop exhibited, coil "replacing" THE SAME NUMBER OF 40 DEGREES. It needs more turns, but again, the coil's behavior is dictated by the impedance of the RADIATOR (standing waves) at the insertion point, dictating the inductance, number of turns of the coil in order to maintain the number of degrees, in order to maintain the resonance (90 degrees) of the radiator.

In order to "overturn" this "Yuri's Theory" you would have to deny that resonant antenna has varying current across its radiator (wire) - to deny that current drops from the base to the tip.
You would have to deny that coil in the RF circuit has varying impedance dependant on the number of turns and inductance and frequency.
Deny that in order to maintain the resonant frequency of shortened radiator of the same physical length, you need to use coils of varying amount of turns depending on its insertion point along the radiator (less on the bottom, more closer to the top).

That behavior of the coil is "FORCED" by the remaining "wires" in the radiator, in standing wave environment as Cecil is trying to get through with help of Kraus and others. So if the antenna is 50 degrees long and we want to maintain the resonance, the coil will replace (has to) the same 40 degrees regardless where it is placed, but its inductance and impedance will vary, depending on the impedance of the insertion point at the radiator. (Makes also sense - more turns - more current drop, RF choke effect. We are still talking RF current in standing wave antenna, not DC.)

So the drop of RF current across the coil, depending on its position in the resonant quarter wave radiator can be from little at the base, to significant closer to the top, dependent on the position, insertion point, impedance of the radiator. This is much more significant cause of current drop across the coil that any "radiation or capacitance to the environment" (Tom's trying to "twist out of it") as is demonstrated by our arguments.
So if we look at the fixed length of radiator and try to bring it to resonance with coils, placed at different locations along the radiator, we are replacing the SAME amount of electrical degrees, but depending on the required impedance, then the number of turns, or inductance has to be adjusted to conform. That jives what you and everybody knows and keep saying.
So it is not the fixed inductance, (missing) length of wire in the coil, or same number of turns that replaces degrees of "missing" radiator, but the REQUIRED INDUCTANCE/IMPEDANCE and corresponding number of turns.

I hope this makes it little bit more clear and shuts down another WRONGOOO that keeps popping up. Just measure it, stick it (properly defined) in EZNEC - IT IS ALL THERE, for everyone to see.

So then if the standing wave causes drop of the RF current across the solid wire of the antenna, it also causes the drop of current across the loading coil, proportional to the amount of electrical degrees of radiator that coil "replaces", magnitude being dependent on the impedance and inductance required by the insertion point impedance along the radiator. (Almost sounds like "Yuri's Law" :-)

I would like to thank NM5K for bringing it up and making me to understand what the "problem" and proof is. It made me realize what role impedance of the inductor plays in the STANDING WAVE antenna/circuit.
Sooo! The coil can and have RF current variation, drop across it, just like piece of wire can, when in standing wave (antenna) environment. It is the major cause and not the whatever capacitance etc. You wanna call it K3BU's theory, I would be honored, but I do not claim any "ownership", many others before me showed that, directly or indirectly, including John Kraus, W8JK.

I promise to do that article and series of experiments showing close correlation between measurements and proper modeling in EZNEC, just give me couple of weeks. I hope it will show and educate those willing to open their minds, and those "flat Earthers" can do what they choose to (look silly).
I hope I made it more clear. I don't know how else I (we) can get it through!

Soooo, but, but, but.... what?

Yuri Blanarovich, K3BU.us

I apologize to technical language purists for any clumsy wordiness' I may be guilty of.

513. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 13:37:09 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@dsl.pipex.com>
Message-ID: <7PCdneWp1f8g96vZRVnytQ@pipex.net>
Source record: 61555
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

>> But in emergency/expedient situations, it would be really handy if one
>> could pass at HF, say, 100 watts of RF energy through a window (I
>> visualize some foil strips and an inductor or two to "tune out" the
>> capacitance) to an external antenna.
>
> What I have done is plan ahead by drilling two small holes in the glass
> and plugging them with nylon screws when not in use. That works best
> on the first floor. :-)
==========
Might be OK for single - ,but NOT for double glazed windows.

A solution for HF 'might' be an inductive coupler/matching unit , with
half of it including an inductor on the outside with the other inductor
and 'tuning bits' inside .Both inductors 'in-line' for best possible
coupling. If an outside variable capacitor is to be used ,its shaft
could possibly be magnetically coupled with a manipulator fitted inside
,using strong magnets .
Home-brewing Ham Radio equipment is and remains an interesting
ideas-provoking activity .

Frank GM0CSZ / KN6WH

514. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 13:44:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <dGtZf.52714$2O6.7227@newssvr12.news.prodigy.com>
Source record: 61556

Roy Lewallen wrote:
> Of course loading coils can be expressed in electrical degrees. But
> extrapolating this to mean that a loading coil has the same properties
> as an antenna with the same number of "degrees" has no justification.

I haven't heard anybody make that assertion in years. Coils
occupy whatever number of degrees that they occupy. The
technical fact is that standing wave current phase cannot be
used as the method of measuring the number of degrees. The
graphic at http://www.travstnd.GIF shows why. The standing
wave current phase is unchanging unless the monopole length
goes over 1/4WL.

> What I measured was a current drop of 5.4% and no measurable phase shift
> across the inductor.

But Roy, you used standing wave current phase to try to measure
the phase shift across the inductor. The standing wave current
phase is known to be unchanging in a wire. Why would you expect
it to change through a coil? As Gene Fuller says, the only phase
information in the standing wave current is in the magnitude
measurement. If the magnitude changed by 5.4%, the phase shift
was roughly arc-cos(1 - 0.054) = arc-cos(0.946) = ~19 degrees.

Please take a look at what EZNEC says about the standing wave
phase shift in 1/4WL of wire at:

http://www.qsl.net/w5dxp/travstnd.GIF

and please tell us again how you used a current with an unchanging
flat phase to try to measure the phase shift through a coil.

> Well, it's been over a year now, and all I've seen is the same
> unsupported theory with no evidence to contradict the contrary evidence
> which has been presented.

No evidence? Even EZNEC says one cannot use standing wave current
phase to measure phase shift. I told you that fact over a year ago.
Your phase measurement methods are just as invalid today as they
were a year ago.

> When a belief stays fixed in spite of both contradictory solid theory
> and measurements, it fits into the category of religion, not science.

You are talking about your religious method of using the unchanging
standing wave current phase to try to measure a phase shift. EZNEC
says that is not a valid approach.

Regarding the cos(kz)*cos(wt) term in a standing wave:

> Gene Fuller, W4SZ wrote:
>> In a standing wave antenna problem, such as the one you describe, there is no
>> remaining phase information. Any specific phase characteristics of the traveling
>> waves died out when the startup transients died out.
>>
>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen again.
>>
>> The only "phase" remaining is the cos (kz) term, which is really an amplitude
>> description, not a phase.
--
73, Cecil http://www.qsl.net/w5dxp

515. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 13:47:14 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <T3uZf.3633$aN4.2149@fe12.lga>
Source record: 61557

Roy,
please see my other posting, otherwise, I really promise to do the step by step article, which will try to explain, correlate real life measurements and modeling and present the comprehensive case of current being different across antenna loading coils. Will do that with cooperation of other "defenders" that contributed to "our" cause. There is no point of going back and forth on tangents. We will measure, show the reality and then apply some theory, explanation and summary of what is going on.
I hope it will correct misconceptions, provide better understanding and benefit in proper modeling and design of loaded antenna elements and systems.
Otherwise, I think we have reached point, when it is pointless to go around in circles and argue that what IS, CAN'T BE, because.....

Yuri, K3BU

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:123c2oranvatgf4@corp.supernews.com...
> Of course loading coils can be expressed in electrical degrees. But
> extrapolating this to mean that a loading coil has the same properties as
> an antenna with the same number of "degrees" has no justification.
>
> Yuri's theory was shown to be false not only by many of the good technical
> arguments given here in this thread, but also by a careful measurement I
> made over a year ago. I built a 33 foot high vertical and loaded it at the
> bottom with a toroidal inductor to resonate it at 3.8 MHz. The coil
> "replaced" 33.4 electrical degrees of antenna. Yuri's theory predicts that
> the current at the top of the inductor should be 16.5% less than that at
> the bottom, with a phase shift of 33.4 degrees. What I measured was a
> current drop of 5.4% and no measurable phase shift across the inductor.
> Both the description of the setup and the detailed results were posted on
> this newsgroup on Nov. 11, 2003, with the subject title "Re: Current in
> antenna loading coils controversy - new measurement". Anyone can find
> those postings with groups.google.com.
>
> Yuri's response, also on Nov. 11, 2003 was to complain about my
> methodology, declare that he was still right, and state "I will measure
> things myself, try to verify previous measurements and then come up with
> conclusions and 'theory'."
>
> On Nov. 12, 2003, he posted: "I will be making snap-on current probe,
> which will make it easier to slide along the element and observe the
> current without the disturbance to the antenna and will be a bit different
> over the thermocouple meters. Just need a bit more time."
>

> Well, it's been over a year now, and all I've seen is the same unsupported
> theory with no evidence to contradict the contrary evidence which has been
> presented.
>
> When a belief stays fixed in spite of both contradictory solid theory and
> measurements, it fits into the category of religion, not science. So it's
> appropriate that Yuri speaks in terms of an explanation being a "heresy".
> What's next, "good" and "evil" theories?
>
> Roy Lewallen, W7EL
>
> Yuri Blanarovich wrote:
>> W8JI and other unbelievers that antenna and loading coils can not be
>> expressed in electrical degrees, can find another example in ON4UN's Low
>> Band DXing book, 4th edition, page 9-47, Fig 9-58, showing loaded
>> vertical with mast being 40 deg. 59.6 ft. long, loading coil of 144 uH
>> taking (replacing radiator of) 40 deg and whip of 10 deg and 14.9 ft
>> long, for overall 90 deg electrical and quarter wave resonant system.
>> Soooo, to anyone outside of "equal current worshippers" it is obvious
>> that coil is replacing 40 deg worth of radiator and it would drop
>> equivalent amount of current across the coil that corresponds to the
>> length of radiator that coil replaces, because rest of the "straight"
>> radiator FORCES IT TO DO - because of standing wave and current.
>>
>> Such a heresy!
>> Theeere is your sign!
>>
>> Yuri, K3BU/m
>>

516. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 13:51:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <GYWdnYgY3ucv86vZRVnyrA@bt.com>
Source record: 61558

I fail to see what you are all arguing about.

A length of transmission line, or a coil insofar as it behaves as a length of transmission line, has a fixed number of degrees of phase shift which depends only on frequency.

You can shift it about, put it in a different antenna, do what you like with it, but, at the same frequency, it will always have the same number of degrees.

Now stop this childish argument before I bang your heads together.

Referee Reg.

517. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 14:24:05 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <9CuZf.9121$4L1.3131@newssvr11.news.prodigy.com>
Source record: 61559

"Roy Lewallen" <w7el@eznec.com> wrote:
> Of course loading coils can be expressed in electrical degrees. But
> extrapolating this to mean that a loading coil has the same properties
> as an antenna with the same number of "degrees" has no justification.

I haven't heard anybody make that assertion in years. Coils
occupy whatever number of degrees that they occupy. The
technical fact is that standing wave current phase cannot be
used as the method of measuring the number of degrees. The
graphic at http://www.travstnd.GIF shows why. The standing
wave current phase is unchanging unless the monopole length
goes over 1/4WL.

Here's what you said earlier:
>I said that Cecil's phase measurements agree with EZNEC (and generally
>accepted theory) -- there should be almost no phase shift in the current
>along the wire.

If there's no phase shift along the wire, why would you expect to
measure phase shift through a coil. After you made the above
posting, I thought you understood that - but apparently not.

I told you that your phase shift measurement was invalid a year ago
and it is just as invalid now as it was then. There is no phase information
contained in standing wave current phase. This is the basic misconception
that has resulted in invalid data reported by you.

> What I measured was a current drop of 5.4% and no measurable phase shift
> across the inductor.

But Roy, you used standing wave current phase to try to measure
the phase shift across the inductor. The standing wave current
phase is known to be unchanging in a wire. Why would you expect
it to change through a coil? As Gene Fuller says, the only phase
information in the standing wave current is in the magnitude
measurement. If the magnitude changed by 5.4%, the phase shift
was roughly arc-cos(1 - 0.054) = arc-cos(0.946) = ~19 degrees.

Please take a look at what EZNEC says about the standing wave
phase shift in 1/4WL of wire at:

http://www.qsl.net/w5dxp/travstnd.GIF

and please tell us again how you used a current with an unchanging
flat phase to try to measure the phase shift through a coil.

> Well, it's been over a year now, and all I've seen is the same
> unsupported theory with no evidence to contradict the contrary evidence
> which has been presented.

No evidence? Even EZNEC says one cannot use standing wave current
phase to measure phase shift. I told you that fact over a year ago.
Your phase measurement methods are just as invalid today as they
were a year ago.

> When a belief stays fixed in spite of both contradictory solid theory
> and measurements, it fits into the category of religion, not science.

You are talking about your religious method of using the unchanging
standing wave current phase to try to measure a phase shift. EZNEC
says that is not a valid approach. Even Gene Fuller says there is zero
phase information in standing wave current wave and he generally
agrees with you.

Regarding the cos(kz)*cos(wt) term in a standing wave:

> Gene Fuller, W4SZ wrote:
>> In a standing wave antenna problem, such as the one you describe, there
is no
>> remaining phase information. Any specific phase characteristics of the
traveling
>> waves died out when the startup transients died out.
>>
>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen
again.
>>
>> The only "phase" remaining is the cos (kz) term, which is really an
amplitude
>> description, not a phase.
--
73, Cecil http://www.qsl.net/w5dxp

518. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 14:27:33 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <pFuZf.9122$4L1.5179@newssvr11.news.prodigy.com>
Source record: 61560

"Roy Lewallen" <w7el@eznec.com> wrote:
> I'm afraid that the proponents of the alternative theories aren't
> subject to either modeling or measurement results. There's already ample
> theoretical, modeling, and measurement evidence to show that the theory
> is faulty; further efforts would be a waste of time.

Roy, it is you who are ignoring the results of EZNEC. EZNEC proves
that one cannot use standing wave current phase to measure the phase
shift through a wire, much less through a coil. To see why, take a look at:

http://www.qsl.net/w5dxp/travstnd.GIF

The standing wave current is absolutely FLAT. It cannot be used for
any valid measurement.
--
73, Cecil, W5DXP

519. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 14:40:36 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ERuZf.9139$4L1.2327@newssvr11.news.prodigy.com>
Source record: 61561

"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote :
> It certainly *is* possible to make a correct analysis of a short
> coil-loaded antenna in terms of forward, reflected and standing waves of
> current.

The real question is: Is it possible for Ian White to make a mistake?
If the answer is, 'yes', then it possibly could be your mistake and
not mine. Or both of us could be making mistakes.

> But jigsaw puzzles have unbreakable rules: a new piece must fit EXACTLY
> into the gap that it fills; and everywhere around its edges, the picture
> MUST join up EXACTLY. If it fails to fit exactly and in every detail,
> then it isn't the right piece.

But what if somebody mutilated one of the pieces? That final piece is
not going to fit whether it is correct or not. That's what you have done -
mutilate one of the pieces so the final piece doesn't fit.

> Returning to this particular gap in the picture of antenna engineering,
> concerning short loaded antennas, we can see that it's only a small gap.
> It is surrounded by large areas of existing knowledge that interlock
> solidly and completely. That means we can be confident there will be
> nothing different or special happening inside that gap.

But some of the concepts in that large area of existing "knowledge" are
false. I know what your misconception is. If you will use your ears
instead of your mouth, you could understand what that misconception
really is.

> Cecil wants to try a method based on forward, reflected and standing
> waves, and that's just fine.

Not only is it a fine way to deal with the problem, its use exposes your
misconception. Wouldn't you like to correct that misconception?

> But Cecil's new piece for the puzzle uses new and special definitions
> and properties for electric current, inductance, and travelling and
> standing waves - they are not the same as in all the surrounding pieces.
> To me, that is absolute proof that his new piece doesn't fit.

All it means is that you mutilated one of the pieces. Fix your mutilated
piece and my piece will fit.

> Exactly why it doesn't fit remains a matter for debate. But I am
> fundamentally sure of the *fact* that it doesn't.

I agree it doesn't fit but the reason it doesn't fit is your mutilated
piece installed previously.

The mutilated piece is the nature of standing wave current and I know exactly how it was mutilated. If you are willing to discuss that narrow issue from a purely technical standpoint, I can show you how to fix your piece so that my piece will fit nicely just as it should.
--
73, Cecil, W5DXP

520. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 15:16:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <ZmvZf.56023$F_3.50269@newssvr29.news.prodigy.net>
Source record: 61562

"Yuri Blanarovich" <K3BU@optonline.net> wrote:
> Otherwise, I think we have reached point, when it is pointless to go
around
> in circles and argue that what IS, CAN'T BE, because.....

Yuri, I think it is obvious that some people are suffering from
misconceptions.

The misconception that the "experts" are suffering from has *nothing* to do
with coils. That's the reason the coil discussion has gone in circles. There
may not be anything wrong with the coil concepts.

The misconception is about standing wave current VS traveling wave current.
The "experts" have asserted that "current is current" and that standing wave
current is the same as traveling wave current even though they have
different
equations. Even EZNEC recognizes the difference between standing wave
current and traveling wave current. I took a quarter wavelength of wire and
drove it as a standing wave wire and as a traveling wave wire. The piece
of wire was identical in both cases. I've posted the EZNEC results a
number of times and none of the "experts" have responded. Here they are
again: The corresponding EZNEC files are available at:

http://www.qsl.net/w5dxp/TravWave.EZ I(x,t)=Io*cos(kx+wt)
http://www.qsl.net/w5dxp/StndWave.EZ I(x,t)==Io*cos(kx)*cos(wt)

% along current in current in
wire #2 TravWave.EZ StndWave.EZ

0.28% 0.9998 at -0.99 deg 0.9996 at 0 deg
9.72% 0.9983 at -9.39 deg 0.9843 at -0.03 deg
19.7% 0.9969 at -18.23 deg 0.9454 at -0.05 deg
30.3% 0.9957 at -27.59 deg 0.8843 at -0.06 deg
39.7% 0.9949 at -35.96 deg 0.8023 at -0.08 deg
49.7% 0.9945 at -44.84 deg 0.7014 at -0.09 deg
60.3% 0.9945 at -54.20 deg 0.5840 at -0.09 deg
69.7% 0.9949 at -62.58 deg 0.4528 at -0.10 deg
79.7% 0.9956 at -71.43 deg 0.3110 at -0.11 deg
89.7% 0.9965 at -80.27 deg 0.1616 at -0.11 deg
99.7% 0.9976 at -89.14 deg 0.0061 at -0.11 deg

These values reported by EZNEC are graphed at:

http://www.qsl.net/w5dxp/travstnd.GIF

Their differences are obvious. One might even argue that they are
opposites. The traveling wave magnitude looks like the standing

wave phase. The traveling wave phase looks like the standing wave magnitude. That fits perfectly with Gene Fuller's assertion that there is no phase information in standing wave current phase. The only phase information in the standing wave current is in the magnitude. Once the "experts" realize that is the source of their misconception, everything will fall into place.

Again, it is NOT about coils. It is all about misconceptions involving standing wave current.
--
73, Cecil, W5DXP

521. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 15:33:15 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <%CvZf.56025$F_3.39775@newssvr29.news.prodigy.net>
Source record: 61563

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:
> I fail to see what you are all arguing about.

Here's the argument in a nutshell, Reg.

Can standing wave current phase be used to determine the
phase shift through a coil (or through a wire)?

Some of us say, No. Some of the "experts" say, Yes, but
so far have failed to explain how or why that is a valid
measurement technique.
--
73, Cecil, W5DXP

522. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 15:55:35 UTC
From: Joel Kolstad <JKolstad71HatesSpam@yahoo.com>
Message-ID: <123d2sq52jmt2f8@corp.supernews.com>
Source record: 61564
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

"Brian Murrey" <brian@iquest.net> wrote in message
news:M4tZf.4154$i41.3152@newsread1.news.atl.earthlink.net...
> In an emergency situation though, you do what you need to do and try not to
> let the regulations keep you from saving lives and/or property..while still
> keeping the regs in mind.

Slightly off-topic, but see: http://www.truck.net/showdetail/rec_id/1182.
Bizarre...

523. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 16:08:25 UTC
From: w8ji@akorn.net
Message-ID: <1144426104.970207.48000@t31g2000cwb.googlegroups.com>
Source record: 61565

Yuri Blanarovich wrote:
> > A pure inductance would have no current difference at each end. A good
> > compact inductor would have negligible current difference at each end,
> > only a long straight wire would act like the "missing antenna".
>
> More BS, insisting on non-reality.

No, it is factual. No need to call names or get angry.

It is the stray capacitance from the inductor to the outside world that allows any difference in current. Not the standing waves, not the missing area of antenna.

I can have a fixed antenna and with no change other than the style of coil have anything from nearly immeasurable differences to large differences.

For example if the coil is a very large area single turn, it will behave almost like the "missing degrees" you talk about. If it is a compact inductor and has low capacitance to the outside world compared to the antenna above the coil, it will have very little current difference.

> > One way to prove the coil does not replace missing length is to simply
> > move the coil to a new location in a fixed height antenna. If the coil
> > looked like 40 degrees, it would resonate the antenna no matter where
> > it was installed.
>
> WRONG, read below, it's the required inductance/impedance and fixed
> "missing" degrees that need replacement.

>> As we go deeper into the discussion and "arguments" from "unbelievers" and
> thanks to NM5K posting, about how fixed coil acts different, replaces
> different amount of degrees, it hit me that the reason is the impedance
> presented by the antenna (the straight part) radiator at the coil insertion
> point. Using just as example, radiator having 90 degrees at the resonance,
> with 50 degrees of whip and coil "replacing" 40 degrees in the said example
> from the book.

What NM5K posting is that?

A coil is a coil. It doesn't know where you are using it. You teminate it with a certain impedance, it operates the same way.

You can call it "40 degrees" or anything you like, but you better not think it acts like that missing antenna area so far as phase shift or current difference between ends. It doesn't act that way.

If it DID act the way you seem to be saying, a base loaded antenna
would be a terrible antenna. Yet over a good groundplane with a
reasonable inductor design, they can be very good.

> You agree that impedance along the radiator changes, being low at the
> bottom, around tens of ohms, to being high at the top, around thousands of
> ohms.

I never said that. What do you mean by reactance? The X can be very
high but radiation resistance very low even near the open end.

>Now you place the loading coil along the radiator, one extreme being
> at the bottom, low impedance point - we know in order to maintain the
> resonance of say 13 ft high (long) radiator (90 electrical degrees at
> RESONANCE) the coil has a fewer turns, it's impedance is lower (as required
> by the lower impedance at the bottom end of the antenna), and current drop
> would relatively be small as W7EL proved and everybody knows.

So you admit your "my coil replaces 40 degrees" doesn't work? Or what
are you saying?

> Now you move that coil say half way up the must, to higher impedance point
> at the antenna, and that coil now, in order to maintain the "match" has to
> have higher impedance, more turns and will exhibit MORE current drop across
> it, while replacing THE SAME NUMBER OF "missing" DEGREES AT THE RADIATOR.

So the " 40 degrees" is just a meaningless number. It doesn't mean
anything so far as the coil goes. I'll go along with that.

> Assuming that our goal is to stay with the same physical length of the whip
> (which we do) and maintaining 90 degrees of resonant radiator. So the
> radiator stays 50 degrees ()+50, 10+40, 20+30, 30+20, 40 + 10) long and coil
> replaces the same "missing" 40 degrees.

As long as we both agree it does not have anywhere near the same amount
of current difference from start to finish the same length of antenna
would have, I agree.

If you are claiming the current difference at each end of the coil
relates to electrical degrees it "replaces" and not capacitance from
the coil to the outside world, I disagree.

> Same if you move the coil higher, higher antenna impedance point, more turns
> (inductance) required, more current drop exhibited, coil "replacing" THE
> SAME NUMBER OF 40 DEGREES. It needs more turns, but again, the coil's
> behavior is dictated by the impedance of the RADIATOR (standing waves) at
> the insertion point, dictating the inductance, number of turns of the coil
> in order to maintain the number of degrees, in order to maintain the
> resonance (90 degrees) of the radiator.

The only reason why the inductor could have more "current drop" (what a
concept! current doesn't drop.) is because displacement current from
capacitance can be a larger portion of load impedance. The coil, in
effect, it acting a bit like a tiny "hat" and robbingh the whip above
the coil of current. Some displacement current branches off to the

world around the coil, leaving less to travel upwards.

> In order to "overturn" this "Yuri's Theory" you would have to deny that
> resonant antenna has varying current across its radiator (wire) - to deny
> that current drops from the base to the tip.

I'm not sure what you are saying there.

> You would have to deny that coil in the RF circuit has varying impedance
> dependant on the number of turns and inductance and frequency.
> Deny that in order to maintain the resonant frequency of shortened radiator
> of the same physical length, you need to use coils of varying amount of
> turns depending on its insertion point along the radiator (less on the
> bottom, more closer to the top).
> That behavior of the coil is "FORCED" by the remaining "wires" in the
> radiator, in standing wave environment as Cecil is trying to get through
> with help of Kraus and others.

You are free to think what you like, but I don't think Kraus is helping Cecil. While a properly done use of standing waves would work, my opinion is Cecil just has a fixation on it and is trying to change the behavior of the system to match his misapplication of standing waves to the coil.

I can take the VERY SAME radiator, make no change in coil location at all, and change the current ratio at the start of the inductor and end of the inductor ONLY by changing inductor design. This is with the antenna operated on one frequency, with one coil location, and with the feedpoint at X=0 (resonance).

If your theory about standing waves or the "40 degree replacement" theory is correct, I sould not be able to do that. Yet I can.

I can build a loading coil that has almost no current difference across the length, change nothing else but the coil, and wind up with almost anything I like for current difference.

The reason that happens is displacement current and the fields around the coil. It is not a function of standing waves or the "missing area" the coil replaces.

It takes a lot less than three years of name calling and arguing to measure it, assuming people can channel their energy into doing something besides running around talking about people or arguing.

73 Tom

524. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 16:08:27 UTC
From: w8ji@akorn.net
Message-ID: <1144426107.667057.56500@e56g2000cwe.googlegroups.com>
Source record: 61566

Yuri Blanarovich wrote:
> > A pure inductance would have no current difference at each end. A good
> > compact inductor would have negligible current difference at each end,
> > only a long straight wire would act like the "missing antenna".
>
> More BS, insisting on non-reality.

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For example if the coil is a very large area single turn, it will behave almost like the "missing degrees" you talk about. If it is a compact inductor and has low capacitance to the outside world compared to the antenna above the coil, it will have very little current difference.

> > One way to prove the coil does not replace missing length is to simply
> > move the coil to a new location in a fixed height antenna. If the coil
> > looked like 40 degrees, it would resonate the antenna no matter where
> > it was installed.
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> WRONG, read below, it's the required inductance/impedance and fixed
> "missing" degrees that need replacement.

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> thanks to NM5K posting, about how fixed coil acts different, replaces
> different amount of degrees, it hit me that the reason is the impedance
> presented by the antenna (the straight part) radiator at the coil insertion
> point. Using just as example, radiator having 90 degrees at the resonance,
> with 50 degrees of whip and coil "replacing" 40 degrees in the said example
> from the book.

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You can call it "40 degrees" or anything you like, but you better not think it acts like that missing antenna area so far as phase shift or current difference between ends. It doesn't act that way.

If it DID act the way you seem to be saying, a base loaded antenna
would be a terrible antenna. Yet over a good groundplane with a
reasonable inductor design, they can be very good.

> You agree that impedance along the radiator changes, being low at the
> bottom, around tens of ohms, to being high at the top, around thousands of
> ohms.

I never said that. What do you mean by reactance? The X can be very
high but radiation resistance very low even near the open end.

>Now you place the loading coil along the radiator, one extreme being
> at the bottom, low impedance point - we know in order to maintain the
> resonance of say 13 ft high (long) radiator (90 electrical degrees at
> RESONANCE) the coil has a fewer turns, it's impedance is lower (as required
> by the lower impedance at the bottom end of the antenna), and current drop
> would relatively be small as W7EL proved and everybody knows.

So you admit your "my coil replaces 40 degrees" doesn't work? Or what
are you saying?

> Now you move that coil say half way up the must, to higher impedance point
> at the antenna, and that coil now, in order to maintain the "match" has to
> have higher impedance, more turns and will exhibit MORE current drop across
> it, while replacing THE SAME NUMBER OF "missing" DEGREES AT THE RADIATOR.

So the " 40 degrees" is just a meaningless number. It doesn't mean
anything so far as the coil goes. I'll go along with that.

> Assuming that our goal is to stay with the same physical length of the whip
> (which we do) and maintaining 90 degrees of resonant radiator. So the
> radiator stays 50 degrees ()+50, 10+40, 20+30, 30+20, 40 + 10) long and coil
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of current difference from start to finish the same length of antenna
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the coil to the outside world, I disagree.

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> (inductance) required, more current drop exhibited, coil "replacing" THE
> SAME NUMBER OF 40 DEGREES. It needs more turns, but again, the coil's
> behavior is dictated by the impedance of the RADIATOR (standing waves) at
> the insertion point, dictating the inductance, number of turns of the coil
> in order to maintain the number of degrees, in order to maintain the
> resonance (90 degrees) of the radiator.

The only reason why the inductor could have more "current drop" (what a
concept! current doesn't drop.) is because displacement current from
capacitance can be a larger portion of load impedance. The coil, in
effect, it acting a bit like a tiny "hat" and robbingh the whip above
the coil of current. Some displacement current branches off to the

world around the coil, leaving less to travel upwards.

> In order to "overturn" this "Yuri's Theory" you would have to deny that
> resonant antenna has varying current across its radiator (wire) - to deny
> that current drops from the base to the tip.

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> Deny that in order to maintain the resonant frequency of shortened radiator
> of the same physical length, you need to use coils of varying amount of
> turns depending on its insertion point along the radiator (less on the
> bottom, more closer to the top).
> That behavior of the coil is "FORCED" by the remaining "wires" in the
> radiator, in standing wave environment as Cecil is trying to get through
> with help of Kraus and others.

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I can take the VERY SAME radiator, make no change in coil location at all, and change the current ratio at the start of the inductor and end of the inductor ONLY by changing inductor design. This is with the antenna operated on one frequency, with one coil location, and with the feedpoint at X=0 (resonance).

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I can build a loading coil that has almost no current difference across the length, change nothing else but the coil, and wind up with almost anything I like for current difference.

The reason that happens is displacement current and the fields around the coil. It is not a function of standing waves or the "missing area" the coil replaces.

It takes a lot less than three years of name calling and arguing to measure it, assuming people can channel their energy into doing something besides running around talking about people or arguing.

73 Tom

525. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 16:12:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <DLudnTKE2tFbEqvZnZ2dnUVZ8qCdnZ2d@bt.com>
Source record: 61567

"Cecil Moore" wrote
> Can standing wave current phase be used to determine the
> phase shift through a coil (or through a wire)?
>
==========
Cec and Co.

I couldn't care two hoots about standing waves, whatever they are. As described in this newsgroup it's all just just a load of nonsense.

KISS. And forget all about SWR.

Reg.

526. Re: Balloon lifted wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 16:16:08 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-9FD80D.08161107042006@netnews.worldnet.att.net>
Source record: 61568

In article <twrZf.826$Fl.549@fed1read09>,
N7ZZT - Eric Oyen <n7zzt@127.0.0.1> wrote:

> ok,
> the original poster did not clarify as to which isotope of hydrogen was
> being used. H2 is a stable isotope (and yeah, I do stand corrected on that
> point). Still, the energies required to get 2 protons and 2 electrons to
> get along are fairly high. Hydrogen (H not 1 or 2 or bloody 3...) is very
> small (smaller than helium) and will tend to slip through most materials
> (except for possibly the extremely dense materials such as Polonium).
>
> perhaps in the future, we should be a bit more concise about things like
> this..... now I know that diatomic hydrogen is fairly common in nature (as
> in H2O, CH2 and a few others). I would have to ask a question of some folks
> over at ASU to see what they use for high atmosphere balloons.
>
> --
> DE N7ZZT
> Eric Oyen
> Phoenix, Arizona
> e-mail: n7zzt(at)hotmail(dot)com
> the difference between intelligence and stupidity is that intelligence
> has its limits.

I wonder if you can still remember ANY of your High School Chemistry or
Physics. H2 isn't an Isotope of anything. An Isotope is a chemically
identical atom that has a different number of NEUTRONS than others
of the same Chemical Element. Whether it is Diatomic, multiatonic,
or singular in nature has NO bearing on if it is an Isotope.
Hydrogen has three isotopes.
Hydrogen = One proton and one electron
Detirium = One proton, one neutron, and one electron
Tritium = One proton, two neutrons and one electron

Me a NitroOrganic Chemist, in a previous life

527. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 16:29:57 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <9swZf.56046$F_3.43400@newssvr29.news.prodigy.net>
Source record: 61569

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:
> I couldn't care two hoots about standing waves, whatever they are.

The "experts" have that same problem, Reg, yet they are using
standing wave current phase to try to measure phase shift
through a coil, a known invalid approach since standing wave
current phase doesn't contain any phase information.
--
73, Cecil, W5DXP

528. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 16:42:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <tDwZf.56049$F_3.11861@newssvr29.news.prodigy.net>
Source record: 61570

<w8ji@akorn.net> wrote:
> It is the stray capacitance from the inductor to the outside world that
> allows any difference in current. Not the standing waves, not the
> missing area of antenna.

You are using standing wave current to try to prove your concepts
are valid. If you don't take time to understand standing wave current,
you will never correct those misconceptions.

Standing wave current phase contains no phase information. Therefore,
standing wave current phase cannot be used to measure the phase shift
through a wire or a coil.

The only phase information in a standing wave current is in the
magnitude which roughly follows a cosine function distorted by
the fields in the loading coil.

If the current at the bottom of the coil is 1.0 amps and the current
at the top of the coil is 0.7 amps, the phase shift through the coil
is *roughly* arc-cos(0.7) = ~45 degrees. As Gene Fuller says,
there's no phase information in standing wave current phase.
All the phase information is embedded in the magnitude. That's
easy to see from the I(x,t) = Io*cos(kx)*cos(wt) equation for
standing wave current.

It's also easy to see from: http://www.qsl.net/w5dxp/travstnd.GIF
plotted from EZNEC data.
--
73, Cecil, W5DXP

529. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 17:49:13 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <sCxZf.69704$bn3.54391@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61571

Cecil Moore wrote:
> I've posted the EZNEC results a
> number of times and none of the "experts" have responded.

Cecil,

I wonder why?

Fool me once, shame on you.

Fool me twice, shame on me.

Fool me thrice, what an idiot I must be.

73,
Gene
W4SZ

530. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 17:55:39 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <vlxZf.701559$qk4.491772@bgtnsc05-news.ops.worldnet.att.net>
Source record: 61572

Cecil Moore wrote:

>
> The misconception is about standing wave current VS traveling wave current.
> The "experts" have asserted that "current is current" and that standing wave
> current is the same as traveling wave current even though they have
> different equations.

Cecil,

So how is your study of the NEC documents going?

I learn something new every time I plow through the mathematical discussion. I find current discussed on almost every page, but I am still searching for the part that discusses standing waves and traveling waves. If you could help me find that section it would be appreciated.

73,
Gene
W4SZ

531. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 18:13:24 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <7pad32hah7fjtd00c044p6plb4t7nk6pd1@4ax.com>
Source record: 61573

On 6 Apr 2006 11:06:22 -0500, mcalhoun@ksu.edu wrote:

>I gave a presentation on "How Ham Radio Can Help You in an Emergency"
>to 70 Emergency Management types last week, and the windows in the
>building which hosted the meeting were NOT open-able (so I "made do"
>with an inside VHF antenna and didn't even try to demonstrate HF).
>
>But in emergency/expedient situations, it would be really handy if one
>could pass at HF, say, 100 watts of RF energy through a window (I
>visualize some foil strips and an inductor or two to "tune out" the
>capacitance) to an external antenna.

If the window is sealed, and on something other than the first floor,
how are you going to attach an antenna on the outside? It seems
getting RF through the glass might be the least of your problems.

If it's a hotel, ask for a balcony...

bob
k5qwg

>
>I've been told that the April, 1989, issue of Ham Radio magazine carried
>an article "Easy antenna access for urban apartment dwellers" (for 15
>meters) by Bryan Bergeron, NU1N, starting on page 18.
>
>I'd sure like to read that article; can anyone send me a copy?

532. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 18:17:48 UTC
From: w8ji@akorn.net
Message-ID: <1144433868.856137.150940@z34g2000cwc.googlegroups.com>
Source record: 61574

Gene Fuller wrote:
> Cecil Moore wrote:
>
> >
> > The misconception is about standing wave current VS traveling wave current.
> > The "experts" have asserted that "current is current" and that standing wave
> > current is the same as traveling wave current even though they have
> > different equations.
>
>
> Cecil,
>
> So how is your study of the NEC documents going?
>
> I learn something new every time I plow through the mathematical
> discussion. I find current discussed on almost every page, but I am
> still searching for the part that discusses standing waves and traveling
> waves. If you could help me find that section it would be appreciated.
> 73, Gene W4SZ

Gene,

Don't hold your breath while waiting for Cecil to agree the NEC engine
he uses to prove you can only calculate current by using reflected
waves does not use reflected waves!

I'm still trying to find out why my meter measures standing wave
current and not "real current", or whatever the heck he is saying.

I just made a QSO with Australia and got a 599 and I only used
standing wave current! Imagine how loud I would have been if I used
real current.

73 Tom

533. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 18:19:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <e3yZf.190$Lm5.68@newssvr12.news.prodigy.com>
Source record: 61575

Gene Fuller wrote:
> Cecil Moore wrote:
>
>> I've posted the EZNEC results a
>> number of times and none of the "experts" have responded.
>
> Cecil,
> I wonder why?
> Fool me once, shame on you.
> Fool me twice, shame on me.
> Fool me thrice, what an idiot I must be.

Gene, I don't make fools of the "experts". They do
that to themselves through such statements as
"current is current", implying that standing wave
current is identical to traveling wave current which
you know is NOT the case (thanks for your earlier
posting).

Wouldn't it be better to explain standing wave current
to the "experts" in a private email than attacking me
here for "fooling the experts"? You and I are in
essential agreement. It's the "experts" who use
standing wave current phase to measure phase who
are, in your words above, the "idiots".

Considering a technical discussion to be fooling the
"experts" speaks volumes, doesn't it? And indeed,
Ian said it best. He said something to the effect that
I try to sucker the experts into an argument when I
am right. That says it all and shows why the "experts"
won't engage me when they know that they are wrong.
--
73, Cecil http://www.qsl.net/w5dxp

534. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 18:25:57 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <_4SdneHCEokvM6vZnZ2dnUVZ_sydnZ2d@comcast.com>
Source record: 61376

Reg Edwards wrote:

SNIPPED

> ====================================
> Cec and Co.
>
> I couldn't care two hoots about standing waves, whatever they are. As
> described in this newsgroup it's all just just a load of nonsense.
>
> KISS. And forget all about SWR.
> ----
> Reg.
>
>

Reminds me of an engineer who used to work for me: "The H-LL with VSWR!
I can make anything radiate."

He was close to right!!

535. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 18:26:55 UTC
From: w8ji@akorn.net
Message-ID: <1144434415.541456.187410@z34g2000cwc.googlegroups.com>
Source record: 61377

Cecil Moore wrote:
> You are using standing wave current to try to prove your concepts
> are valid. If you don't take time to understand standing wave current,
> you will never correct those misconceptions.
>
> Standing wave current phase contains no phase information. Therefore,
> standing wave current phase cannot be used to measure the phase shift
> through a wire or a coil.
>
> The only phase information in a standing wave current is in the
> magnitude which roughly follows a cosine function distorted by
> the fields in the loading coil.
>
> If the current at the bottom of the coil is 1.0 amps and the current
> at the top of the coil is 0.7 amps, the phase shift through the coil
> is *roughly* arc-cos(0.7) = ~45 degrees. As Gene Fuller says,
> there's no phase information in standing wave current phase.
> All the phase information is embedded in the magnitude. That's
> easy to see from the I(x,t) = Io*cos(kx)*cos(wt) equation for
> standing wave current.

Cecil,

You can weave a little tidbit of fact into a big misconception or
diversion if you like, but don't expect others to buy into the
misconception.

The current you measure with a clamp on meter or any other reliable
current meter that does not greatly perturb the circuit is the current
that causes radiation, it is the current that causes heating, and it is
the current we would use to calculate power.

The phase of that current is the phase of the current that causes
radiation, heating, and that we would use to calculate patterns.

73 Tom

536. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 18:28:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <vbyZf.199$Lm5.197@newssvr12.news.prodigy.com>
Source record: 61378

Gene Fuller wrote:
> So how is your study of the NEC documents going?

I don't understand it yet. But EZNEC does understand it since
EZNEC reports the correct results for both traveling wave
current and standing wave current. I just downloaded an updated
graphic to http://www.qsl.net/w5dxp/travstnd.GIF but qsl.net
is so unreliable I haven't been able to view it yet.

> I learn something new every time I plow through the mathematical
> discussion. I find current discussed on almost every page, but I am
> still searching for the part that discusses standing waves and traveling
> waves.

Glad you asked, Gene, regarding the cos(kz)*cos(wt) term in a
standing wave:

Gene Fuller, W4SZ wrote:
> In a standing wave antenna problem, such as the one you describe,
> there is no remaining phase information. Any specific phase
> characteristics of the traveling waves died out when the startup
> transients died out.
>
> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be
> seen again.
>
> The only "phase" remaining is the cos (kz) term, which is really an
> amplitude description, not a phase.

One can see from my above graphic that EZNEC indeed does differentiate
between traveling waves and standing waves. So how does EZNEC do that?
EZNEC agrees with your above posting but I don't yet know how it knows.
--
73, Cecil http://www.qsl.net/w5dxp

537. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 18:36:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ZiyZf.261$Lm5.162@newssvr12.news.prodigy.com>
Source record: 61379

w8ji@akorn.net wrote:
> I'm still trying to find out why my meter measures standing wave
> current and not "real current", or whatever the heck he is saying.

It's all explained by the EZNEC data that I have posted half a
dozen times before to which you haveyet to responded. In case
you could possibly have missed it, here it is again:

% along current in current in
wire #2 TravWave.EZ StndWave.EZ

0.28% 0.9998 at -0.99 deg 0.9996 at 0 deg
9.72% 0.9983 at -9.39 deg 0.9843 at -0.03 deg
19.7% 0.9969 at -18.23 deg 0.9454 at -0.05 deg
30.3% 0.9957 at -27.59 deg 0.8843 at -0.06 deg
39.7% 0.9949 at -35.96 deg 0.8023 at -0.08 deg
49.7% 0.9945 at -44.84 deg 0.7014 at -0.09 deg
60.3% 0.9945 at -54.20 deg 0.5840 at -0.09 deg
69.7% 0.9949 at -62.58 deg 0.4528 at -0.10 deg
79.7% 0.9956 at -71.43 deg 0.3110 at -0.11 deg
89.7% 0.9965 at -80.27 deg 0.1616 at -0.11 deg
99.7% 0.9976 at -89.14 deg 0.0061 at -0.11 deg

I have graphed these EZNEC results and they are available at:

http://www.qsl.net/w5dxp/travstnd.GIF

The corresponding EZNEC files are available at:

http://www.qsl.net/w5dxp/TravWave.EZ
http://www.qsl.net/w5dxp/StndWave.EZ

Would you please explain why you are avoiding these results
which expose your misconceptions about standing wave current
unless exposing your misconceptions is what you are avoiding?
--
73, Cecil http://www.qsl.net/w5dxp

538. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 19:04:03 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <DIyZf.320$Lm5.279@newssvr12.news.prodigy.com>
Source record: 61380

w8ji@akorn.net wrote:
> You can weave a little tidbit of fact into a big misconception or
> diversion if you like, but don't expect others to buy into the
> misconception.

When are you going to discuss the technical difference
between I(x,t)=Io*cos(kx+wt) and I(x,t)=Io*cos(kx)*cos(wt)?
The only place those two currents are equal is when x=0. At any
other point, they are virtually opposites of each other. The
differences in those two equations is what led you to believe
the currents at each end of a coil are identical based on
measurements. You guys used a signal, the standing wave current
signal, that is incapable of distinguishing a phase shift even
in a wire, much less in a coil.

> The current you measure with a clamp on meter or any other reliable
> current meter that does not greatly perturb the circuit is the current
> that causes radiation, it is the current that causes heating, and it is
> the current we would use to calculate power.

There's absolutely no argument about that. Both forward waves and
reflected waves radiate so standing waves obviously radiate. Both
forward waves and reflected waves cause I^2*R losses. Stating such
obvious technical facts is a diversion and a waste of words.

> The phase of that current is the phase of the current that causes
> radiation, heating, and that we would use to calculate patterns.

The phase of standing wave current is unchanging. That's why we
get broadside radiation from a 1/2WL standing wave dipole and
end fire radiation from a traveling wave antenna. But again,
stating such obvious technical facts is a diversion and a waste
of words.

When are you going to discuss the actual technical issues?
--
73, Cecil http://www.qsl.net/w5dxp

539. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 19:17:23 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <7VyZf.79$Q92.56@trnddc04>
Source record: 61381

Cecil Moore wrote:
>
> These values reported by EZNEC are graphed at:
>
> http://www.qsl.net/w5dxp/travstnd.GIF

Clicking that URL causes Firefox to report:

"The operation timed out when attempting to contact proxy.qsl.net."

Pasting that URL into Opera causes it to just sit there and do nothing.

I just thought you'd like to know.

Cheers,
John

540. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 19:26:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <J1zZf.323$Lm5.239@newssvr12.news.prodigy.com>
Source record: 61382

John - KD5YI wrote:
> Cecil Moore wrote:
>> These values reported by EZNEC are graphed at:
>> http://www.qsl.net/w5dxp/travstnd.GIF
>
> Clicking that URL causes Firefox to report:
> "The operation timed out when attempting to contact proxy.qsl.net."
> Pasting that URL into Opera causes it to just sit there and do nothing.
> I just thought you'd like to know.

I apologize for qsl.net being so unreliable. Please try again
later. I'm going to get a more reliable web server just as
soon as I get a round tuit.
--
73, Cecil http://www.qsl.net/w5dxp

541. Re: Source cod of program LINE_ZIN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 19:54:57 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <tqgd32lf67s9hpvb4u5vm05sb2smtqc0je@4ax.com>
Source record: 61383

On 6 Apr 2006 23:41:32 -0700, "K7ITM" <k7itm@msn.com> wrote:

>Source cod?? Oh, I hope there's nothing that fishy about it.
>
>(Sorry, Reg, I couldn't resist. Oh, and don't tell George W. about it;
>he's liable to declare war on it.)

King George the W. has already tapped Reg's computer so it's old news.

"Meanwhile in Washington, Attorney General Alberto R. Gonzales
suggested for the first time on Thursday that Bush might have the
legal authority to order wiretapping without a warrant on
communications between Americans that occur exclusively within the
United States.

'I'm not going to rule it out,' Gonzales said at a House Judiciary
Committee hearing." (NY Times)

Just think, our ham conversations might be more secure than talking on
the telephone.[g]

542. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 19:56:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123dgvmajb4ihd5@corp.supernews.com>
Source record: 61384

Yuri Blanarovich wrote:
> Roy,
> please see my other posting, otherwise, I really promise to do the step by
> step article, which will try to explain, correlate real life measurements
> and modeling and present the comprehensive case of current being different
> across antenna loading coils. Will do that with cooperation of other
> "defenders" that contributed to "our" cause. There is no point of going back
> and forth on tangents. We will measure, show the reality and then apply some
> theory, explanation and summary of what is going on.
> I hope it will correct misconceptions, provide better understanding and
> benefit in proper modeling and design of loaded antenna elements and
> systems.
> Otherwise, I think we have reached point, when it is pointless to go around
> in circles and argue that what IS, CAN'T BE, because.....

Before you get too carried away, look back in this thread where Cecil posted a URL to his web site where he had an EZNEC (helical wire) model of a coil at the base of a short whip. It showed significant current drop from the bottom to the top, although no significant phase shift. I replaced the whip part of the antenna with a wire directly to ground from the top of the coil which contained a lumped RC to substitute for the whip's impedance. The drop across the coil remained the same. So in the course of developing your theory, you should explain why this happens, since there are no longer the traveling and standing waves which were on the whip. This model was, and still is, posted on my web site. Then, to illustrate that the current drop from bottom to top is due to shunt C, I removed the ground in the model, converting the model to free space. I connected the bottom of the coil to the bottom of the new wire with a wire instead of via the ground connection. The current drop from bottom to top of the coil disappeared. (There's still a minor difference due to several factors I mentioned in my posting.)

The fact that the current drop is the same for an antenna and for a lumped circuit with the same impedance was also verified by measurements I made and posted over a year ago.

Those model results are consistent with what I, Tom, and others have been saying, and consistent with classical, known, circuit theory. They aren't consistent at all with all this standing wave - traveling wave - antenna replacement business. I've looked very carefully at the models and concluded that EZNEC is operating well within its capabilities, so the results are valid.

So for starters, why don't you explain how your theory fits with the existing model results? Why is the current drop the same with an antenna

and for a lumped circuit? Why does removing ground make the current drop go away? Why is there no significant phase shift in current from bottom to top? Conventional theory can explain this. Can yours?

As for your promise to write the article, I have to point out that you've made this promise before without delivering. So I'm not exactly holding my breath waiting for it. I'm sure it'll make interesting reading, though, and it's a revolutionary enough theory that the IEEE, or at the very least QEX, should be happy to publish it when it's finally complete.

Roy Lewallen, W7EL

543. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 20:06:23 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <3DzZf.337$Lm5.194@newssvr12.news.prodigy.com>
Source record: 61385

Roy Lewallen wrote:
> Before you get too carried away, look back in this thread where Cecil
> posted a URL to his web site where he had an EZNEC (helical wire) model
> of a coil at the base of a short whip. It showed significant current
> drop from the bottom to the top, although no significant phase shift.

It showed a 10 degree phase shift. I've always said the phase
shift is what it is but it is NOT zero. 10 degrees is definitely
NOT zero even though you measured zero degrees shift. Wonder what
was wrong with your measurements?

> So in
> the course of developing your theory, you should explain why this
> happens, since there are no longer the traveling and standing waves
> which were on the whip.

Oh my, Roy, are you saying that zero ohms doesn't cause a reflection?
If so, your misconceptions are worse than I thought. A short to ground
causes exactly the same total reflection as an open-circuit, just with
different phases. I would have expected you to realize that.

> I've looked very carefully at the models
> and concluded that EZNEC is operating well within its capabilities, so
> the results are valid.

Yes, they are and they shoot down your argument. Please explain
the results posted at: http://www.qsl.net/w5dxp/travstnd.GIF

> So for starters, why don't you explain how your theory fits with the
> existing model results?

You first, Roy, since you disagree with EZNEC.
--
73, Cecil http://www.qsl.net/w5dxp

544. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 21:38:40 UTC
From: w8ji@akorn.net
Message-ID: <1144445920.345719.251460@u72g2000cwu.googlegroups.com>
Source record: 61386

W8JI Wrote:
> > The current you measure with a clamp on meter or any other reliable
> > current meter that does not greatly perturb the circuit is the current
> > that causes radiation, it is the current that causes heating, and it is
> > the current we would use to calculate power.

Cecil Moore wrote:
> There's absolutely no argument about that. Both forward waves and
> reflected waves radiate so standing waves obviously radiate. Both
> forward waves and reflected waves cause I^2*R losses. Stating such
> obvious technical facts is a diversion and a waste of words.

Cecil,

Please humor all of us.

You now seem to agree the current we measure, which is the current that causes radiation, causes heating, and that we can use to determine phase or power levels is what Roy, I, and a dozen others have been saying.

So what exactly is the importance of this current YOU are talking about? Since it does not cause radiation, does not cause heat, and does not determine phase....exactly what does it do?

73 Tom

545. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 21:58:33 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <dgBZf.70270$bn3.39442@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61387

Cecil Moore wrote:

> Please explain the results posted at: http://www.qsl.net/w5dxp/travstnd.GIF

Cecil,

You may believe it is obvious, but it is not quite clear what you are trying to show in that figure. On the left side, traveling wave, it appears that "magnitude" means Io. On the right side, standing wave, it appears that "magnitude" means Io cos(kx).

The gist of your position seems to be that somehow the traveling wave is more powerful, or at least different, since the area under the current magnitude curve is larger. In reality, however, it is necessary to pick a single time at which to compare the two cases. It is of little value to look at some sort of overall envelope for the traveling wave. The correct magnitude of the traveling wave never has the shape of the overall envelope. Pick a single time, say when wt is equal to zero or equal to pi. Then compare the curves. In fact, if you pick any single time for the left side the resulting curve shape will look a lot like the right side.

73,
Gene
W4SZ

546. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 22:42:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123dqlsa28671b3@corp.supernews.com>
Source record: 61388

w8ji@akorn.net wrote:
>
> W8JI Wrote:
>>> The current you measure with a clamp on meter or any other reliable
>>> current meter that does not greatly perturb the circuit is the current
>>> that causes radiation, it is the current that causes heating, and it is
>>> the current we would use to calculate power.
>
> Cecil Moore wrote:
>> There's absolutely no argument about that. Both forward waves and
>> reflected waves radiate so standing waves obviously radiate. Both
>> forward waves and reflected waves cause I^2*R losses. Stating such
>> obvious technical facts is a diversion and a waste of words.
>
> Cecil,
>
> Please humor all of us.
>
> You now seem to agree the current we measure, which is the current that
> causes radiation, causes heating, and that we can use to determine
> phase or power levels is what Roy, I, and a dozen others have been
> saying.
>
> So what exactly is the importance of this current YOU are talking
> about? Since it does not cause radiation, does not cause heat, and does
> not determine phase....exactly what does it do?
>
> 73 Tom

Be careful. While we can split a current into traveling wave components, separately calculate the resulting voltages, currents, and field strengths, then add the results to get the total (which is identical to the result of calculating those quantities directly from the total current), we can't do this with power, power density, or heating. If we have two traveling current waves which sum to zero at some point, the total current at that point is zero and the I^2*R loss caused by that current is zero -- regardless of how large the traveling wave currents are. It's not the sum of the heating which would have been caused by each traveling wave independently.

Likewise, we can calculate field strength (E or H) separately from traveling wave components if we so desire (although I can't think of any reason why anyone would want to), then sum the field strengths to get the total. The result will be identical to the field strength calculated directly from the total current as is done by NEC and EZNEC. And you can

calculate a radiated power density from the total field strength. But you can't calculate a radiated power density from each traveling wave component and sum them to get the total power density. Doing so violates the requirements for superposition, and you'll get the wrong answer if you try.

Roy Lewallen, W7EL

547. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 23:48:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ITCZf.68026$dW3.52300@newssvr21.news.prodigy.com>
Source record: 61389

w8ji@akorn.net wrote:
> So what exactly is the importance of this current YOU are talking
> about?

All the diversionary BS trimmed from your posting. Bottom line,
the equation for standing wave current is:

I(x,t) = Io*cos(kx)*cos(wt)

The equation for traveling wave current is:

I(x,t) = Io*cos(ks+wt)

Since you obviously don't comprehend the difference, please
dust off your old math book and take a look.

In case you need a graphics reference for those two equations,
you can find it at: http://www.qsl.net/w5dxp/travstnd.GIF

You will find the two above currents are virtually opposites
of each other.

In particular, standing wave current phase CANNOT be used to
determine the phase shift through a wire or through a coil
because its phase never changes in a 1/4WL monopole.

I can hardly say it better than Gene Fuller who said:
Regarding the cos(kz)*cos(wt) term in a standing wave:

> Gene Fuller, W4SZ wrote:
>> In a standing wave antenna problem, such as the one you describe, there is no
>> remaining phase information. Any specific phase characteristics of the traveling
>> waves died out when the startup transients died out.
>>
>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen again.
>>
>> The only "phase" remaining is the cos (kz) term, which is really an amplitude
>> description, not a phase.

Please tell us what it is about Gene's posting that you don't
understand.
--
73, Cecil http://www.qsl.net/w5dxp

548. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-07 23:53:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0YCZf.68027$dW3.47946@newssvr21.news.prodigy.com>
Source record: 61390

Gene Fuller wrote:
> You may believe it is obvious, but it is not quite clear what you are
> trying to show in that figure. On the left side, traveling wave, it
> appears that "magnitude" means Io. On the right side, standing wave, it
> appears that "magnitude" means Io cos(kx).

No, both plots are for I(x,t). The magnitude of the traveling wave
current is constant while the phase changes with 'x'. The phase of
the standing wave current is constant while the magnitude changes
with 'x'. They are virtually opposites of each other.

> It is of little value
> to look at some sort of overall envelope for the traveling wave.

Both currents are phasor RMS values along with their phases.

I am reporting *exactly* what EZNEC reports. If you don't like
that, talk W7EL into reporting something different.
--
73, Cecil http://www.qsl.net/w5dxp

549. Re: Given my restrictions, how can I improve my HF antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 00:17:34 UTC
From: ml <m@di.net>
Message-ID: <m-63D355.20173007042006@news.verizon.net>
Source record: 61391

In article <123bunsakbdii6f@corp.supernews.com>,
dplatt@radagast.org (Dave Platt) wrote:

> In article <Thomas.anonymous.25vjn9@news.radiobanter.com>,
> Thomas anonymous <Thomas.anonymous.25vjn9@news.radiobanter.com> wrote:
>
> >I'm renting a basement suite and have an Icom 706mkII & MFJ-949E antenna
> >tuner, and I need a better HF antenna arrangement than I already have
> >(without going to a tower, hi). I would like to run a balanced
> >feedline from the tuner to the feedpoint but the feedline has to go
> >from my shack to where the feedpoint is, and that involves crossing a
> >cement path --- in other words, because the feedline has to lie on top
> >of cement it can't really be anything other than coax.
>
> You could make up a section of shielded balanced line, to get the feed
> across the cement without having it couple messily into the ground.
>
> A shielded balanced line can be made from two equal-length runs of
> coax cable. RG-6 would work; aluminum-jacketed cable-TV hardline
> might be even better from an electrical standpoint although its
> rigidity might be inconvenient. Connect the shields/braids of the two
> sections of coax together at each end, use the center conductors
> to carry the signal, and fasten the two coaxes together in some
> convenient fashion (an occasional nylon wire-tie would do, I believe).
>
> The impedance of such a line will be twice that of the individual
> pieces of coax - i.e. 150 ohms if you use RG-6. No need to worry
> about matching it to the rest of the balanced feedline. You can use
> 300 or 450 or 600-ohm (nominal) balanced line where convenient, to
> keep the losses as low as practical, and this 150-ohm shielded
> balanced pair where necessary. The losses should be acceptable, and
> will certainly be less than if you plumbed the whole distance with 50-
> or 75-ohm coax.

perhaps just making a wood board or somthing to fill a few inches and
cut to allow the window to close on it, w/foam too and drill a hole in
the wood to pass the wire and have it centered enought away on all
sides from metal then it dosn't disturbe or damage the building/window
etc

550. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 00:35:37 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <123e1b1ntsbm27e@corp.supernews.com>
Source record: 61392

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> So what exactly is the importance of this current YOU are talking
>> about?
>
>
> All the diversionary BS trimmed from your posting. Bottom line,
> the equation for standing wave current is:
>
> I(x,t) = Io*cos(kx)*cos(wt)
>
> The equation for traveling wave current is:
>
> I(x,t) = Io*cos(ks+wt)
>
> Since you obviously don't comprehend the difference, please
> dust off your old math book and take a look.
>
> In case you need a graphics reference for those two equations,
> you can find it at: http://www.qsl.net/w5dxp/travstnd.GIF
>
> You will find the two above currents are virtually opposites
> of each other.
>
> In particular, standing wave current phase CANNOT be used to
> determine the phase shift through a wire or through a coil
> because its phase never changes in a 1/4WL monopole.
>
> I can hardly say it better than Gene Fuller who said:
> Regarding the cos(kz)*cos(wt) term in a standing wave:
>
>> Gene Fuller, W4SZ wrote:
>>
>>> In a standing wave antenna problem, such as the one you describe,
>>> there is no remaining phase information. Any specific phase
>>> characteristics of the traveling waves died out when the startup
>>> transients died out.
>>>
>>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen
>>> again.
>>>
>>> The only "phase" remaining is the cos (kz) term, which is really an
>>> amplitude description, not a phase.

>
>
> Please tell us what it is about Gene's posting that you don't
> understand.

Cec;

Please answer the man's question. Don't prevaricate. Don't deviate.
Answer the damn question.

Except for this particular subject I have great admiration for you
knowledge and have learned from you. This subject seems to be your
bugaboo. I have completely lost track of what the object of the exercise is.

Dave N

Dave N

551. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 00:47:17 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <pKDZf.703232$qk4.252036@bgtnsc05-news.ops.worldnet.att.net>
Source record: 61393

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> You may believe it is obvious, but it is not quite clear what you are
>> trying to show in that figure. On the left side, traveling wave, it
>> appears that "magnitude" means Io. On the right side, standing wave,
>> it appears that "magnitude" means Io cos(kx).
>
>
> No, both plots are for I(x,t). The magnitude of the traveling wave
> current is constant while the phase changes with 'x'. The phase of
> the standing wave current is constant while the magnitude changes
> with 'x'. They are virtually opposites of each other.
>
>> It is of little value to look at some sort of overall envelope for the
>> traveling wave.
>
>
> Both currents are phasor RMS values along with their phases.
>
> I am reporting *exactly* what EZNEC reports. If you don't like
> that, talk W7EL into reporting something different.

Cecil,

Perhaps I was not clear. I understand the plots, and I have no question
that they show what EZNEC provides.

My question is why you feel there is anything of significance or
anything for the "gurus" to ponder.

As I explained, the curves are mostly a comparison of apples to oranges.
One (standing wave) shows the peak current at when the cos(wt) factor is
at a maximum. The other (traveling wave) shows the envelope of all the
current shapes over time. They are really two different entities, and
they have virtually no application to the topic featured in the past
17,000 messages.

What you call the "magnitude" of the traveling wave never actually
represents the current over the length of wire at any point in time.

73,
Gene
W4SZ

552. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 00:48:58 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4437087a$0$1018$39cecf19@news.twtelecom.net>
Source record: 61394

Roy Lewallen wrote:

> So for starters, why don't you explain how your theory fits with the
> existing model results? Why is the current drop the same with an antenna
> and for a lumped circuit? Why does removing ground make the current drop
> go away? Why is there no significant phase shift in current from bottom
> to top? Conventional theory can explain this. Can yours?
>
> As for your promise to write the article, I have to point out that
> you've made this promise before without delivering. So I'm not exactly
> holding my breath waiting for it. I'm sure it'll make interesting
> reading, though, and it's a revolutionary enough theory that the IEEE,
> or at the very least QEX, should be happy to publish it when it's
> finally complete.
>
> Roy Lewallen, W7EL

Roy, I will make you a bet. Lunch, if you might be at Central States this year.

Not Gonna Happen.

They are not interested in reality. They are not interested in engineering. They do not want to understand physics, or they are not capable. It matters not.

I have been watching, and reading, and would like to see you, and the others, stop beating a very dead horse. Cecil and Yuri will never get it.

Tom
K0TAR

553. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 00:49:23 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <nMDZf.9259$4L1.1415@newssvr11.news.prodigy.com>
Source record: 61395

Gene Fuller wrote:
> You may believe it is obvious, but it is not quite clear what you are
> trying to show in that figure.

Gene, I previously responded in words that I thought you would understand, based on your previous understanding. It occurred to me during my walk that not every reader is an engineer, not every engineer is a EE, and not every EE also has a math degree.

Here it is in easier to understand terms. Given the 1/4WL conductor and the web page at:

http://www.qsl.net/w5dxp/travstnd.GIF

The way to measure phase shift through a wire carrying the traveling wave current is to put a current probe at location A and location B, and measure the phase shift between those two equal magnitude sine waves. If a coil exists in the circuit, that would also be the way to get a rough measure of the phase shift across the coil.

Example: The phase shift from 30% to 60% in the traveling wave antenna is taken from the tabular data as 54.2-27.6 = 26.6 degrees.

The phase information is in the *phase* in a traveling wave.

For the standing wave current, the situation is completely different. The phase measured between any two current probes will always be zero. The phase of a standing wave current is useless for measuring phase shift. The way to extract the phase information is to measure the *amplitude* at two points and then calculate the phase shift by taking the arc-cos of the normalized amplitude.

Example: The phase shift from 30% to 60% in the standing wave antenna is arc-cos(0.8843) - arc-cos(0.5840) = 26.5 degrees.

The phase information is in the *amplitude* in a standing wave.

Thus in both antennas, the phase shift in 30 percent of the wire is about 27 degrees. (90*.3 = 27) If we had a coil installed in that 30 degrees of the antenna instead of a wire, the same concepts would apply.
--
73, Cecil http://www.qsl.net/w5dxp

554. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 00:56:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <1TDZf.9260$4L1.170@newssvr11.news.prodigy.com>
Source record: 61396

David G. Nagel wrote:
> Please answer the man's question. Don't prevaricate. Don't deviate.
> Answer the damn question.

Maybe one of my other postings answers the question for you.
I'm not prevaricating or deviating. I'm answering the questions
to the best of my ability. Gene's posting is one of the best
answers to Tom's questions that I have seen. Gene says there is
ZERO information in standing wave phase. I agree with Gene.

> Except for this particular subject I have great admiration for you
> knowledge and have learned from you. This subject seems to be your
> bugaboo. I have completely lost track of what the object of the exercise
> is.

The object of the exercise is to prove that standing wave current
phase cannot be used to measure the phase through a wire or coil
or anything else. The phase of a standing wave is already known
and is unchanging. The only phase information in a standing wave
current is contained in the amplitude.
--
73, Cecil http://www.qsl.net/w5dxp

555. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 00:57:08 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44370a64$0$1018$39cecf19@news.twtelecom.net>
Source record: 61397

Roy Lewallen wrote:

> So for starters, why don't you explain how your theory fits with the
> existing model results? Why is the current drop the same with an antenna
> and for a lumped circuit? Why does removing ground make the current drop
> go away? Why is there no significant phase shift in current from bottom
> to top? Conventional theory can explain this. Can yours?
>
> As for your promise to write the article, I have to point out that
> you've made this promise before without delivering. So I'm not exactly
> holding my breath waiting for it. I'm sure it'll make interesting
> reading, though, and it's a revolutionary enough theory that the IEEE,
> or at the very least QEX, should be happy to publish it when it's
> finally complete.
>
> Roy Lewallen, W7EL

Sorry, I forgot to mention that they also don't appear to understand
math, or the fact that "complex numbers" are quite simple if you went to
engineering school and own an HP15 calculator. Mine still works fine.

If you had trouble with the previous statement, Cecil and Yuri, I meant
that your "phasor" math is trivial. At best 2nd year engineering. And
yes, we do understand it. A lot more than you do apparently.

tom
K0TAR

556. Re: Thin & Fat Yagis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 00:59:47 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44370B03.2070702@fuse.net>
Source record: 61398

west wrote:
> Take 2 Yagis or verticals built with aluminum tubing. Both are identical
> except the tubing in one is twice the diameter of the other. Besides size,
> what will the property differences be between the two? Will they load up
> the same? I don't mean to be flippant, but this question has been on my
> mind for a long time and I couldn't find the answer. All comments
> appreciated. Thank you.
>
> 73's, west
> AF4GC
>
>
If I'm not mistaken (a dubious assumption), I seem to remember that
"fatter" elements produce wider bandwidths (i.e., lower SWR over greater
range of frequency).

If this is not the case, please correct me.

John
AB8WH

557. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 01:00:50 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <6XDZf.9261$4L1.5262@newssvr11.news.prodigy.com>
Source record: 61399

Gene Fuller wrote:
> My question is why you feel there is anything of significance or
> anything for the "gurus" to ponder.

Hopefully, I answered that question in my other posting. If one wants to measure phase shift using a traveling wave current, one measures the phase shift between two points.

If one wants to measure the phase shift using a standing wave current, one measures the amplitudes at two points and subtracts the arc-cosines of the normalized amplitude values.

You said essentially the same thing in your earlier posting - that there is no phase information in the standing wave current phase and all the phase information is in the amplitude values.
--
73, Cecil http://www.qsl.net/w5dxp

558. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 01:05:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <R%DZf.9263$4L1.2967@newssvr11.news.prodigy.com>
Source record: 61400

Tom Ring wrote:
> They are not interested in reality. They are not interested in
> engineering. They do not want to understand physics, or they are not
> capable. It matters not.

You are, of course, talking about QEX.

Tom, maybe you can explain how to use standing wave current phase
to measure the phase shift through a wire? If you can, I would
really appreciate it.
--
73, Cecil http://www.qsl.net/w5dxp

559. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 01:16:23 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <H9EZf.9266$4L1.1529@newssvr11.news.prodigy.com>
Source record: 61401

Tom Ring wrote:
> If you had trouble with the previous statement, Cecil and Yuri, I meant
> that your "phasor" math is trivial. At best 2nd year engineering. And
> yes, we do understand it. A lot more than you do apparently.

Well then, please prove W8JI's assertion that "current is current",
i.e. that cos(kx+wt) = cos(kx)*cos(wt) at every point up and down
the wire. That should be "trivial" for you.

If you cannot prove that, please explain to us how and why
standing wave current is different from traveling wave current.
(That's what I have been doing.)

During your explanation of the difference, you will realize why
W7EL's standing wave phase measurements are meaningless - that
there is no phase information in standing wave current phase.
As Gene said, all the phase information is in the standing wave
current *amplitude*, not in the phase.
--
73, Cecil http://www.qsl.net/w5dxp

560. Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 01:22:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <EtCdndvtWbAWjarZRVnyrg@bt.com>
Source record: 61402

Before somebody tells me there's something wrong with programs
LINE_ZIN and INPUT_Z I'd better put in a few words of explanation.

First of all there's nothing wrong with the programs. Both are
correct.

They both calculate the reflection coefficient Gamma for a given line
and given load impedance at a given frequency. One does it for coaxial
lines and the other for balanced-twin and open-wire lines.

But, believe it or not, under certain load conditions the reflection
coefficient Gamma can exceed unity. Indeed, at a sufficiently low
frequency, Gamma can approach 1+Sqrt(2) = 2.414

With program LINE_ZIN enter the following -

Freq = 0.2 MHz
Conductor diameter = 0.2 mm
Conductor spacing = 10 mm
Line length = 119.25 metres
Velocity factor = 1.00
Load resistance = 0.00 ohms
Load reactance = + 552.6 ohms

From which we get -

Zo = 552.6 ohms
Gamma = 1.084
Angle of Gamma = -90.0 degrees
SWR at load end = 24.8
SWR at input end = Infinity

With program INPUT_Z enter the following -

Frequ = 0.2 MHz
Zo = 50 ohms
Line length = 100 metres
Inner conductor diameter = 0.73 mm (RG-58)
Velocity factor = 0.66
Load resistance = 0.00 ohms
Load reactance = +50.00 ohms

From which we get -

Gamma = 1.109
Angle of Gamma = -90.0 degrees
SWR at load end = 19.3

The reason for the abnormally high values of Gamma, and the SWR at the input end being higher than the SWR at the load end, is that the line impedance Zo is not purely resistive. It has a negative angle. Zo = Ro - jXo.

There is a resonance between -jXo and + jXload which causes the reflected wave to be greater than the incident wave. Hence Gamma exceeds unity. The effect is not present when jXload is negative.

Gamma has a maximum value when +Xload = Zo as can be found by varying Xload on either side of Zo.

At some distance back from the load the extraordinary high value of SWR occurs (as demonstrated with program LINE_ZIN) due to that point taking the place of the end of the line when Zo is purely resistive.

The true value of Zo = Ro+jXo can be found by making the line long enough such that attenuation exceeds about 35 or 40 dB. Line input impedance is then becomes equal to Zo.

It is the fact that Zo is never purely resistive which causes errors when using the Smith Chart. Errors which the user can be entirely unaware of. Coax lines are more prone to error than higher impedance balanced-twin lines.

The reason why both programs stop at 200 KHz has nothing to do with the foregoing. It is due to skin effect not being fully operative at lower frequencies which complicates calculations.
There are other programs which go down to audio and power frequencies.

Reg, G4FGQ

561. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 01:34:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <JqEZf.9270$4L1.2237@newssvr11.news.prodigy.com>
Source record: 61403

Reg Edwards wrote:
> But, believe it or not, under certain load conditions the reflection
> coefficient Gamma can exceed unity. Indeed, at a sufficiently low
> frequency, Gamma can approach 1+Sqrt(2) = 2.414

That agrees with Chipman who says it only occurs in lossy lines.
--
73, Cecil http://www.qsl.net/w5dxp

562. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 01:35:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <GsednU6RWYgQjqrZRVny3w@bt.com>
Source record: 61404

"David G. Nagel" wrote
>I have completely lost track of what the object of the exercise is.
>
==========

I gave up trying just after the thread began.

What put me off was "current across the coil" when everybody knows it
should be "current through the coil".

It is VOLTS which appear ACROSS coils.

Reg.

563. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 01:52:44 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <18KdnZLoy_I0iqrZnZ2dnUVZ8qOdnZ2d@bt.com>
Source record: 61405

"Cecil Moore" wrote
> That agrees with Chipman who says it only occurs in lossy lines.
==========
Didn't you know ALL real lines are lossy?

Still, I'm pleased to hear Chipman agrees with me.

Reg.

564. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 02:16:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123e77gn5kljfb5@corp.supernews.com>
Source record: 61406

Tom Ring wrote:
>
> Roy, I will make you a bet. Lunch, if you might be at Central States
> this year.

Are you kidding? With odds about the same as winning the lottery?

> Not Gonna Happen.
>
> They are not interested in reality. They are not interested in
> engineering. They do not want to understand physics, or they are not
> capable. It matters not.
>
> I have been watching, and reading, and would like to see you, and the
> others, stop beating a very dead horse. Cecil and Yuri will never get it.

Oh, I know all that.

I'm not posting in an attempt to educate Cecil and Yuri or to change their minds -- it became evident years ago that's a waste of time. The only reason I bother is in the hopes that it'll play some part in preventing some of the lurkers from getting sucked in by the flurry of informed-sounding but demonstrably wrong arguments which continue to come from those folks. It's hard to say if it's having any effect, but I think it's important to present a point of view supported by established theory, modeling, and measurement results which are all in agreement rather than letting the pseudo-science stand alone as apparent fact.

Roy Lewallen, W7EL

565. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 02:18:31 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <123e7bvrpae5c16@corp.supernews.com>
Source record: 61407

Reg Edwards wrote:
> "David G. Nagel" wrote
>
>>I have completely lost track of what the object of the exercise is.
>>
>
> ====================================
>
> I gave up trying just after the thread began.
>
> What put me off was "current across the coil" when everybody knows it
> should be "current through the coil".
>
> It is VOLTS which appear ACROSS coils.
> ----
> Reg.
>
>
evidently Cecil doesn't.

Dave

566. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 02:26:07 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <3bFZf.703615$qk4.163958@bgtnsc05-news.ops.worldnet.att.net>
Source record: 61408

Cecil,

I thought you denounced and denied this "concept" earlier today.

73,
Gene
W4SZ

Cecil Moore wrote:
If we had a coil installed
> in that 30 degrees of the antenna instead of a wire, the same
> concepts would apply.

567. Re: Given my restrictions, how can I improve my HF antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 03:03:25 UTC
From: RB <rbig@bellsouth.nospam.net>
Message-ID: <BHFZf.270$zh1.83@bignews1.bellsouth.net>
Source record: 61409

Tunnel under the sidewalk and run coax through a pvc pipe to your antenna?
Sidewalk tunnelling is relatively easy with a "wand" and hose.

568. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 03:28:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <H5GZf.9283$4L1.2190@newssvr11.news.prodigy.com>
Source record: 61410

Roy Lewallen wrote:
> The
> only reason I bother is in the hopes that it'll play some part in
> preventing some of the lurkers from getting sucked in by the flurry of
> informed-sounding but demonstrably wrong arguments which continue to
> come from those folks.

Roy, it is demonstrably wrong to try to use standing wave current
phase to measure the delay through a coil. Anyone, including you,
who says it is a valid procedure is either ignorant or trying to
hoodwink the lurkers.
--
73, Cecil http://www.qsl.net/w5dxp

569. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 03:32:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <y9GZf.9284$4L1.2275@newssvr11.news.prodigy.com>
Source record: 61411

Gene Fuller wrote:
> I thought you denounced and denied this "concept" earlier today.

Guess you misunderstood. A coil can replace 30 degrees of
an antenna but it won't use the same amount of wire as
30 degrees of wire. What I said is that an inductor is
more efficient than linear loading.
--
73, Cecil http://www.qsl.net/w5dxp

570. Re: Fiber Glass (shell) vs Metal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 03:43:34 UTC
From: Bob <warthog9@pacbell.net>
Message-ID: <GjGZf.9288$4L1.3531@newssvr11.news.prodigy.com>
Source record: 61412

This will not answer your question but it is amusing. This guy claims
his SS replacement top section for fiberglass antennas gives you 2dB
gain and a lot of other BS. See:
http://cgi.ebay.com/BASE-ANTENNA-UPGRADE-REALLY-WORKS_W0QQitemZ9709206755QQcategoryZ1501QQ
ssPageNameZWDVWQQrdZ1QQcmdZViewItem
ï¿½PRINCIPLE EXPLANATION... THIS UNIT IS A STAINLESS STEEL TOP SECTION
THAT SCREWS INTO THE TOP SECTION OF YOUR EXISTING FIBERGLASS BASE
ANTENNA, AND IT IS A PROVEN FACT STEEL ANTENNAS OUT PREFORM FIBERGLASS
IT ALSO HAS A METAL HELIX COIL TO INCREASE RECIEVE .. THIS UNIT HAS A
LOAD IN IT VERSES YOUR TOP SECTION THAT DOESNT HAVE A LOAD THIS
INCREASES TRANSMIT POWER BY DRAWING POWER TO THE TOP LOAD....ï¿½
Ooh, donï¿½t question him, heï¿½s a broadcast engineer! Ha!
Bob

Myles Byrne wrote:
> Been looking for a used 2 mtr ant. - was reading some comments about
> Fiber Glass and Lightning - Someone said "Fiber Glass to lightning is
> like a trailer park to a tornado" - "It's all metal on the inside" -
> So, is there something to the comment ?
>

571. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 03:43:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <XjGZf.9289$4L1.5858@newssvr11.news.prodigy.com>
Source record: 61413

David G. Nagel wrote:
> evidently Cecil doesn't.

It wasn't me who started this thread.

If we have one amp of DC current flowing one direction and
one amp of DC current flowing the other direction, which
direction is the sum of those currents flowing?

If we have one amp of forward RF current and one amp of
reflected RF current, which direction is the sum of those
currents flowing?
--
73, Cecil http://www.qsl.net/w5dxp

572. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 03:54:32 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <YtGZf.13642$tN3.4147@newssvr27.news.prodigy.net>
Source record: 61414

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> So what exactly is the importance of this current YOU are talking
>> about?
>
>
> All the diversionary BS trimmed from your posting. Bottom line,
> the equation for standing wave current is:
>
> I(x,t) = Io*cos(kx)*cos(wt)
>
> The equation for traveling wave current is:
>
> I(x,t) = Io*cos(ks+wt)
>
> Since you obviously don't comprehend the difference, please
> dust off your old math book and take a look.
>
> In case you need a graphics reference for those two equations,
> you can find it at: http://www.qsl.net/w5dxp/travstnd.GIF
>
> You will find the two above currents are virtually opposites
> of each other.
>
> In particular, standing wave current phase CANNOT be used to
> determine the phase shift through a wire or through a coil
> because its phase never changes in a 1/4WL monopole.
>
> I can hardly say it better than Gene Fuller who said:
> Regarding the cos(kz)*cos(wt) term in a standing wave:
>
>> Gene Fuller, W4SZ wrote:
>>
>>> In a standing wave antenna problem, such as the one you describe,
>>> there is no remaining phase information. Any specific phase
>>> characteristics of the traveling waves died out when the startup
>>> transients died out.
>>>
>>> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be seen
>>> again.
>>>
>>> The only "phase" remaining is the cos (kz) term, which is really an
>>> amplitude description, not a phase.

>
>
> Please tell us what it is about Gene's posting that you don't
> understand.

You know, Cecil, a pulse train also satisfies the wave equation.
Why are you married to sinusoidal waves? Haven't you ever seen
ghosts on a tv picture? What do those Ghosts represent?
73,
Tom Donaly, KA6RUH

573. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 04:03:36 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <sCGZf.13646$tN3.11740@newssvr27.news.prodigy.net>
Source record: 61415

Reg Edwards wrote:

> "David G. Nagel" wrote
>
>>I have completely lost track of what the object of the exercise is.
>>
>
> ====================================
>
> I gave up trying just after the thread began.
>
> What put me off was "current across the coil" when everybody knows it
> should be "current through the coil".
>
> It is VOLTS which appear ACROSS coils.
> ----
> Reg.
>
>

They also like to talk about "current drops" when they mean the
difference in current amplitude at two different points.
73,
Tom Donaly, KA6RUH

574. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 04:04:39 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <123edj2nda7oe1@corp.supernews.com>
Source record: 61416

Cecil Moore wrote:
> David G. Nagel wrote:
>
>> evidently Cecil doesn't.
>
>
> It wasn't me who started this thread.
>
> If we have one amp of DC current flowing one direction and
> one amp of DC current flowing the other direction, which
> direction is the sum of those currents flowing?
>
> If we have one amp of forward RF current and one amp of
> reflected RF current, which direction is the sum of those
> currents flowing?

I was taught that under these circumstances DC and RF work differently.
Yes your DC net current is zero. Your new RF current is one amp in each
direction.

Dave WD9BDZ

575. Re: Fiber Glass (shell) vs Metal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 04:07:44 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <123edoqa7b1ag2c@corp.supernews.com>
Source record: 61417

Bob wrote:

> This will not answer your question but it is amusing. This guy claims
> his SS replacement top section for fiberglass antennas gives you 2dB
> gain and a lot of other BS. See:
> http://cgi.ebay.com/BASE-ANTENNA-UPGRADE-REALLY-WORKS_W0QQitemZ9709206755QQcategoryZ1501
QQssPageNameZWDVWQQrdZ1QQcmdZViewItem
>
> ï¿½PRINCIPLE EXPLANATION... THIS UNIT IS A STAINLESS STEEL TOP SECTION
> THAT SCREWS INTO THE TOP SECTION OF YOUR EXISTING FIBERGLASS BASE
> ANTENNA, AND IT IS A PROVEN FACT STEEL ANTENNAS OUT PREFORM FIBERGLASS
> IT ALSO HAS A METAL HELIX COIL TO INCREASE RECIEVE .. THIS UNIT HAS A
> LOAD IN IT VERSES YOUR TOP SECTION THAT DOESNT HAVE A LOAD THIS
> INCREASES TRANSMIT POWER BY DRAWING POWER TO THE TOP LOAD....ï¿½
> Ooh, donï¿½t question him, heï¿½s a broadcast engineer! Ha!
> Bob
>
>
> Myles Byrne wrote:
>
>> Been looking for a used 2 mtr ant. - was reading some comments about
>> Fiber Glass and Lightning - Someone said "Fiber Glass to lightning is
>> like a trailer park to a tornado" - "It's all metal on the inside" -
>> So, is there something to the comment ?
>>
Since fiberglass is an insulator and stainless steel is a conductor I
would say that he is 100% correct in his statement that the ss antenna
will function better. :^)

Dave N

576. Re: Given my restrictions, how can I improve my HF antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 04:15:01 UTC
From: Thomas anonymous <Thomas.anonymous.25xuzc@news.radiobanter.com>
Message-ID: <Thomas.anonymous.25xuzc@news.radiobanter.com>
Source record: 61421

Hmmmmm, never thought of that ! Something to think about, for sure ...

--
Thomas anonymous

577. Re: VSWR AND AUTOMATIC TUNING

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 05:04:32 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <zvHZf.66$QP4.8@fed1read12>
Source record: 61418

"Dave" <W1MCE@comcast.net> wrote in message
news:m6CdnWMUI7dgNajZnZ2dnUVZ_vGdnZ2d@comcast.com...
> Big Nose wrote:
>
> > If a transceiver has an in built automatic antenna tuning and matching
> > unit, is there any point in measuring the VSWR as a way of ascertaining
> > its performance?
>
> NOPE! The VSWR in the line = The VSWR in the line = The VSWR in the
> line = The VSWR in the line. The internal tuner does absolutely nothing
> [NOTHING] to the VSWR in the line.
>
> The internal tuner will make the radio 'happy' within it's tuning range,
> but it does NOTHING about the VSWR in the line!
>
>
> >
> > Obviously this would be measured with a thru line meter which would be
> > placed in the feeder system. However, I have been thinking and it
> > would appear that the tuning and matching unit would become part of the
> > antennas impedance (its late and I hope that makes sense).
> >
> > The reason I ask is because I am trying to find out how well certain
> > transceivers will perform with antennas which are designed for
> > different systems.
> >
>

Agree.

But, whether you're doing your testing or operating afterward, there's
usually some value in knowing the VSWR in the line. It may only serve to
clue you to a problem -- and that's info worth having. I'm depending on the
slightly risky assumption that most tuners you test will be able to match to
a less-than-ideal antenna system with high VSWR in the feedline -- one
that's not putting much power into the air.

I had a USN antenna experience with an improperly-modified shipboard HF XMIT
antenna. The Radiomen said it was hard to
tune to it, the reflected power was always high and they never seemed able
to "get out on it" (meaning poor reception reports from the distant end).

When we put the antenna right, all their problems went away.

578. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 05:19:11 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <hJHZf.67$QP4.2@fed1read12>
Source record: 61419
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

<mcalhoun@ksu.edu> wrote in message news:e13e9u$q3u@unix1.cc.ksu.edu...
> I gave a presentation on "How Ham Radio Can Help You in an Emergency"
> to 70 Emergency Management types last week, and the windows in the
> building which hosted the meeting were NOT open-able (so I "made do"
> with an inside VHF antenna and didn't even try to demonstrate HF).
>
> But in emergency/expedient situations, it would be really handy if one
> could pass at HF, say, 100 watts of RF energy through a window (I
> visualize some foil strips and an inductor or two to "tune out" the
> capacitance) to an external antenna.
>
> I've been told that the April, 1989, issue of Ham Radio magazine carried
> an article "Easy antenna access for urban apartment dwellers" (for 15
> meters) by Bryan Bergeron, NU1N, starting on page 18.
>
> I'd sure like to read that article; can anyone send me a copy?
> --
> --Myron A. Calhoun.
> Five boxes preserve our freedoms: soap, ballot, witness, jury, and
cartridge
> PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785)
539-4448
> NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle,
Pistol)

I have drilled a hole in a window frame and passed a piece of RG-58 through
it. A 2M rig in my den is that way right now. It's easier to justify doing
it to your own home than to a place you're visiting

579. Re: VSWR AND AUTOMATIC TUNING

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 06:47:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o3ne321qj2br52tp87t8l29i1a1n2tjkd9@4ax.com>
Source record: 61420

On Fri, 7 Apr 2006 22:04:32 -0700, "Sal M. Onella"
<salmonella@food.poisoning.org> wrote:

>I had a USN antenna experience with an improperly-modified shipboard HF XMIT
>antenna. The Radiomen said it was hard to
>tune to it, the reflected power was always high and they never seemed able
>to "get out on it" (meaning poor reception reports from the distant end).
>
>When we put the antenna right, all their problems went away.

Hi OM,

What was the problem, and what did you do to fix it?

73's
Richard Clark, KB7QHC

580. Feeding 2 VHF Yagis from one coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 11:02:06 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <QdSdnTOhuJSyBarZRVn-vw@bright.net>
Source record: 61422

I have a temporary tower set up with a 6M yagi on it. I'd like to add a 2M yagi. Is it possible to feed the two antennas with one feedline similar to feeding multiple HF antennas with one feedline?

Coax from Shack RG-8 RG-8
==========T==========2M Yagi
I
I RG-8
I
6M Yagi

So basically, I would add a T connector at the 6M Yagi and run another piece of RG-8 from the T to the 2M Yagi (the T connector would have a male PL-259 on one port connected directly to the 6M Yagi, the other 2 ports are female UHF and one would be connected to coax from shack and the other would have the jumper to the 2M antenna). Now the $64K question...should the run of RG-8 from the T to the 2M be a certain length, such as 1/4 or 1/2 Wavelength at one of the bands and if so which band? i.e., 1/2 wavelength at 6M or 1/4 wavelength at 2M, etc. Both antennas use a gamma match as the feed, so the short section of coax seems like it might be perceived as a open-ended stub attached to the 6M antenna??? This is for high speed meteor scatter, so I'm not overly concerned if the antenna patterns get a bit screwed up...

Scott
N0EDV

581. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 11:16:38 UTC
From: Dave <noone@nowhere.com>
Message-ID: <EYqdnbo3vss9BqrZ4p2dnA@crocker.com>
Source record: 61423

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:6XDZf.9261$4L1.5262@newssvr11.news.prodigy.com...
> You said essentially the same thing in your earlier posting -
> that there is no phase information in the standing wave current
> phase and all the phase information is in the amplitude values.

thats the basic problem in this whole discussion. you are all talking about the same thing, just using different notation and incomplete statements so that none of you understands exactly what the others are trying to talk about... when really you are all saying the same thing. its kind of like after i graduated from college with an ee degree and my sister graduated from an air force basic electronics course, she tried to ask me something about currents in a transistor and i saw it all backwards... well of course she was talking electron flow and i was talking hole flow. we both got the same result but the notation was all different.

so, now i will raise my voice...

STOP THIS PETTY BICKERING AND GET OUT THERE AND USE AN ANTENNA INSTEAD OF ARGUING ABOUT WHY THEY DON"T WORK THEY WAY YOU THINK THEY SHOULD!

582. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 11:53:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <evNZf.13675$tN3.10696@newssvr27.news.prodigy.net>
Source record: 61424

Tom Donaly wrote:
> You know, Cecil, a pulse train also satisfies the wave equation.
> Why are you married to sinusoidal waves? Haven't you ever seen
> ghosts on a tv picture? What do those Ghosts represent?

If one doesn't understand sinusoidal waves, one doesn't have
a ghost of a chance of understanding a pulse train. Trying
to introduce a pulse train before understanding sinusoidal
values is just muddying the waters.

In a closed system, such as a source, transmission line, and
receiver, ghosting represents reflected waves.
--
73, Cecil http://www.qsl.net/w5dxp

583. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 11:58:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <2ANZf.13677$tN3.2395@newssvr27.news.prodigy.net>
Source record: 61425

Tom Donaly wrote:
> They also like to talk about "current drops" when they mean the
> difference in current amplitude at two different points.

For an EM wave in a lossy environment, the attenuation factor
applies equally to the E-field and H-field, i.e. equally to
voltage and current. Both "drop" at the same rate.

The transmission line voltage equation contains that attenuation
factor and the current equation is simply the voltage equation
divided by the characteristic impedance.

In a lossy transmission line, the H-field and E-field "drop"
at the same rate since their ratio is fixed by the
characteristic impedance.

One more proof that EM waves are NOT lumped circuit voltages
and currents.
--
73, Cecil http://www.qsl.net/w5dxp

584. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 12:09:44 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <cKNZf.13678$tN3.5705@newssvr27.news.prodigy.net>
Source record: 61326

David G. Nagel wrote:

> Cecil Moore wrote:
>> If we have one amp of forward RF current and one amp of
>> reflected RF current, which direction is the sum of those
>> currents flowing?
>
> I was taught that under these circumstances DC and RF work differently.
> Yes your DC net current is zero. Your new RF current is one amp in each
> direction.

Yes, that is true, but EZNEC doesn't report the two separate currents. EZNEC reports the phasor sum of those two currents in magnitude and phase. So the question still remains: In which direction is the total current reported by EZNEC flowing? What does the unchanging phase really mean?

EZNEC says that, referenced to the source phase, the phase of the phasor sum of the forward and reflected currents is UNCHANGING. It makes no sense to pick a direction of flow for the sum of two equal currents flowing in opposite directions.

Standing wave current doesn't flow in the commonly accepted meaning of "flow". Standing wave current just stands there.

I received the following email from a physics professor:

"As for the standing waves, they really aren't independent creatures. They're an artifact - a construct which happens to look like the superposition of fields which surround the antenna. But the fields which superpose look like the traveling waves. The traveling waves really tell the story."
--
73, Cecil http://www.qsl.net/w5dxp

585. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 12:20:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <FUNZf.13680$tN3.10146@newssvr27.news.prodigy.net>
Source record: 61327

Dave wrote:
> ... when really you are all saying the same thing.

Unfortunately, we are not all saying the same thing.
W7EL and W8JI are saying that using standing wave
current phase to make a phase shift measurement is
a valid approach. They keep reporting their results of
using such an approach as if it were a valid thing to
do. When those useless phase measurements are discarded,
the technical picture becomes a lot clearer.

I, and others, are saying that using a signal with
unchanging phase will not and cannot tell one anything
about any phase shift. There is no phase information
contained in the standing wave phase. All of the phase
information is contained in the standing wave magnitude.

I'm building a web page about this subject. The initial
graphic is at: http://www.qsl.net/w5dxp/travstnd.GIF

Note that for a standing wave current, the only thing
changing with length is magnitude. The flat phase line
of the standing wave current is completely useless for
making phase measurements.
--
73, Cecil http://www.qsl.net/w5dxp

586. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 12:52:43 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <7bcf32hmbefldctb9b7mdmh76bbplmnluo@4ax.com>
Source record: 61328

On Sat, 08 Apr 2006 01:34:33 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Reg Edwards wrote:
>> But, believe it or not, under certain load conditions the reflection
>> coefficient Gamma can exceed unity. Indeed, at a sufficiently low
>> frequency, Gamma can approach 1+Sqrt(2) = 2.414
>
>That agrees with Chipman who says it only occurs in lossy lines.

But in theory, the line can have loss and this does not occur :-)

587. FA: 1-Day-Left: 8 Books: HAM RADIO, SIX METERS, VEC, Electronics, Antennas, etc.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 13:11:58 UTC
From: Jo <jo@jloiuwfsdfa.com>
Message-ID: <080420060911580598%jo@jloiuwfsdfa.com>
Source record: 61329
Cross-posted to: rec.radio.amateur.equipment,alt.ham-radio.marketplace,rec.radio.amateur.antenna

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=4627975156

588. Re: Feeding 2 VHF Yagis from one coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 13:34:06 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <fnqkg3-1s7.ln1@p400bob.personal.cox.net>
Source record: 61331

Hi Scott

No doubt others will give you much better info than I.

The gamma macth feed is irrelevent. If you have a resistive 50 ohm load for each antenna at its operating frequency it makes the maths of using tuned coax lengths a little easier. I would have to sit down and think about it a bit deeper but on the surface it looks like;

Use a 1/4, 3/4, 5/4 etc wavelength of coax on 2M to attach the 6M antenna to the T piece. The logic is that the lowish impedance of the 6M antenna on 2M will be transposed to a high impedance at the T piece, the net result being little effect to feeding the 2M antenna.

Do the reverse when feeding the 2M antenna.

Problem - There is a relatively close harmonic relationship between 6M and 2M. ie a 1/4 wavelength on 6M is close to a 3/4 wavelength on 2M. If you think about it you will note that any 6M length will also be a 2M length! You cant actually get away from the problem! This feeding technique is only really usable when there isnt a 3:1, 5:1 etc frequency relationship.

You are welcome to a spare coaxial relay I have! I dont however have spare N connectors. If you want it pls email me direct.

Cheers Bob W5/VK2YQA East Texas

Scott wrote:
>
>
> I have a temporary tower set up with a 6M yagi on it. I'd like to add a
> 2M yagi. Is it possible to feed the two antennas with one feedline
> similar to feeding multiple HF antennas with one feedline?
>

589. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 13:50:10 UTC
From: w8ji@akorn.net
Message-ID: <1144504210.747890.110740@i39g2000cwa.googlegroups.com>
Source record: 61330

Dave wrote:
> thats the basic problem in this whole discussion. you are all talking about
> the same thing, just using different notation and incomplete statements so
> that none of you understands exactly what the others are trying to talk
> about... when really you are all saying the same thing. its kind of like
> after i graduated from college with an ee degree and my sister graduated
> from an air force basic electronics course, she tried to ask me something
> about currents in a transistor and i saw it all backwards... well of course
> she was talking electron flow and i was talking hole flow. we both got the
> same result but the notation was all different.

That's not true at all Dave. Most of us know that current is current. It really only flows one direction at any instant of time. We can indeed consider systems as having current that flows two directions at one instant of time, but the results of that better agree with the actual real current that flows only in one direction at any instant of time or they are wrong.

Also, behavior of basic components cannot change. A two terminal device like a loading coil cannot have differences in the current flowing through it at each terminal without a third path. (I assume we all know current is not an across vector and it does not "drop", the person who started this thread just used poor wording.)

I think the basic problem is Cecil wants to used some definition of current that does not allow models to be freely exchanged and does not produce results that match real world systems. It always has to match. We can't have different results unless someone has an error.

The only reason I'm skimming the posts here and making the occasional comment is I hate to see people trying to understand how this stuff works be confused. The real fuss is a couple people seem to think standing waves or "missing antenna length" are the root cause of current being different in the two terminal component called a loading coil.

It really isn't an argument or debate as much as trying to help lurkers understand how the system really works, and not let them fall into the trap that the loading coil behavior is any different than any other coil, the only possible reason for differences in current at each terminal is stray capacitance allowing displacement currents to the outside world, and that any phase differences in current at each coil terminal are also tied to capacitance from the coil to the world around the coil.

It's not correct to assume people are talking about the same result different ways, because both Cecil and Yuri have huge flaws in their conclusions. They both seem to want the inductor to behave in some very unique way just because it is an antenna, and the reults they seem to claim do not match actual measurements. Cecil dismisses real measurements with frantic arm waving about reflected and forward current and no one being able to measure current and phase because of standing waves, and while I think Yuri would accept measurements he won't accept them when made by others and won't make them himself.

This has gone on for perhaps three years now. It is really up to Cecil and Yuri to let it go, since they are the ones who seem to disagree with measurements and accepted theory.

73 Tom

590. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 14:15:25 UTC
From: Dave <noone@nowhere.com>
Message-ID: <QoGdnZu0NMUaWKrZnZ2dnUVZ_tCdnZ2d@crocker.com>
Source record: 61332

>
> Dave wrote:
>> thats the basic problem in this whole discussion. you are all talking
>> about
>> the same thing, just using different notation and incomplete statements
>> so
>> that none of you understands exactly what the others are trying to talk
>> about... when really you are all saying the same thing. its kind of like
>> after i graduated from college with an ee degree and my sister graduated
>> from an air force basic electronics course, she tried to ask me something
>> about currents in a transistor and i saw it all backwards... well of
>> course
>> she was talking electron flow and i was talking hole flow. we both got
>> the
>> same result but the notation was all different.
>
> That's not true at all Dave. Most of us know that current is current.
> It really only flows one direction at any instant of time. We can
> indeed consider systems as having current that flows two directions at
> one instant of time, but the results of that better agree with the
> actual real current that flows only in one direction at any instant of
> time or they are wrong.
>
> Also, behavior of basic components cannot change. A two terminal device
> like a loading coil cannot have differences in the current flowing
> through it at each terminal without a third path. (I assume we all
> know current is not an across vector and it does not "drop", the person
> who started this thread just used poor wording.)

ARGH! maybe it really is more basic than different notations and
terminology. when working with antennas and 'component's that are a
significant fraction of a wavelength in size you must take into account the
'third path'... the 'third path' consists of the distributed capacitance and
resistance that CAN be modeled with lumped components if you want to go
through all the approximations and extra calculations that are required. if
you are ignoring that 'path' when talking about relatively large loading
coils then you will be wrong, how wrong depends on how large of course.

i haven't been following all the different threads and junk in here, but if
you are trying to analyze a significant sized loading coil without taking
into account all the paths then you are going to likely be less accurate
than cecil using a more complete distributed model. OBVIOUSLY if you are
using a strict lumped model the current can't be different from one end to
the other. And just as obviously if you make a really large loading coil,
like a full '1/2 wave' slinky dipole, the current at the feedpoint end will

be MUCH different than at the open end. You can both get the same results, but to do it with lumped elements requires the same calculations that are done by finite element simulations that try to do enough small lumped elements as possible to approximate the distributed equations that would give nice smooth results. Unfortunately cecil does not do a good job in relating the distributed model, and his constant references to 'optics' and the use of terms related to that field do nothing but confuse many of the people in here to think that he is in a different world. admit it cecil, while you may be correct, using a different set of terminology than most of the people in here has done nothing but add to the confusion factor in many of this long drawn out threads.

I still think that if each of you explained the WHOLE problem in your own terminology, INCLUDING all the assumptions that are required for the models you are using, that you would find that each of you is correct. but because you are starting from different sets of assumptions you will never find a common ground.

enough of this, back to assembling my new linear loaded 40m beam... why don't you go analyze that loading system for a while.

591. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 14:30:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qOPZf.494$Lm5.264@newssvr12.news.prodigy.com>
Source record: 61333

w8ji@akorn.net wrote:

I had this example at the bottom of my posting but you seem
to ignore such. So I am moving it to the top of the posting.
If you ignore it now, at least everyone will know you couldn't
possibly have missed it.

You are in a room with a 50 ohm transmission line routed
through a hole in one side of the room, across the room,
and through a hole in the other side of the room. You don't
know which is the source end of the line. A directional
wattmeter reads 200 watts forward power and 200 watts
reflected power but you don't know which direction is
forward. Here's a diagram:

200W--> 2 amps-->
hole-------------------50 ohm coax-------------------hole
<--200W <--2 amps

Which direction is the standing wave current flowing?

If you knew forward current was moving left to right which
direction would the standing wave current be flowing?

> That's not true at all Dave. Most of us know that current is current.

Too bad EZNEC disagrees with you as seen in the graphic at:

http://www.qsl.net/w5dxp/travstnd.GIF

The traveling wave current is virtually the opposite of the
standing wave current as can be seen by their different
equations. There is no phase information in the standing
wave current phase. Yet that is exactly the phase W7EL
used to try to measure the delay/phase shift through a
coil.

DC current is different from AC current. That's why the
DC or AC designations are necessary. RF forward current
is different from RF standing wave current. That's why
the different designations are necessary.

> It really only flows one direction at any instant of time.

Or not at all at a standing wave current node.
Too bad we are talking RMS values here which is what EZNEC
reports. I'll ask the question of you: If one amp of RF
current is flowing in one direction and one amp of RF

current is flowing in the opposite direction, which direction
does the phasor sum of those two currents flow?

> We can
> indeed consider systems as having current that flows two directions at
> one instant of time, but the results of that better agree with the
> actual real current that flows only in one direction at any instant of
> time or they are wrong.

The phase of standing wave current is unchanging. It doesn't "flow"
in the commonly accepted sense of the word. As Hecht says in "Optics":

"This is the equation for a STANDING or STATIONARY WAVE, as opposed
to a traveling wave. Its profile does not move through space; it is
clearly not of the form Func(x +/- vt)."

[Standing wave phase] "doesn't rotate at all, and the resultant
wave it represents doesn't progress through space - its a standing
wave."

If standing wave light doesn't move through space, then standing
wave RF also doesn't move through a wire.

> (I assume we all
> know current ... does not "drop", ...)

EM current does indeed drop exactly like EM voltage drops both
according to the attenuation factor. Just one more proof that
EM waves are not lumped circuit currents. The only difference
in the equation for transmission line voltage and current is
the voltage gets divided by the characteristic impedance which
is usually a resistive constant.

> I think the basic problem is Cecil wants to used some definition of
> current that does not allow models to be freely exchanged and does not
> produce results that match real world systems. It always has to match.
> We can't have different results unless someone has an error.

Exactly correct and the reason for the different results is your
error. In any conflict between the distributed network model and
the lumped circuit model, the distributed network model wins
every time since it is a superset of the lumped circuit model.

> This has gone on for perhaps three years now. It is really up to Cecil
> and Yuri to let it go, since they are the ones who seem to disagree
> with measurements and accepted theory.

On the contrary, it is up to you and others to correct your
misconceptions about standing wave current. Your "accepted
theory" has holes in it that I could drive my GMC pickup
through.
--
73, Cecil http://www.qsl.net/w5dxp

592. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 14:36:59 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <fUPZf.706399$qk4.297406@bgtnsc05-news.ops.worldnet.att.net>
Source record: 61334

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I thought you denounced and denied this "concept" earlier today.
>
>
> Guess you misunderstood. A coil can replace 30 degrees of
> an antenna but it won't use the same amount of wire as
> 30 degrees of wire. What I said is that an inductor is
> more efficient than linear loading.

Cecil,

I am feeling dizzy. I am quite comfortable with my understanding of the entire problem, but I am seriously confused about your position. Nobody has ever talked about efficiency or the length of wire needed. The issue has always been replacing "degrees of antenna". I have captured a few excerpts from April 7.

73,
Gene
W4SZ

Excerpt follow:

9:03 am -- From Cecil

K7ITM wrote:

> Another 'speriment occured to me, for those who think the coil current
> MUST be different at the two ends by the amount corresponding to the
> antenna section it replaces:

To the best of my knowledge, nobody believes that. The coil is much more efficient at the loading function than is the straight wire from which it is made. That's why inductive loading is more efficient than fractal antennas or other types of linear loading.
--
73, Cecil http://www.qsl.net/w5dxp

9:24 am -- From Yuri

[excerpt]

Now you move that coil say half way up the must, to higher impedance point at the antenna, and that coil now, in order to maintain the "match" has to have higher impedance, more turns and will exhibit MORE

current drop across it, while replacing THE SAME NUMBER OF "missing" DEGREES AT THE RADIATOR.
Assuming that our goal is to stay with the same physical length of the whip (which we do) and maintaining 90 degrees of resonant radiator. So the radiator stays 50 degrees ()+50, 10+40, 20+30, 30+20, 40 + 10) long and coil replaces the same "missing" 40 degrees.

[emphasis was in the original message]

9:44 am -- From Cecil

Roy Lewallen wrote:

> Of course loading coils can be expressed in electrical degrees. But extrapolating this to mean that a loading coil has the same properties as an antenna with the same number of "degrees" has no justification.

I haven't heard anybody make that assertion in years. Coils occupy whatever number of degrees that they occupy.

8:49 pm -- From Cecil

[excerpt]

Example: The phase shift from 30% to 60% in the traveling wave antenna is taken from the tabular data as 54.2-27.6 = 26.6 degrees.

The phase information is in the *phase* in a traveling wave.

For the standing wave current, the situation is completely different. The phase measured between any two current probes will always be zero. The phase of a standing wave current is useless for measuring phase shift. The way to extract the phase information is to measure the *amplitude* at two points and then calculate the phase shift by taking the arc-cos of the normalized amplitude.

Example: The phase shift from 30% to 60% in the standing wave antenna is arc-cos(0.8843) - arc-cos(0.5840) = 26.5 degrees.

The phase information is in the *amplitude* in a standing wave.

Thus in both antennas, the phase shift in 30 percent of the wire is about 27 degrees. (90*.3 = 27) If we had a coil installed in that 30 degrees of the antenna instead of a wire, the same concepts would apply.

593. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 14:37:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <EUPZf.497$Lm5.217@newssvr12.news.prodigy.com>
Source record: 61335

Dave wrote:
> admit it cecil,
> while you may be correct, using a different set of terminology than most of
> the people in here has done nothing but add to the confusion factor in many
> of this long drawn out threads.

I have a limited technical library. I wish my RF references spelled out
everything as well as "Optics", by Hecht, but mine don't. Light and RF
are the same kind of EM waves, just at different frequencies. Hecht's
material is certainly relevant to RF waves. And I make every effort to
translate the technical jargon from one field to the other as best I
know how.

Hecht presents the best treatment of superposition, interference,
and standing waves that I have ever seen. I wish I had an RF
reference book as well written as "Optics".
--
73, Cecil http://www.qsl.net/w5dxp

594. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 14:51:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <J5QZf.502$Lm5.373@newssvr12.news.prodigy.com>
Source record: 61336

Gene Fuller wrote:
> I am feeling dizzy. I am quite comfortable with my understanding of the
> entire problem, but I am seriously confused about your position. Nobody
> has ever talked about efficiency or the length of wire needed. The issue
> has always been replacing "degrees of antenna". I have captured a few
> excerpts from April 7.

What you quoted from me is my reporting of what EZNEC says about
standing wave current Vs traveling wave current at:

http://www.qsl.net/w5dxp/travstnd.GIG

The 'x' axis for both conditions is just a piece of 1/4WL wire.
One can calculate the phase shift in any section of wire in two
ways:

1. For traveling waves, the phase shift is given by the graph
of the phase (red line). The magnitude (blue line) contains
no phase information.

2. For standing waves, the phase shift is given by taking the
arc-cosine of the magnitude (blue line). The phase (red line)
contains no phase information.

Before we talk about replacing a piece of wire with a coil,
do you understand the above graphic and concepts? You seemed
to understand when you posted:

Regarding the cos(kz)*cos(wt) term in a standing wave:

Gene Fuller, W4SZ wrote:
> In a standing wave antenna problem, such as the one you describe,
> there is no remaining phase information. Any specific phase
> characteristics of the traveling waves died out when the startup
> transients died out.
>
> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be
> seen again.
>
> The only "phase" remaining is the cos (kz) term, which is really
> an amplitude description, not a phase.
--
73, Cecil http://www.qsl.net/w5dxp

595. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 15:38:04 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <I4udnd3f9-HxSqrZ4p2dnA@adelphia.com>
Source record: 61337

Cecil Moore wrote:
(snip)
> You are in a room with a 50 ohm transmission line routed
> through a hole in one side of the room, across the room,
> and through a hole in the other side of the room. You don't
> know which is the source end of the line. A directional
> wattmeter reads 200 watts forward power and 200 watts
> reflected power but you don't know which direction is
> forward. Here's a diagram:
>
> 200W--> 2 amps-->
> hole-------------------50 ohm coax-------------------hole
> <--200W <--2 amps
>
> Which direction is the standing wave current flowing?

Lets also say that the wavelength of the waves passing through this transmission line are as long as the room is wide (one wavelength fits inside the room.

Then we can say that at any moment when the instantaneous magnitude of he current is not at zero (and it will pass through zero all along the line simultaneously, right?), the current will going in one direction in half of that length *with varying magnitude) and the other way in the other half (also with varying magnitude). I am not saying that the direction reversal will necessarily be at the center, but that is one possibility.

For example, if we took a snapshot of the current, all along the line at the moment it peaked it might look like this:(length of arrow represents current magnitude, and head shows direction)(view in fixed width font)

```
....---> ---> --> -> <- <-- <--- <--- <-- <- -> -->......
hole-------------------50 ohm coax-------------------hole
```

This is a snapshot of the current all along the line at an instant.

A quarter cycle later, the current would be zero, everywhere.

A half cycle later (than the first snapshot) it would look like this:

```
....<--- <--- <-- <- -> --> ---> ---> --> -> <- <--......
hole-------------------50 ohm coax-------------------hole
```

This is the pattern the standing wave function describes. The current at every point has one of two phases, which are 180 degrees from each

other.

Is this how you see it?

596. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 15:47:28 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <4eydnTjNN9U9RKrZRVn-qQ@adelphia.com>
Source record: 61338

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I am feeling dizzy. I am quite comfortable with my understanding of
>> the entire problem, but I am seriously confused about your position.
>> Nobody has ever talked about efficiency or the length of wire needed.
>> The issue has always been replacing "degrees of antenna". I have
>> captured a few excerpts from April 7.
>
>
> What you quoted from me is my reporting of what EZNEC says about
> standing wave current Vs traveling wave current at:
>
> http://www.qsl.net/w5dxp/travstnd.GIG
>
> The 'x' axis for both conditions is just a piece of 1/4WL wire.
> One can calculate the phase shift in any section of wire in two
> ways:
>
> 1. For traveling waves, the phase shift is given by the graph
> of the phase (red line). The magnitude (blue line) contains
> no phase information.
>
> 2. For standing waves, the phase shift is given by taking the
> arc-cosine of the magnitude (blue line). The phase (red line)
> contains no phase information.

Agreed, with one exception.

There is a phase reversal each time you pass through a node, so you
can tell by phase measurement, if you are on the far end of an odd
numbered node or an even numbered node, once you decide which of the
two possibilities of the phase is at the far end of node zero (or some
other reference point). But between any pair of nodes, yes, you have
to use the phase information obtained from the ARC-COS(magnitude), or
the distance from that point to a node (as a fraction of a wavelength
in the line), to infer where you are within that half wavelength.

Of course, you can find the node either as a point with zero
magnitude, or the point between phase reversals.

597. Re: Fiber Glass (shell) vs Metal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 15:48:28 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4437DB59.ACDF9A9B@shaw.ca>
Source record: 61339

"David G. Nagel" wrote:
>

> >>
> Since fiberglass is an insulator and stainless steel is a conductor I
> would say that he is 100% correct in his statement that the ss antenna
> will function better. :^)
>
> Dave N

I have to agree, Dave.
It kind of makes sense that if a signal is strong enough fight its way up the
stainless steel, and then out through the fibreglass that it is
most certainly strong enough to hit any receiver.

Irv VE6BP

--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

598. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 16:17:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0mRZf.9357$4L1.8786@newssvr11.news.prodigy.com>
Source record: 61340

John Popelish wrote:
> This is the pattern the standing wave function describes. The current
> at every point has one of two phases, which are 180 degrees from each
> other.
>
> Is this how you see it?

Yes, now which direction is that current flowing? If the
source were known to be to the left, would that change
your answer?
--
73, Cecil http://www.qsl.net/w5dxp

599. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 16:21:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <YpRZf.9359$4L1.7099@newssvr11.news.prodigy.com>
Source record: 61341

John Popelish wrote:

> Cecil Moore wrote:
>> http://www.qsl.net/w5dxp/travstnd.GIF

> Agreed, with one exception.
> There is a phase reversal each time you pass through a node, ...

You are correct if two sides of a node exist in the system.
But since the context was my above 1/4WL wire, there is no
"passing through a node". I was limiting my statements
in context to a 1/4WL long conductor.
--
73, Cecil http://www.qsl.net/w5dxp

600. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 16:54:05 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <icSdncpVu52hdKrZRVn-pw@adelphia.com>
Source record: 61342

Cecil Moore wrote:
> John Popelish wrote:
>
>> This is the pattern the standing wave function describes. The current
>> at every point has one of two phases, which are 180 degrees from each
>> other.
>>
>> Is this how you see it?
>
> Yes, now which direction is that current flowing?

You deleted the arrows which I drew that showed one possible case. Do
you have some argument with what you deleted?
(I'll replace it, so you don't have to go back to look at it)
(begin paste)

For example, if we took a snapshot of the current, all along the line
at the moment it peaked it might look like this:(length of arrow
represents current magnitude, and head shows direction)(view in fixed
width font)

```
....---> ---> --> -> <- <-- <--- <--- <-- <- -> -->......
hole--------------------50 ohm coax--------------------hole
```

This is a snapshot of the current all along the line at an instant.

A quarter cycle later, the current would be zero, everywhere.

A half cycle later (than the first snapshot) it would look like this:

```
....<--- <--- <-- <- -> --> ---> ---> --> -> <- <--......
hole--------------------50 ohm coax--------------------hole
```
(end paste)

See all those arrows of various length representing current direction
and magnitude? Why do you ask me about something after erasing my answer?

> If the source were known to be to the left, would that change
> your answer?

For a pure standing wave, there is effectively a source at each end,
so this question is meaningless.

601. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 16:55:47 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <icSdncVVu50_dKrZRVn-pw@adelphia.com>
Source record: 61343

```
Cecil Moore wrote:
> John Popelish wrote:
>
>> Cecil Moore wrote:
>>
>>> http://www.qsl.net/w5dxp/travstnd.GIF
>
>
>> Agreed, with one exception.
>> There is a phase reversal each time you pass through a node, ...
>
>
> You are correct if two sides of a node exist in the system.
> But since the context was my above 1/4WL wire, there is no
> "passing through a node". I was limiting my statements
> in context to a 1/4WL long conductor.

So, add some transmission line to the system so a node's location is
measurable inside the system. By the way, in case you didn't notice,
I am agreeing with you, and elaborating on what you are saying.
```

602. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 17:05:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <EtGdnSaODZs7cKrZRVnyvw@bt.com>
Source record: 61344

```
> "Cecil Moore" wrote
> > That agrees with Chipman who says it only occurs in lossy lines.
> ==========================================
> Didn't you know ALL real lines are lossy?
>
> Still, I'm pleased to hear Chipman agrees with me.
> ----
> Reg.
>
======================================

- - - - and perhaps I should add that I was well aquainted with the
behaviour of transmission lines well before Chipman wrote his book.
----
Reg.
```

603. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 17:21:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <narf325dkahp9mmapsqnubb471jp1pda82@4ax.com>
Source record: 61345

>> 200W--> 2 amps-->
>> hole-------------------50 ohm coax-------------------hole
>> <--200W <--2 amps
>>which direction is that current flowing?

As usual, the question is nonsense when the picture reveals the
answer. Cecil rarely sees the irony - except to brush it off as
1. Rhetoric (no answer needed, an admission of wasting time);
2. Our error for not knowing he made a squinty-eyed mistake
(playing the pity card);
3. A joke (having forgotten one of a bajillion happy faces).

The real joke follows below. ;-) (my own happy face)

On Sat, 08 Apr 2006 12:54:05 -0400, John Popelish <jpopelish@rica.net>
wrote:

>> If the source were known to be to the left, would that change
>> your answer?
>
>For a pure standing wave, there is effectively a source at each end,
>so this question is meaningless.

Hi John,

That was a good joke too, mine is different.

********** spoiler follows **********

The current is flowing in the SWR meter. DUH!

I would, of course, task any/everyone to find any point along the line
where the SWR meter does not exhibit current flow for this
configuration. :-)

Quod Erat Demonstrandum

Of course, armchair theories based upon Xeroxed research of third
parties (which necessarily implies the Xeroxing assignment did not
include copying that significant page which decimates their argument)
may now rattle on.

73's
Richard Clark, KB7QHC

604. Re: tower/transmitter ownership

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 17:24:50 UTC
From: CW <s@earthlink.net>
Message-ID: <CISZf.815$An2.267@newsread2.news.pas.earthlink.net>
Source record: 61346

This sounds like a common theme. A shortwave station, intended audience being the US, sidestepping FCC regulations by aiming a barely directional antenna at the northern tip of Mexico. There are a number of stations doing just this. The majority of their programming is far right religious with the occasional fringe "militia", conspiracy freak, and doomsday predictor thrown in. Don't plan on getting rich. In fact, you may well have trouble staying on the air. The sort of people that you will be dealing with are often less than trustworthy. Watch your back.

"DrJoe" <phdjwg@earthlink.net> wrote in message
news:1143740745.091525.126930@v46g2000cwv.googlegroups.com...
> Hello all,
>
> I am new to the group but have a specific reason for joining. The
> primary reason I joined, like many of you I am sure, is to get
> information about short wave radio. My situation: I have the
> appropriate parcel of land (110) acres that is free from any legal
> impediments to building a short wave radio tower. The land is located
> in West Central Alabama, in rural Fayette County.I also have the
> necessary funding to build a short wave radio tower and transmitter.
> The site has been evaluated as a perfect location that is virtually
> free from any potential liability and from the perspective of reaching
> millions of people in Mexico and Central America.
>
>
> Questions for the group:
>
>
> 1. What are the potential financial rewards for owning and operating a
> short wave radio transmitter/tower?
>
>
> 2. How does an owner go about establishing a revenue stream from
> potential purchasers of air time.
>
>
> 3. Who would the primary customer base be?
>
>
> Comments or suggestions?
>
>
> Thank you,
>

>
> DrJoe (newbie)
>

605. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 17:27:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bjsf3296acr48ed76j430c36u9vhprtuoe@4ax.com>
Source record: 61348

On Sat, 8 Apr 2006 18:05:39 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

> - - - - and perhaps I should add that I was well aquainted with the
>behaviour of transmission lines well before Chipman wrote his book.

Did you scribble it on the last page of Noah's log?

606. Please explain side lobe statement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 17:28:28 UTC
From: Ron J <bigschlong@gmail.com>
Message-ID: <1144517308.519584.87760@e56g2000cwe.googlegroups.com>
Source record: 61347

Hello, I have Balanis' Antenna Theory 3rd Edition. I read on page 31 at the very last sentence that "Side lobe levels of -20 dB or smaller are usually not desirable in most applications."

Why? On the same paragraph it states that "minor lobes represent radiation in undesired directions, and they should be minimized." If a side lobe is a minor lobe, then why is it undesirable to have side lobe levels less than -20 dB? Thanks!

607. Re: Please explain side lobe statement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 17:53:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <70uf32ddjbdkk660da5oj50r82en9c7cg1@4ax.com>
Source record: 61349

On 8 Apr 2006 10:28:28 -0700, "Ron J" <bigschlong@gmail.com> wrote:

>If a
>side lobe is a minor lobe, then why is it undesirable to have side lobe
>levels less than -20 dB? Thanks!

Hi Ron,

If it were one side lobe, that would be great. If it is several dozen
minor side lobes, then that is entirely another matter. The antenna
design is devoting too much power in this aggregate.

73's
Richard Clark, KB7QHC

608. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 18:02:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <dVSZf.13758$tN3.7503@newssvr27.news.prodigy.net>
Source record: 61350

John Popelish wrote:
> See all those arrows of various length representing current direction
> and magnitude? Why do you ask me about something after erasing my answer?

As is my custom, I erase everything I agree with.

>> If the source were known to be to the left, would that change
>> your answer?
>
> For a pure standing wave, there is effectively a source at each end, so
> this question is meaningless.

Exactly! Now try to tell that to W8JI and W7EL who attempt to
assign a direction of flow to standing wave current and use
its phase to determine the phase shift through a wire or coil.
--
73, Cecil http://www.qsl.net/w5dxp

609. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 18:04:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <UWSZf.13760$tN3.715@newssvr27.news.prodigy.net>
Source record: 61351

John Popelish wrote:
> So, add some transmission line to the system so a node's location is
> measurable inside the system. By the way, in case you didn't notice, I
> am agreeing with you, and elaborating on what you are saying.

I know you are agreeing with me. The only disagreement you
and I have ever had was over my poor choice of words.
--
73, Cecil http://www.qsl.net/w5dxp

610. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 18:06:09 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <IYSZf.13761$tN3.8609@newssvr27.news.prodigy.net>
Source record: 61352

Reg Edwards wrote:
> - - - - and perhaps I should add that I was well aquainted with the
> behaviour of transmission lines well before Chipman wrote his book.

He wrote his book almost 40 years ago, Reg. Do you know
how old that makes you?
--
73, Cecil http://www.qsl.net/w5dxp

611. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 18:08:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <F_SZf.13762$tN3.7944@newssvr27.news.prodigy.net>
Source record: 61353

Richard Clark wrote:
> I would, of course, task any/everyone to find any point along the line
> where the SWR meter does not exhibit current flow for this
> configuration. :-)

That's easy, Richard. The current pickup in the SWR meter
will read zero at a standing wave current node. It's a
good thing that an SWR meter is not 100% dependent upon
a current flow reading, eh?
--
73, Cecil http://www.qsl.net/w5dxp

612. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 18:24:17 UTC
From: w8ji@akorn.net
Message-ID: <1144520657.700666.313670@g10g2000cwb.googlegroups.com>
Source record: 61354

Cecil Moore wrote:
> 200W--> 2 amps-->
> hole-------------------50 ohm coax-------------------hole
> <--200W <--2 amps
>
> Which direction is the standing wave current flowing?

What are you calling "standing wave current flow"? Describe or define it.

Are you actually saying charges flow two directions at the same time and place in any given snapshot of time?

The current we would measure at any place with a current indicator and the phase of that current IS the actual current flow. Any solution breaking it down into forward and reflected current has to produce the same answer as the measurement, and that current (as you agreed earlier) is the current responsible for radiation, heating, and phase of the radiated field.

It is impossible to have different currents at each end of the inductor without having displacement currents, or what Reg calls "radial current flow".

Why are you complicating your life with something that seems to be giving you the wrong answer? More important, why do you want the rest of the world to share in having the wrong answer?

73, Tom

613. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 19:51:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lq4g32dfuf5ho8vcrd5cg34h9imk5f2nth@4ax.com>
Source record: 61356

On Sat, 08 Apr 2006 18:08:37 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>an SWR meter is not 100% dependent upon
>a current flow reading, eh?

********** W R O N G !! **********

No meter movement moves without current!

Ta Dah!

more rattling of dusty bones about Zero (0) current may now
continue....

614. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 19:52:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7wUZf.534$Lm5.351@newssvr12.news.prodigy.com>
Source record: 61355

w8ji@akorn.net wrote:
> Cecil Moore wrote:
>
>> 200W--> 2 amps-->
>>hole------------------50 ohm coax------------------hole
>> <--200W <--2 amps
>>
>>Which direction is the standing wave current flowing?
>
> What are you calling "standing wave current flow"? Describe or define
> it.

The same standing wave current that you and W7EL used to make
your current measurements on standing wave antennas.

> Are you actually saying charges flow two directions at the same time
> and place in any given snapshot of time?

Water waves flow two directions at the same time using the same
water molecules. EM waves flow two directions at the same time
using the same carriers. Waves in a rope travel two directions
at the same time using the same molecules. It is a common physical
occurrence. Hint: The carriers of the waves are NOT the same thing
as the waves.

> The current we would measure at any place with a current indicator and
> the phase of that current IS the actual current flow.

What direction is that current flowing when its phase is not
changing relative to the source phase? This is a key question.

> It is impossible to have different currents at each end of the inductor
> without having displacement currents, or what Reg calls "radial current
> flow".

We have different currents at each end of a wire quite often
without having displacement currents. Does having zero amps
and one point and one amp 1/4WL away mean there's displacement
current in a transmission line? When you figure out the answer
to that one, you will understand why the coil can have negligible
displacement current and still have zero amps at one end and
one amp at the other end, just like the wire or transmission line.

Source--------------a-/////////-b------------------------------

Measured current at 'a' is zero amps. Measured current at 'b' is
one amp. Where is the current at 'b' coming from? Certainly NOT

from displacement currents.

> Why are you complicating your life with something that seems to be
> giving you the wrong answer?

Actually, I am complicating your life with something that gives
the correct answer. If you will fix your misconceptions about
standing wave current, everything else should be just fine.
--
73, Cecil http://www.qsl.net/w5dxp

615. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 20:14:26 UTC
From: jpopelish@rica.net
Message-ID: <1144527265.990824.208890@i40g2000cwc.googlegroups.com>
Source record: 61357

Cecil Moore wrote:

> Water waves flow two directions at the same time using the same
> water molecules.

And any one of those molecules that participate in the process move in
a circular motion, if the process is a pure traveling wave, or up and
down if the process is a pure standing wave.

> EM waves flow two directions at the same time
> using the same carriers.

Charge movement.

> Waves in a rope travel two directions
> at the same time using the same molecules. It is a common physical
> occurrence. Hint: The carriers of the waves are NOT the same thing
> as the waves.
>
> > The current we would measure at any place with a current indicator and
> > the phase of that current IS the actual current flow.
>
> What direction is that current flowing when its phase is not
> changing relative to the source phase? This is a key question.

The current in the wire must be in one of two directions, since that is
the only path the wire can provide. However, there are also radial
displacements driven by the rate of change of voltage at each point
along the wire. The displacement currents are what allow the current
in the wire to be different at different points. If there were no
dosplacement curents, the speed of light would be infinite and there
would be no waves.

> > It is impossible to have different currents at each end of the inductor
> > without having displacement currents, or what Reg calls "radial current
> > flow".
>
> We have different currents at each end of a wire quite often
> without having displacement currents.

Impossible. Any conductor with changing voltage has displacement
current to ite surroundings.

> Does having zero amps
> and one point and one amp 1/4WL away mean there's displacement
> current in a transmission line?

If there is non zero amps nearby, that is exactly what it means.

> When you figure out the answer
> to that one, you will understand why the coil can have negligible
> displacement current and still have zero amps at one end and
> one amp at the other end, just like the wire or transmission line.

You cannot have a transmission line without displacement currents.

> Source--------------a-/////////-b------------------------------
>
> Measured current at 'a' is zero amps. Measured current at 'b' is
> one amp. Where is the current at 'b' coming from? Certainly NOT
> from displacement currents.

I disagree. every conductive surface with varying voltage on it has
displacement curent, whether that surface is part of a transmission
line, a coil, or an antenna.

> > Why are you complicating your life with something that seems to be
> > giving you the wrong answer?
>
> Actually, I am complicating your life with something that gives
> the correct answer. If you will fix your misconceptions about
> standing wave current, everything else should be just fine.

You can have no waves in transmission lines, coils or antennas without
displacement currents. They are half of what supports the waves and
determines their speed.

616. Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 20:15:38 UTC
From: AK <nomail@aol.com>
Message-ID: <KRUZf.88176$oL.627@attbi_s71>
Source record: 61358

Is 78% the correct velocity factor for RG8X coax?

617. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 20:17:17 UTC
From: Dave <noone@nowhere.com>
Message-ID: <ht6dncmFrIPKh6XZnZ2dnUVZ_tmdnZ2d@crocker.com>
Source record: 61359

that is what is listed in the belden catalog

"AK" <nomail@aol.com> wrote in message news:KRUZf.88176$oL.627@attbi_s71...
> Is 78% the correct velocity factor for RG8X coax?
>

618. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 20:20:26 UTC
From: AK <nomail@aol.com>
Message-ID: <eWUZf.88181$oL.84498@attbi_s71>
Source record: 61360

Thanks Dave. The only Belden catalog info I could find on-line didn't list the VP. Is there a link for full Belden info you could give me? AK

619. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 20:30:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <I3VZf.68179$dW3.19515@newssvr21.news.prodigy.com>
Source record: 61361

Richard Clark wrote:
> Cecil Moore <mycall@hotmail.com> > wrote:
>>an SWR meter is not 100% dependent upon
>>a current flow reading, eh?
>
>
> ********** W R O N G !! **********
> No meter movement moves without current!

Who said anything about the meter movement? We are talking
about the RF current magnitude which indeed can be zero.

When the RF standing wave current magnitude is zero, it just
means that all the energy is stored in the standing wave
voltage which is half of the SWR measurement.
--
73, Cecil http://www.qsl.net/w5dxp

620. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 20:54:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9qVZf.68183$dW3.29026@newssvr21.news.prodigy.com>
Source record: 61365

John Popelish wrote:
> Cecil Moore wrote:
>> I know you are agreeing with me. The only disagreement you
>> and I have ever had was over my poor choice of words.
>
> Read on.
>
> I just posted something that disagrees with you about something
> fundamental. I have no intention of bucking you or supporting you.

It was again my poor choice of words. Read on.
--
73, Cecil http://www.qsl.net/w5dxp

621. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 20:54:46 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <5OWdnQdgY-Q4vKXZRVn-uw@adelphia.com>
Source record: 61362

Richard Clark wrote:

> On Sat, 08 Apr 2006 12:54:05 -0400, John Popelish <jpopelish@rica.net>
> wrote:

>>For a pure standing wave, there is effectively a source at each end,
>>so this question is meaningless.
>
>
> Hi John,
>
> That was a good joke too, mine is different.
(snip)

I was not trying to be humorous.
I was stating a fact as I understand it.

622. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 20:55:14 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <5OWdnQZgY-RdvKXZRVn-uw@adelphia.com>
Source record: 61363

Cecil Moore wrote:
> John Popelish wrote:
>
>> See all those arrows of various length representing current direction
>> and magnitude? Why do you ask me about something after erasing my
>> answer?
>
>
> As is my custom, I erase everything I agree with.
>
>>> If the source were known to be to the left, would that change
>>> your answer?
>>
>>
>> For a pure standing wave, there is effectively a source at each end,
>> so this question is meaningless.
>
>
> Exactly! Now try to tell that to W8JI and W7EL who attempt to
> assign a direction of flow to standing wave current and use
> its phase to determine the phase shift through a wire or coil.

Not my job.

623. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 20:56:55 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <5OWdnQFgY-S7v6XZRVn-uw@adelphia.com>
Source record: 61364

Cecil Moore wrote:
> John Popelish wrote:
>
>> So, add some transmission line to the system so a node's location is
>> measurable inside the system. By the way, in case you didn't notice,
>> I am agreeing with you, and elaborating on what you are saying.
>
>
> I know you are agreeing with me. The only disagreement you
> and I have ever had was over my poor choice of words.

Read on.

I just posted something that disagrees with you about something
fundamental. I have no intention of bucking you or supporting you.

I am interested in understanding.

624. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 21:10:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <tFVZf.68190$dW3.17871@newssvr21.news.prodigy.com>
Source record: 61366

jpopelish@rica.net wrote:
> The current in the wire must be in one of two directions, since that is
> the only path the wire can provide.

In which direction is that current flowing when its phase
is unchanging with respect to the source?

> Any conductor with changing voltage has displacement
> current to ite surroundings.

Which are quite often negligible compared to the effect
of the phasor addition of forward and reflected currents.
All I am saying is that the displacement current to ground
is often a secondary effect which can be ignored when only
primary effects are being considered.
--
73, Cecil http://www.qsl.net/w5dxp

625. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 21:41:43 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123gbgoripn6t14@corp.supernews.com>
Source record: 61367

My experience is that the velocity factor of foam dielectric cable like RG8X varies considerably from batch to batch and manufacturer to manufacturer. Apparently they have poor control over the foam density in the manufacturing process. For any application where it really matters, you really have to measure it for the particular piece of cable you'll be using.

Roy Lewallen, W7EL

AK wrote:
> Is 78% the correct velocity factor for RG8X coax?
>
>

626. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 22:05:07 UTC
From: Dave <noone@nowhere.com>
Message-ID: <E4GdnSReMPQDrqXZnZ2dnUVZ_uidnZ2d@crocker.com>
Source record: 61368

i have a paper catalog, don't know about on-line links for them.

"AK" <nomail@aol.com> wrote in message
news:eWUZf.88181$oL.84498@attbi_s71...
> Thanks Dave. The only Belden catalog info I could find on-line didn't list
> the VP. Is there a link for full Belden info you could give me? AK
>

627. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 22:18:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8kdg32h9havm34fg03ssvbuiqc784q7nge@4ax.com>
Source record: 61369

On Sat, 08 Apr 2006 20:30:32 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>> Cecil Moore <mycall@hotmail.com> > wrote:
>>>an SWR meter
>Who said anything about the meter movement?

Ta Dah!

No current, no SWR indication.

628. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 22:30:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b2eg3258mne0p76d375img1klvlk8c6rqn@4ax.com>
Source record: 61370

On Sat, 08 Apr 2006 10:21:08 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>As usual, the question is nonsense when the picture reveals the
>answer. Cecil rarely sees the irony - except to brush it off as
>1. Rhetoric (no answer needed, an admission of wasting time);
>2. Our error for not knowing he made a squinty-eyed mistake
> (playing the pity card);
>3. A joke (having forgotten one of a bajillion happy faces);
4. His poor choice of words (playing the pity card - 3 of Hearts);

Always room for one more excuse (to be continued).

The challenge continues without upset or serious contest:

>The current is flowing in the SWR meter. DUH!
>
>I would, of course, task any/everyone to find any point along the line
>where the SWR meter does not exhibit current flow for this
>configuration. :-)
>
>Quod Erat Demonstrandum

73's
Richard Clark, KB7QHC

629. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 22:37:20 UTC
From: richardharrison@webtv.net
Message-ID: <20545-44383B20-52@storefull-3253.bay.webtv.net>
Source record: 61371

Richard Clark wrote:
"No current, no SWR."

That exact spot producing an SWR induced voltage cancellation must also have double the voltage of either the forward or reverse wave. Voltage maxima are concurrent with current minima.

Your SWR meter needs to be able to give a good indication at any spot in the line including all maxima and minima.

Best regards, Richard Harrison, KB5WZI

630. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 22:53:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <T9XZf.68212$dW3.36826@newssvr21.news.prodigy.com>
Source record: 61372

Richard Harrison wrote:
> Richard Clark wrote:
> "No current, no SWR."
>
> That exact spot producing an SWR induced voltage cancellation must also
> have double the voltage of either the forward or reverse wave. Voltage
> maxima are concurrent with current minima.
>
> Your SWR meter needs to be able to give a good indication at any spot in
> the line including all maxima and minima.

Yes, what happens if the current sample is zero is that the
forward power indication and reflected power indication are
the same and indeed Vv - Vi = Vv + Vi = Vv. The indicated
forward power and reflected power are equal just as they
should be.

But the trivial point that Richard C. was making is that the
meter movement requires current - true but completely
irrelevant.
--
73, Cecil http://www.qsl.net/w5dxp

631. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-08 23:58:11 UTC
From: w8ji@akorn.net
Message-ID: <1144540691.783872.197170@v46g2000cwv.googlegroups.com>
Source record: 61373

Cecil Moore wrote:
> > Are you actually saying charges flow two directions at the same time
> > and place in any given snapshot of time?

Cecil wrote:

> Water waves flow two directions at the same time using the same
> water molecules. EM waves flow two directions at the same time
> using the same carriers. Waves in a rope travel two directions
> at the same time using the same molecules. It is a common physical
> occurrence. Hint: The carriers of the waves are NOT the same thing
> as the waves.

Current is by definition is the flow of charge.

A current of one coulomb per second is one ampere.

By definition and by physics, we cannot have charges flowing two directions at once at one point. Even if we had some strange mechanism in the conductor allowing this, radiation and the phase of EM fields would be determined by the net charge movement.

This is precisely the current we would measure with a current meter sampling the magnetic field, it is the current we would measure sampling radiation, and it is the current that would determine phase of the radiation or induction field.

So please expain to use, even if we allow a conductor to have TWO voltage gradients of opposite polarity over the same linear area of conductor, why Cecil's Current is important.

Also, tell us how we can measure and prove in a repeatable test, the two-way charge movement exists.

> > The current we would measure at any place with a current indicator and
> > the phase of that current IS the actual current flow.
>
> What direction is that current flowing when its phase is not
> changing relative to the source phase? This is a key question.

Either you are creating diversionary conundrums, or you should be able to explain how we can have charges moving past a point in a single conductor that are moving both directions at one instant of time. Tell us how that happens. Tell us why we suddenly cannot use drift velocity to calculate current, or current to calculate drift velocity.

The almost universal measurement method of current is magnetic. Suddenly Cecil's Theory of Current renders universal measurement

methods obsolete!

NEC uses current and voltage, not wave theory. You attempt to use an engine that uses what you say we can use to prove we are wrong in using current when there are standing waves!

Don't you think you should have understood the NEC engine used in the program before using it to prove we cannot use current without reflections? Eznec uses the very same thing we can measure with a clamp on meter, so it appears you are the one who is doing something wrong.

> > It is impossible to have different currents at each end of the inductor
> > without having displacement currents, or what Reg calls "radial current
> > flow".
>
> We have different currents at each end of a wire quite often
> without having displacement currents. Does having zero amps
> and one point and one amp 1/4WL away mean there's displacement
> current in a transmission line?

Yes, absolutely. If you don't understand that, you'd better review basic transmission lines and quit wasting everyone else's time giving assignments.

>When you figure out the answer
> to that one, you will understand why the coil can have negligible
> displacement current and still have zero amps at one end and
> one amp at the other end, just like the wire or transmission line.

Nonsense Cecil. I'd wager almost everyone here understands transmission lines better than that!

It appears you have wandered off into the land of reflections without also understanding basic circuits. The transmission line can be represented as a network of series inductors and shunt capacitors, just as an antenna (even a single conductor) in space can. The only reason current changes is displacement currents (the electric field) allow current to decrease by providing the third path.

If we stopped that third path, the current would not change.

We can analyze any stub with EXACTLY the same results wave theory produces. Other than imperfect precision in both methods, the results are the same.

The minute any of us start thinking there is only one model, either circuit or wave theory, that works and we cannot fit the other method with the same results, it shows something is wrong. Your model, if you rule out displacement currents, cannot work. Your model, if it requires net current flow that does not register as a magnetic induction field or as a thermal effect, and if the radiation phase and level is not tied to the same ampere-feet we measure with conventional instrumentation, is a fantasy.

Go back to what makes charges move, and explian how thay can move two directions at the same time in a very small crossection of conductor in terms of the wavelength.

Answer the question Cecil, how can we have charge movement over a small length of conductor (in terms of the wavelength) in two directions at the same time, or a drift velocity in two directions at once?

73 Tom

632. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 00:06:55 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <r9CdnaURxrj-zaXZRVny2Q@bt.com>
Source record: 61374

"Cecil Moore" wrote
> Reg Edwards wrote:
> > - - - - and perhaps I should add that I was well aquainted with
the
> > behaviour of transmission lines well before Chipman wrote his
book.
>
> He wrote his book almost 40 years ago, Reg. Do you know
> how old that makes you?

==========

I may be in my 81st year but I DO know how old I am.

If Chipman wrote his book about 40 years ago then I was 40 years old at the time. I have never written any books myself. I have never attached sufficient importance to the subject matter. I educated myself to enable me to do a job which was more interesting than merely writing so-called bibles for a living.

Reg

633. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 00:19:13 UTC
From: Roger D Johnson <n1rj~@adelphia.net>
Message-ID: <44385301.4040506@adelphia.net>
Source record: 61375

Richard Clark wrote:

>
> ********** W R O N G !! **********
>
> No meter movement moves without current!
>
> Ta Dah!

Richard is wrong too! There are electrostatic meter movements.

73, Roger

--
Remove tilde (~) to reply

Remember the USS Liberty (AGTR-5)
http://ussliberty.org/

634. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 01:07:39 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <AOednQkueIF3waXZRVn-gw@adelphia.com>
Source record: 61276

Cecil Moore wrote:
> jpopelish@rica.net wrote:
>
>> The current in the wire must be in one of two directions, since that is
>> the only path the wire can provide.
>
>
> In which direction is that current flowing when its phase
> is unchanging with respect to the source?

At any point along the wire, and at any particular instant, whether as a result of a standing or traveling wave, the current flows in the direction of the wire, one way or the other. Such current does not have a phase. It has a direction. The sinusoidal cycle of variation through time is what has a phase with respect to some reference. The cycle of current in a standing wave, at any point has one of only two phases.

There is also a current at any point that passes between the surface of the wire and the surroundings (capacitive current), but you don't generally measure or describe that current when dealing with antenna elements, transmission lines or coils. You generally quantify only the current in the direction of the wire. But it is the displacement current radial to the wire that is responsible for all variation of current (magnitude and phase) along a conductor.

>> Any conductor with changing voltage has displacement
>> current to ite surroundings.
>
> Which are quite often negligible compared to the effect
> of the phasor addition of forward and reflected currents.

Those wave currents could not travel at nearly the speed of light without the displacement currents. They are what set the wave velocity (in conjunction with the inductance per length). They can never be forgotten when dealing with waves. They allow waves to happen.

> All I am saying is that the displacement current to ground
> is often a secondary effect which can be ignored when only
> primary effects are being considered.

Then you are silly. You cannot describe the reason for wave velocity of a conductor, transmission line or EM wave without displacement current. It would like trying to describe water surface waves without referring to the density of water.

For instance, when there is a standing wave current node, and current is toward that node (charge is piling up), from both sides, where do you think it is going?

There is only one place.

Displacement current into the space around the node.

And at the node where current is instantaneously heading from the node, in both directions (that is what 180 degrees across the node means), simultaneously, there is only one place it can come from. Displacement current from the space around that node.

If you superimpose the graph of standing wave voltage along the line with the graph of standing wave current, you will see that the voltage wave has its peaks at the current nodes, and it is this large voltage swing that is driving the peak displacement current at those points.

So please stop saying that displacement current is negligible in some cases of traveling or standing waves. It is a silly thing to say.

635. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 01:10:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sjng321lug9hsvc7gg58e6d95kpk1dcrij@4ax.com>
Source record: 61277

On Sat, 08 Apr 2006 20:19:13 -0400, Roger D Johnson
<n1rj~@adelphia.net> wrote:
>Richard is wrong too! There are electrostatic meter movements.

********** W R O N G !! **********

Ah! Fresh Meat.

Explain how that movement moves with a charge moving (current!).

Ta Dah!

636. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 01:12:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kong32hsk18cqum6je7tlva7do6sabenbm@4ax.com>
Source record: 61278

On Sat, 08 Apr 2006 22:53:39 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>movement requires current - true but completely irrelevant.

Ta Dah!

the myth of zero (0) current is busted.

637. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 01:14:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9sng32lgfum0vogknpc6gdm9ccnq7ka427@4ax.com>
Source record: 61279

On Sat, 08 Apr 2006 15:30:12 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sat, 08 Apr 2006 10:21:08 -0700, Richard Clark <kb7qhc@comcast.net>
>wrote:
>
>>As usual, the question is nonsense when the picture reveals the
>>answer. Cecil rarely sees the irony - except to brush it off as
>>1. Rhetoric (no answer needed, an admission of wasting time);
>>2. Our error for not knowing he made a squinty-eyed mistake
>> (playing the pity card);
>>3. A joke (having forgotten one of a bajillion happy faces);
>4. His poor choice of words (playing the pity card - 3 of Hearts);
5. true but completely irrelevant (the stupid card);

Always room for one more excuse (to be continued).

The challenge continues without upset or serious contest:

The current is flowing in the SWR meter. DUH!

I would, of course, task any/everyone to find any point along the line
where the SWR meter does not exhibit current flow for this
configuration. :-)

Quod Erat Demonstrandum

73's
Richard Clark, KB7QHC

638. Ground elevated radials?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 01:20:02 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <jlng32pjgnprbk16mg6v6lgsife44fss1b@4ax.com>
Source record: 61280

I am experimenting with insulated radials on a vertical antenna.
They are insulated wires on top of the ground.
I have modeled it with EZNEC but I cannot model the center junction
connected to ground because a one inch wire is too short for a
segment.

It seems to me that the center of the radials should be grounded for
lightning protection and that it will have no effect on the antenna
performance.

Comments please?
John Ferrell W8CCW

639. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 01:32:20 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <QpOdnYmLjIG5-aXZnZ2dnUVZ_vqdnZ2d@adelphia.com>
Source record: 61281

Richard Clark wrote:
> On Sat, 08 Apr 2006 20:19:13 -0400, Roger D Johnson
> <n1rj~@adelphia.net> wrote:
>
>>Richard is wrong too! There are electrostatic meter movements.
>
>
> ********** W R O N G !! **********
>
> Ah! Fresh Meat.
>
> Explain how that movement moves with a charge moving (current!).

Perpetual motion? ;^)

- 73 de Mike KB3EIA -

640. Re: Please explain side lobe statement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 01:37:31 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4438655b$0$1015$39cecf19@news.twtelecom.net>
Source record: 61282

Richard Clark wrote:

> On 8 Apr 2006 10:28:28 -0700, "Ron J" <bigschlong@gmail.com> wrote:
>
>
>>If a
>>side lobe is a minor lobe, then why is it undesirable to have side lobe
>>levels less than -20 dB? Thanks!
>
>
> Hi Ron,
>
> If it were one side lobe, that would be great. If it is several dozen
> minor side lobes, then that is entirely another matter. The antenna
> design is devoting too much power in this aggregate.
>
> 73's
> Richard Clark, KB7QHC

As someone who does a lot of V/UHF antenna design, I'd say that -20 is fine, and less than -20 is generally better if it doesn't screw up the whole pattern, which it seldom does. The aggregate of a lot of -20 is an average of less than -20 across the included angles. For EME, which is pickier than HF, it's fine. I'm not sure what Richard could be talking about.

Now if you want a 6 meter contest antenna for use in the midwest, you do not want very low sidelobes, but that's a different story.

Tom
K0TAR

641. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 01:38:17 UTC
From: w8ji@akorn.net
Message-ID: <1144546697.683464.23350@v46g2000cwv.googlegroups.com>
Source record: 61283

Roger D Johnson wrote:
> Richard is wrong too! There are electrostatic meter movements.
>
> 73, Roger

Roger is wrong too, and Richard is not.

Electrostatic indicators don't measure current or charge movement, they measure voltage or charge displacement.

But what I really want to know is how Cecil can have current flowing both directions at the same instant of time in a single point of single conductor, can dismiss displacement currents as trivial things that can be ignored when they are required to define the most important aspects of transmission or antenna behavior, and say the very thing that is used to measure current suddenly doesn't measure his imaginary two-way reflected and forward current's vector sum.

That's what is really important, especially in light of the fact Cecil is quick to play superior.

Anyone who is really superior should be able to walk us through the physics of two-way current and tell us why dosplacement currents don't matter, and explain his magical transmission lines and antennas without displacement current in a way that we all understand.

73 Tom

642. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 01:59:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8iqg32lph64s7gmd9vd56f1a52nnulbhgq@4ax.com>
Source record: 61286

On Sat, 08 Apr 2006 21:32:20 -0400, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:

>Richard Clark wrote:
>> On Sat, 08 Apr 2006 20:19:13 -0400, Roger D Johnson
>> <n1rj~@adelphia.net> wrote:
>>
>>>Richard is wrong too! There are electrostatic meter movements.
>>
>>
>> ********** W R O N G !! **********
>>
>> Ah! Fresh Meat.
>>
>> Explain how that movement moves with a charge moving (current!).
>
> Perpetual motion? ;^)

It only takes a moment, and a millimeter - Only Cecil could make that
perpetual.

643. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 01:59:44 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44386a91$0$1013$39cecf19@news.twtelecom.net>
Source record: 61284

w8ji@akorn.net wrote:

> Answer the question Cecil, how can we have charge movement over a small
> length of conductor (in terms of the wavelength) in two directions at
> the same time, or a drift velocity in two directions at once?
>
> 73 Tom
>

Tom

Cecil and Co. are not interested in real physics, math, or engineering.
They have made up their own. As I said to Roy, you may as well give up.

Tom
K0TAR

644. Re: Ground elevated radials?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 02:00:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123gqm2par5ela8@corp.supernews.com>
Source record: 61285

John Ferrell wrote:
> I am experimenting with insulated radials on a vertical antenna.
> They are insulated wires on top of the ground.
> I have modeled it with EZNEC but I cannot model the center junction
> connected to ground because a one inch wire is too short for a
> segment.

You can't model a connection to ground except with the MININEC ground type, and that ground type isn't suitable when the model contains low horizontal wires as in a radial system. Therefore, there's no way in EZNEC to model a connection between a low radial system and ground. Any "connection" between the model radials and ground is solely by field coupling, not by ohmic contact. See The Modeling Ground chapter in the Building The Model section of the EZNEC manual for more information.

>. . .

Roy Lewallen, W7EL

645. Re: Please explain side lobe statement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 02:04:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <orqg32dlhnahnf03ks6vh2oouiiei2qa47@4ax.com>
Source record: 61287

On Sat, 08 Apr 2006 20:37:31 -0500, Tom Ring <news0002@taring.org>
wrote:

> I'm not sure what Richard could be talking about.

Hi Tom,

Compare a yagi to a rhomboid.

73's
Richard Clark, KB7QHC

646. Re: Please explain side lobe statement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 02:09:32 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <asqg3293vfgb5vk98lu4c5tsfda7v4es85@4ax.com>
Source record: 61288

On 8 Apr 2006 10:28:28 -0700, "Ron J" <bigschlong@gmail.com> wrote:

>Hello, I have Balanis' Antenna Theory 3rd Edition. I read on page 31 at
>the very last sentence that "Side lobe levels of -20 dB or smaller are
>usually not desirable in most applications."
>
>Why? On the same paragraph it states that "minor lobes represent
>radiation in undesired directions, and they should be minimized." If a
>side lobe is a minor lobe, then why is it undesirable to have side lobe
>levels less than -20 dB? Thanks!

Another possible explanation is that if the main lobe is pointed in a
direction with low ambient noise (eg quiet sky), the last thing you
want to capture is significant power from hot earth (or other high
temperature sources) via minor lobes.

Owen
--

647. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 02:20:10 UTC
From: Roger D Johnson <n1rj~@adelphia.net>
Message-ID: <44386F5A.9070400@adelphia.net>
Source record: 61289

Richard Clark wrote:
> On Sat, 08 Apr 2006 20:19:13 -0400, Roger D Johnson
> <n1rj~@adelphia.net> wrote:
>> Richard is wrong too! There are electrostatic meter movements.
>
> ********** W R O N G !! **********
>
> Ah! Fresh Meat.
>
> Explain how that movement moves with a charge moving (current!).
>
> Ta Dah!

I don't understand your statement. Explanation here:

http://www.tpub.com/neets/book3/7k.htm

73, Roger

--
Remove tilde (~) to reply

Remember the USS Liberty (AGTR-5)
http://ussliberty.org/

648. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 02:23:27 UTC
From: Ed <Huckleberry_REMOVE_@newsguy.com>
Message-ID: <Xns979FC5A8ED09Cspectrumhogstarbandn@198.186.192.196>
Source record: 61290

> i have a paper catalog, don't know about on-line links for them.
>

All the info in your paper catalog is available online at belden.com
. All the original poster has to do is click on " Catalog " , then the
" e-catalog " and then type in his cable type, (RG8X) in the search
window. Belden will then display the one type of RG8X cable they make,
their number 9258. If one then clicks on this number, the complete
specs will be displayed. Just scroll down the specs and one will find
the velocity factor of Belden's RG8X is 82%.

http://bwccat.belden.com/ecat/jsp/Index.jsp?&P1=undefined&P2
=undefined&P3=undefined&P4=undefined&P5=undefined&P6=undefined

Ed K7AAT

649. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 02:24:38 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Gf_Zf.9453$4L1.5444@newssvr11.news.prodigy.com>
Source record: 61291

w8ji@akorn.net wrote:
> Roger D Johnson wrote:
>
>>Richard is wrong too! There are electrostatic meter movements.
>>
>>73, Roger
>
>
>
> Roger is wrong too, and Richard is not.
>
> Electrostatic indicators don't measure current or charge movement, they
> measure voltage or charge displacement.
>
> But what I really want to know is how Cecil can have current flowing
> both directions at the same instant of time in a single point of single
> conductor, can dismiss displacement currents as trivial things that can
> be ignored when they are required to define the most important aspects
> of transmission or antenna behavior, and say the very thing that is
> used to measure current suddenly doesn't measure his imaginary two-way
> reflected and forward current's vector sum.
>
> That's what is really important, especially in light of the fact Cecil
> is quick to play superior.
>
> Anyone who is really superior should be able to walk us through the
> physics of two-way current and tell us why dosplacement currents don't
> matter, and explain his magical transmission lines and antennas without
> displacement current in a way that we all understand.
>
> 73 Tom
>

Cecil can't prove that charge can move in two opposite directions
at once. No one can. It's impossible. He's always had problems with
superposition, believing the constituents of a standing wave have
more reality than the wave itself.
73,
Tom Donaly, KA6RUH

650. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 02:44:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <yy_Zf.9458$4L1.2220@newssvr11.news.prodigy.com>
Source record: 61292

w8ji@akorn.net wrote:
> Current is by definition is the flow of charge.

And two equal EM waves flowing in opposite directions
in the same wire use the same charge carriers.

> By definition and by physics, we cannot have charges flowing two
> directions at once at one point.

A charge carrier cannot be moving in two directions at
the same time. Two currents can certainly exist in opposite
directions at the same time. That's what forward current
and reflected current is. If you want to deny the existence
of forward and reflected current, be my guest.

> This is precisely the current we would measure with a current meter
> sampling the magnetic field, it is the current we would measure
> sampling radiation, and it is the current that would determine phase of
> the radiation or induction field.

Yes, but if it's phase is unchanging, which direction is
it flowing? When the forward current and reflected current
are of equal magnitudes, which direction is the phasor sum
of those two currents flowing?

> So please expain to use, even if we allow a conductor to have TWO
> voltage gradients of opposite polarity over the same linear area of
> conductor, why Cecil's Current is important.

I have told you and W7EL about a dozen times before. One
cannot use standing wave current phase to measure the phase
shift through a wire or through a coil. Any such attempt
will fail. Yet, that is what W7EL has reported as technical
fact for about a year now.

> Also, tell us how we can measure and prove in a repeatable test, the
> two-way charge movement exists.

Please stop implying something that isn't true. There is no
two-way movement of single charge carriers. The current is NOT
the same thing as the charge carriers.

> Either you are creating diversionary conundrums, or you should be able
> to explain how we can have charges moving past a point in a single
> conductor that are moving both directions at one instant of time.

Please cut the BS, Tom. Individual charge carriers don't move in
both directions at the same time. The forward and reflected current

waves move in both directions at the same time, unaware of each
other's presence until they encounter an impedance discontinuity.

It is obvious that you don't understand forward and reflected EM
waves that can exist on a wire or even in free space. Please crack
open a textbook on such. Ramo and Whinnery is a good reference.

> The almost universal measurement method of current is magnetic.
> Suddenly Cecil's Theory of Current renders universal measurement
> methods obsolete!

This is technical discussion and has absolutely nothing to do
with you or me.

> NEC uses current and voltage, not wave theory. You attempt to use an
> engine that uses what you say we can use to prove we are wrong in using
> current when there are standing waves!

How do you explain EZNEC getting the same answer as the distributed
network model at: http://www.qsl.net/w5dxp/travstnd.GIF? And while
you are looking at that graph, please explain how the flat phase
of the standing wave current can be used to measure phase through
a wire or a coil.

> Don't you think you should have understood the NEC engine used in the
> program before using it to prove we cannot use current without
> reflections?

No. EZNEC agrees with the distributed network model. That's all
I need to know about it.

> Yes, absolutely. If you don't understand that, you'd better review
> basic transmission lines and quit wasting everyone else's time giving
> assignments.

Exactly how does the displacement current to ground get outside
of a coax line with no common-mode currents?

> If we stopped that third path, the current would not change.

Assume one amp of forward current and one amp of reflected current
inside a piece of coax with no common-mode current. There's no
third path to ground, yet the standing wave still exists, with
current nodes and current loops. No third path to ground is
required.

> Answer the question Cecil, how can we have charge movement over a small
> length of conductor (in terms of the wavelength) in two directions at
> the same time, or a drift velocity in two directions at once?

Your straw man is noted for all the world to see. A single charge
carrier cannot move in two directions at the same time. But if
you are denying that two EM waves can move in opposite directions
at the same time, please just come right out and assert such.

--
73, Cecil http://www.qsl.net/w5dxp

651. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 02:54:22 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <yH_Zf.9462$4L1.5185@newssvr11.news.prodigy.com>
Source record: 61293

John Popelish wrote:
> At any point along the wire, and at any particular instant, whether as a
> result of a standing or traveling wave, the current flows in the
> direction of the wire, one way or the other. Such current does not have
> a phase. It has a direction.

In what direction is the RMS value of standing wave current flowing?

> Those wave currents could not travel at nearly the speed of light
> without the displacement currents.

You and I are talking about different displacement currents.
I'm talking about displacement current between a transmission
line and the ground. We had previously been talking about
displacement current between a loading coil and ground.

> Then you are silly. You cannot describe the reason for wave velocity of
> a conductor, transmission line or EM wave without displacement current.

How does the displacement current get to ground when it's
inside a shielded piece of coax with no common mode current
on the outside braid?

> Displacement current into the space around the node.

How does the displacement current get past the coax shield
to the outside world?

> So please stop saying that displacement current is negligible in some
> cases of traveling or standing waves.

I'll even say it again. Inside a piece of shielded coax, the
displacement current to ground is negligible yet the standing
wave still exists.
--
73, Cecil http://www.qsl.net/w5dxp

652. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 02:55:44 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <QI_Zf.9463$4L1.5346@newssvr11.news.prodigy.com>
Source record: 61294

Richard Clark wrote:

> Cecil Moore <mycall@hotmail.com> wrote:
>>movement requires current - true but completely irrelevant.
>
> the myth of zero (0) current is busted.

Please tell us about the position and velocity of each
charge carrier, Richard.
--
73, Cecil http://www.qsl.net/w5dxp

653. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:08:10 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <ZMqdnblEEYK05KXZnZ2dnUVZ_vWdnZ2d@adelphia.com>
Source record: 61295

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> Current is by definition is the flow of charge.
>
>
> And two equal EM waves flowing in opposite directions
> in the same wire use the same charge carriers.

At points where those waves cause equal and opposite instantaneous
current, the standing wave current hits zero (is at a node). At all
other points, there is some net instantaneous current that is the
superposition of the current caused by the two waves at that point and
moment in time.

>> By definition and by physics, we cannot have charges flowing two
>> directions at once at one point.
>
>
> A charge carrier cannot be moving in two directions at
> the same time. Two currents can certainly exist in opposite
> directions at the same time.

No. Current is the rate of charge movement. The charge cannot be
moving two directions at a point.

> That's what forward current
> and reflected current is.

Those are forward and reverse waves, not forward and reverse currents.
you are confusing the wave with the water.

> If you want to deny the existence
> of forward and reflected current, be my guest.

I deny it. There is only current at a point, just as there is only
water jiggling around under a wave on the ocean.

>> This is precisely the current we would measure with a current meter
>> sampling the magnetic field, it is the current we would measure
>> sampling radiation, and it is the current that would determine phase of
>> the radiation or induction field.
>
>
> Yes, but if it's phase is unchanging, which direction is
> it flowing?

Phase doesn't indicate the direction charge is flowing (current is going). For both traveling waves and standing waves, charge sloshes back and forth with no average movement over a cycle. The phase of that movement just tells you how that sloshing is timed with respect to the phase reference. The only case where charge moves in one direction (unidirectional current) is DC.

> When the forward current and reflected current
> are of equal magnitudes, which direction is the phasor sum
> of those two currents flowing?

As long as you refer to waves as current, you are never going to get it. Waves travel on current reversals, but he wave is not current.

(snip repetition)

654. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:10:26 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <CW_Zf.9467$4L1.15@newssvr11.news.prodigy.com>
Source record: 61296

w8ji@akorn.net wrote:
> But what I really want to know is how Cecil can have current flowing
> both directions at the same instant of time in a single point of single
> conductor,

Forward and reflected EM waves, of course. Would you like to deny
the existence of the two waves in the following equation?

I(x,t) = I1*cos(kx+wt) + I2*cos(kx-wt) = Io*cos(kx)*cos(wt)

Your lack of math skills is really getting to be embarassing.

> ... can dismiss displacement currents as trivial things that can
> be ignored when they are required to define the most important aspects
> of transmission or antenna behavior,

The only displacement currents that I said were secondary were
the displacement currents to ground. In fact, in a shielded coax
with no common mode current, displacement currents to ground
are literally non-existent, yet the standing wave is still there
inside the coax, with its nodes and loops.

> ... and say the very thing that is
> used to measure current suddenly doesn't measure his imaginary two-way
> reflected and forward current's vector sum.

I didn't say that. I said the standing wave phase cannot be used
to measure the phase through a wire or a coil. That is readily
apparent at: http://www.qsl.net/w5dxp/travstnd.GIF which you
have been avoiding like the plague.

The phase information is there in the standing wave current, but
it is in the magnitude, not the phase. And you have to understand
arc-cosine functions to be able to extract that phase information.

> That's what is really important, especially in light of the fact Cecil
> is quick to play superior.

"Play superior"??? I'm not the arrogant one claiming to be so
omniscient that he is never wrong.

> Anyone who is really superior should be able to walk us through the
> physics of two-way current ...

Already done - please reference the above web page. All the data
is exactly what EZNEC reported. I can lead you to water but I
can't make you drink. If you will tell me what you don't understand
about that web page, I will walk you through it, step by step.

--
73, Cecil http://www.qsl.net/w5dxp

655. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:12:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <tY_Zf.9468$4L1.6312@newssvr11.news.prodigy.com>
Source record: 61297

Tom Ring wrote:

> w8ji@akorn.net wrote:
>> Answer the question Cecil, how can we have charge movement over a small
>> length of conductor (in terms of the wavelength) in two directions at
>> the same time, or a drift velocity in two directions at once?
>>
> Cecil and Co. are not interested in real physics, math, or engineering.
> They have made up their own. As I said to Roy, you may as well give up.

Tom, I learned this stuff at Texas A&M in the 50's and it was
decades old already, having been developed before I was born.
Are you also willing to deny the existence of simultaneous
forward and reflected EM waves?
--
73, Cecil http://www.qsl.net/w5dxp

656. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:15:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8rtg3298invka3b6sncpf8svm8gsi8i6h8@4ax.com>
Source record: 61299

On Sat, 08 Apr 2006 22:20:10 -0400, Roger D Johnson
<n1rj~@adelphia.net> wrote:
>I don't understand your statement. Explanation here:
>
>http://www.tpub.com/neets/book3/7k.htm

Hi Roger,

Yes, I understood. And from your reference:
"The electrostatic meter movement is actually a large variable capacitor in which one set of plates is allowed to move. The movement of the plates is opposed by a spring attached to the plates. A pointer that indicates the value of the voltage is attached to these movable plates. As the voltage increases, the plates develop more torque."

When a current is applied to a capacitor (aka voltage applied, but as we all know, a current moves charge to those plates), there is a force developed between the plates (actually in the dielectric) which is tangential to the plates. This force has the tendency to eject the dielectric. Our usual experience with capacitors is we rarely have enough charge AND enough capacitance to measure this effect.

By making one plate movable, the force of the current flow is expressed in the movement of that plate against a spring (the exact analogue of opposing magnetic fields, one fixed and the other imparted by a continuous current flow).

"To develop sufficient torque, the plates must be large and closely spaced."

That necessary condition of high capacitance; and

" A very high voltage is necessary to provide movement, therefore, electrostatic voltmeters are used only for HIGH VOLTAGE measurement."

enough charge to reveal the force.

Your reference is actually

********** W R O N G !! or at least incomplete **********

because what it is describing with two plates in repulsion is NOT a capacitor (at least not in the conventional sense). This is because the two plates share the same charge (because they are the same conductor), hence the repulsion. Further, as this is a variant on the Leyden Jar, there is another true capacitive plate either in the

nearby structure, or the earth. Otherwise there is no reason for the charge to flow there in the first place.

73's
Dr. Science (actually, he only has a B.A. in English)

657. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:17:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <H1%Zf.9471$4L1.2713@newssvr11.news.prodigy.com>
Source record: 61300

Tom Donaly wrote:
> Cecil can't prove that charge can move in two opposite directions
> at once. No one can. It's impossible.

I agree with you. That topic is just another straw man from
W8JI who is afraid to discuss EM waves moving in opposite
directions at the same time. It's the EM waves that are
moving in opposite directions at the same time, not the
individual charge carriers.

I have seen waves flowing in and flowing out at the same
time in the Pacific Ocean. That doesn't mean that individual
water molecules are moving in two opposite directions at once.

Doesn't it mean you are losing the argument when you have to
make up false stories about what I have said?
--
73, Cecil http://www.qsl.net/w5dxp

658. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:20:29 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <oZGdnRyhLsqR4aXZRVn-uA@adelphia.com>
Source record: 61298

Cecil Moore wrote:
> John Popelish wrote:
>
>> At any point along the wire, and at any particular instant, whether as
>> a result of a standing or traveling wave, the current flows in the
>> direction of the wire, one way or the other. Such current does not
>> have a phase. It has a direction.
>
>
> In what direction is the RMS value of standing wave current flowing?

That's easy. RMS current is an AC measurement of current along the
conductor. Over any integer number of cycles, the total movement of
charge is zero. The current spends half the time going one way, and
half the time going the other way. This applies to both standing and
traveling wave induced currents. The only current that describes a
net movement of charge in a single direction is DC.

>> Those wave currents could not travel at nearly the speed of light
>> without the displacement currents.
>
>
> You and I are talking about different displacement currents.
> I'm talking about displacement current between a transmission
> line and the ground.

If the transmission line is a center conductor in a grounded shield,
then that is what I am talking about. If the transmission line is
balanced, then the displacement current is mostly the current between
the two lines.

> We had previously been talking about
> displacement current between a loading coil and ground.

That's also included in what I am talking about. Ant current caused
by a voltage swing in a conductive surface along the wave path is
included.

>> Then you are silly. You cannot describe the reason for wave velocity
>> of a conductor, transmission line or EM wave without displacement
>> current.
>
> How does the displacement current get to ground when it's
> inside a shielded piece of coax with no common mode current
> on the outside braid?

The shield is the ground potential for the center conductor. If you could mount a tiny current pickup loop between the center conductor and shield, surrounding nothing but the coax dielectric (so you could look through the hole, if you were an observer on the center conductor), that pickup loop would measure a current if there is any voltage wave on the center conductor. That is a displacement current.

>> Displacement current into the space around the node.
>
>
> How does the displacement current get past the coax shield
> to the outside world?

As far as the center conductor is concerned, the shield is the entire universe.

>> So please stop saying that displacement current is negligible in some
>> cases of traveling or standing waves.
>
>
> I'll even say it again. Inside a piece of shielded coax, the
> displacement current to ground is negligible yet the standing
> wave still exists.

You have a blind spot as to where there is current in a coax. Do you deny current through any other capacitor that has voltage swing across it? Then why deny that the capacitance between the center conductor and a carefully surrounding grounded surface separated by a dielectric conducts current when there is voltage swing on the center conductor?

If the coax carries a standing wave, then at the points on the center conductor that are current nodes (for current along the conductor) the capacitive current to the shield is at its peak, because that is where the voltage peaks of the standing wave occur.

659. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:29:05 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <W76dna8B_qqN46XZRVn-vw@adelphia.com>
Source record: 61301

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> But what I really want to know is how Cecil can have current flowing
>> both directions at the same instant of time in a single point of single
>> conductor,
>
>
> Forward and reflected EM waves, of course. Would you like to deny
> the existence of the two waves in the following equation?
>
> I(x,t) = I1*cos(kx+wt) + I2*cos(kx-wt) = Io*cos(kx)*cos(wt)

Those two expressions describe patterns of current over time and location that produce current in each direction half the time (except at nodes, where the current is zero).

The amplitude of a current cycle is constant for the first one (traveling wave), but the phase differs at different locations (by the amount of kx).

The amplitude of current cycle described by the second one (traveling wave) varies with location, and the phase has only two possibilities (one when cos(kx) is positive and 180 degrees different when cos(kx) is negative). But in both cases, current at any point reverses twice a cycle (cos(wt)) and charge goes nowhere over a cycle.

660. Re: Feeding 2 VHF Yagis from one coax?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:30:38 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <K_CdnUHA6Kh84qXZnZ2dnUVZ_t2dnZ2d@bright.net>
Source record: 61302

Oh yes, I forgot about those things! I have one for 2M and 432 and it
works quite well. This idea is just for a temporary set up. The new
tower should be going up this summer...this idea was just to get me by
until then...

Scott
N0EDV

Allison-nospam@nouce.bellatlantic.net wrote:

> On Sat, 08 Apr 2006 11:02:06 +0000, Scott <acepilot@bloomer.net>
> wrote:
>
>
>>I have a temporary tower set up with a 6M yagi on it. I'd like to add a
>>2M yagi. Is it possible to feed the two antennas with one feedline
>>similar to feeding multiple HF antennas with one feedline?
>>
>>
>>
>>Coax from Shack RG-8 RG-8
>>=========================T============2M Yagi
>> I
>> I RG-8
>> I
>> 6M Yagi
>>
>>So basically, I would add a T connector at the 6M Yagi and run another
>>piece of RG-8 from the T to the 2M Yagi (the T connector would have a
>>male PL-259 on one port connected directly to the 6M Yagi, the other 2
>>ports are female UHF and one would be connected to coax from shack and
>>the other would have the jumper to the 2M antenna). Now the $64K
>>question...should the run of RG-8 from the T to the 2M be a certain
>>length, such as 1/4 or 1/2 Wavelength at one of the bands and if so
>>which band? i.e., 1/2 wavelength at 6M or 1/4 wavelength at 2M, etc.
>>Both antennas use a gamma match as the feed, so the short section of
>>coax seems like it might be perceived as a open-ended stub attached to
>>the 6M antenna??? This is for high speed meteor scatter, so I'm not
>>overly concerned if the antenna patterns get a bit screwed up...
>>
>>Scott
>>N0EDV
>
>
> What you need is called a Diplexor. Diplexors can be implemented in

> many ways (using coax sections s only one). Their goal is to keep
> the signal on one path seperated from another. However they introduce
> small measurable losses and that may not suit your scatter work.
>
> I've built and used diplexors for 145/437 (sats) use to deal with the
> two antennas one coax connection of some deal band radios.
>
> As to patterns, if the antennas are seperated enough there would be
> little effect.
>
> Myself I prefer two coax as the losses are lowest. Second best is
> coax relays at both ends (you still incur connector losses) . Third
> best is Diplexor as there are losses through a diplexor and isolation
> limits.
>
> Thats the short version.
>
> Allison
>
>
> Allison
>

661. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:31:51 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <1f%Zf.118$1C4.14@fe09.lga>
Source record: 61304

Yuri wrote:
> You agree that impedance along the radiator changes, being low at the
> bottom, around tens of ohms, to being high at the top, around thousands of
> ohms.

)Tom replied:
)I never said that. What do you mean by reactance? The X can be very
)high but radiation resistance very low even near the open end.

I really give up. What's the point. This is a typical example of Tom's response to technical argument or trying to go step by step. I am talking impedance, he "knows" I mean reactance. As I said, I get better response from a brick wall.
No wonder he duntgetit! Oh well!

73, Yuri, K3BU

662. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:31:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Pe%Zf.9474$4L1.3641@newssvr11.news.prodigy.com>
Source record: 61303

John Popelish wrote:
>> If you want to deny the existence
>> of forward and reflected current, be my guest.
>
> I deny it. There is only current at a point, just as there is only
> water jiggling around under a wave on the ocean.

Well, that means denial of the distributed network model.
I've been waiting for that to happen. There's no point
continuing an argument with someone who denies one of
the cornerstones of EM wave theory.

The distributed network model is accepted as a superset
of the lumped circuit model and works when the lumped
circuit model fails.

The fact remains that standing wave current phase cannot
be used to measure phase delay through a wire or through
a coil. There is no phase information in standing wave
current phase.
--
73, Cecil http://www.qsl.net/w5dxp

663. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:37:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hk%Zf.9478$4L1.6405@newssvr11.news.prodigy.com>
Source record: 61305

John Popelish wrote:
> As far as the center conductor is concerned, the shield is the entire
> universe.

My point exactly! There is no third path to the outside
world but the standing waves do exist inside the coax
without it.
--
73, Cecil http://www.qsl.net/w5dxp

664. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:45:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jq0h32p8o6m81e192md2lad8cnqhsvjq3v@4ax.com>
Source record: 61306

On Sun, 09 Apr 2006 02:55:44 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Please tell us about the position and velocity of each
>charge carrier, Richard.

-no-

665. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 03:58:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0e1h325atvp6h4v26ds865ssktn1mqguim@4ax.com>
Source record: 61307

On Sun, 09 Apr 2006 03:31:59 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>There's no point continuing an argument

The triumph of hope over experience.

.... haven't we been here before? And then to continue on to the
triumph of experience over hope?

Stay tuned for another episode of "Disparate Old Housewives"

666. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 04:06:52 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <OLOdnWzflvZlG6XZnZ2dnUVZ_tednZ2d@adelphia.com>
Source record: 61308

Cecil Moore wrote:
> John Popelish wrote:
>
>> As far as the center conductor is concerned, the shield is the entire
>> universe.
>
>
> My point exactly! There is no third path to the outside
> world but the standing waves do exist inside the coax
> without it.

But from the concept of a standing wave producing a current distribution along the center conductor, the shield performs the function of ground. One current path is along the center conductor (in one of two directions) and the other current path is through the dielectric to the shield, in proportion to the rate of change of voltage at any point on the center conductor.

If you eliminate the shield and have a single wire carrying a standing wave over a distant ground, the capacitance per foot drops (raising the characteristic impedance of the transmission line, and losing energy to EM waves, but the displacement current is still there in proportion to the capacitance per foot and the rate of charge of voltage. There is nothing inherently different. Only the loss and ratio of L/C per foot changes.

667. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 04:10:15 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <HO%Zf.13842$tN3.5987@newssvr27.news.prodigy.net>
Source record: 61309

Richard Clark wrote:
> Cecil Moore <mycall@hotmail.com> wrote:
>>There's no point continuing an argument
>
> The triumph of hope over experience.

When one rejects the distributed network model,
one must also reject Maxwell's equations. That
seems like a religious act to me, not a technical
choice.
--
73, Cecil http://www.qsl.net/w5dxp

668. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 04:24:18 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <S%%Zf.13844$tN3.2573@newssvr27.news.prodigy.net>
Source record: 61310

John Popelish wrote:
> But from the concept of a standing wave producing a current distribution
> along the center conductor, the shield performs the function of ground.

But that is irrelevant. The relevant fact is that there is NO
third path to ground yet the standing waves exist anyway.

That seems to indicate that the displacement current path
to outside world ground is a secondary consideration compared
to the superposing of the forward and reflected waves.

If you are prepared to reject the distributed network model,
are you also prepared to reject Maxwell's equations?

Please note that rejection of the distributed network
model leaves you with only a model known to fail under
certain conditions.

In any case, you haven't explained how the unchanging
phase in a standing wave current can be used to measure
phase shift through a wire or a coil. EZNEC says it
is not a valid approach at:

http://www.qsl.net/w5dxp/travstnd.GIF
--
73, Cecil http://www.qsl.net/w5dxp

669. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 04:33:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <d-qdndnoaKhoE6XZnZ2dnUVZ8tOdnZ2d@bt.com>
Source record: 61311

```
> My experience is that the velocity factor of foam dielectric cable
like
> RG8X varies considerably from batch to batch and manufacturer to
> manufacturer. Apparently they have poor control over the foam
density in
> the manufacturing process. For any application where it really
matters,
> you really have to measure it for the particular piece of cable
you'll
> be using.
>
> Roy Lewallen, W7EL
==================================

And the same applies to impedance Zo and attenuation.
----
Reg.
```

670. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 04:44:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Qi0_f.64108$H71.21951@newssvr13.news.prodigy.com>
Source record: 61312

John Popelish wrote:
> Cecil Moore wrote:
>> If you want to deny the existence
>> of forward and reflected current, be my guest.
>
> I deny it. There is only current at a point, just as there is only
> water jiggling around under a wave on the ocean.

There is only water juggling under two or more waves in the
ocean. Anyone who has stood on the beach has observed ocean
waves moving in opposite directions.

Your assertion is easy to disprove. In the following example,
the two sources have identical outputs and are phase locked.
They are each equipped with circulators and 50 ohm loads.

Source1---------------50 ohm coax------------------Source2

There is current flowing from Source1 heating up Source2's
load resistor to the tune of I1^2*R. There is current
flowing from Source2 heating up Source1's load resistor
to the tune of I2^2*R. Your denial seems to be a denial
of reality and more of a religious gut feeling than anything
else.

If you disconnect Source2 completely in the example above
the conditions will be the same except Source1 will be
dissipating its own power after a round trip to the open
end and back by the energy waves.

Incidentally, in the double source example above, which
direction is the standing wave current flowing? How could
its unchanging phase be used to measure the electrical
length of the coax?
--
73, Cecil http://www.qsl.net/w5dxp

671. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 04:46:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Ek0_f.64109$H71.39607@newssvr13.news.prodigy.com>
Source record: 61313

Reg Edwards wrote:
> And the same applies to impedance Zo and attenuation.

How much could the Z0 vary for "50 ohm" coax?
--
73, Cecil http://www.qsl.net/w5dxp

672. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 05:17:26 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <9pWdnYl3htToCqXZ4p2dnA@adelphia.com>
Source record: 61314

Cecil Moore wrote:
> John Popelish wrote:
>
>>> If you want to deny the existence
>>> of forward and reflected current, be my guest.
>>
>>
>> I deny it. There is only current at a point, just as there is only
>> water jiggling around under a wave on the ocean.
>
>
> Well, that means denial of the distributed network model.

Please don't be silly. Distributed networks have points. An infinite
number of them. Calculus is used to smoothly move through this
infinity of points. But at any particular point, current is defined
as the rate of movement of charge past that point.

> I've been waiting for that to happen. There's no point
> continuing an argument with someone who denies one of
> the cornerstones of EM wave theory.

So you deny that there are any points (where voltage can be defined or
that charge passes) in all distributed networks?
How strange.

> The distributed network model is accepted as a superset
> of the lumped circuit model and works when the lumped
> circuit model fails.

Yes. And distributed networks are made of a continuum of points.

> The fact remains that standing wave current phase cannot
> be used to measure phase delay through a wire or through
> a coil. There is no phase information in standing wave
> current phase.

Yes. That fact remains.
It is a non sequitur in the above discussion, however.

That the standing wave current cycle has the same phase along a half
wavelength of conductor has nothing to do with the current through
that conductor having a point definition (the x in the standing wave
function you keep displaying). And at any point the current is AC,
spending half of the time going one way, and half of the time going
the other way (the positive and negative parts of the cycle in time,
defined by cos(kx)*cos(wt), once you pick and x.

673. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 05:40:42 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <Lr-dncUvOKJ0AaXZnZ2dnUVZ_smdnZ2d@adelphia.com>
Source record: 61315

Cecil Moore wrote:
> John Popelish wrote:
>
>> But from the concept of a standing wave producing a current
>> distribution along the center conductor, the shield performs the
>> function of ground.
>
>
> But that is irrelevant. The relevant fact is that there is NO
> third path to ground yet the standing waves exist anyway.
>
> That seems to indicate that the displacement current path
> to outside world ground is a secondary consideration compared
> to the superposing of the forward and reflected waves.

To the center conductor, carrying the standing wave, the shield is the outside world. If there is no shield, the outside world is the outside world, as far as displacement current goes. Do you imagine this current changes in some way other than magnitude and wave velocity when you wrap a shield around a wire carrying a standing wave?

> If you are prepared to reject the distributed network model,
> are you also prepared to reject Maxwell's equations?

I am prepared to do no such thing. I am explaining distributed network theory to you.

> Please note that rejection of the distributed network
> model leaves you with only a model known to fail under
> certain conditions.

Just because I talk about current and voltage at points does not mean I am limited to lumped (idealized) networks. Distributed networks are made of points, too.

> In any case, you haven't explained how the unchanging
> phase in a standing wave current can be used to measure
> phase shift through a wire or a coil. EZNEC says it
> is not a valid approach at:
>
> http://www.qsl.net/w5dxp/travstnd.GIF

And I have agreed with that. Why do you keep bringing it up?

You are sounding like someone with an obsession. Perhaps you need some down time to let this rattle around in your subconscious.

Sometime I'll tell you the dream I had, in which I was a capacitor.
Woke up in a cold sweat with an understanding of something fundamental
about capacitors I had been stuck on.

674. Re: Vertical Fibre-glass antenna for 10-12-15-20 meter ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 05:46:56 UTC
From: Torbj&#65533;rn Morka <torb-rom@online.no>
Message-ID: <vMWdnZE6B_tNAqXZRVnzvA@telenor.com>
Source record: 61316

"Kenneth Grimm" <kgrimm@adelphia.net> skrev i melding
news:4u4b3255qj6mprb8l5k80bdif7hnpmb7bn@4ax.com...
> On Sat, 1 Apr 2006 17:56:18 +0200, "Torbj&#65533;rn Morka"
> <torb-rom@online.no> wrote:
>
>>Length apx 7 meters, with radials, no tuner needed, to be mounted on a
>>piece
>>of steelpipe. Any shops or dealer who sells such ?
>>
>>Torbjorn.
>>la6wla.
>>
>
> Perhaps the Force 12 Sigma 5, 5-band vertical dipole would meet your
> needs and include 17 meters too.
>
> Ken
> K4XL

Nice, :)

Seems like a cheap one too..
Many thanx..

T.

675. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 05:53:15 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <puednUNVfKJHAqXZnZ2dnUVZ_umdnZ2d@adelphia.com>
Source record: 61317

Cecil Moore wrote:
> John Popelish wrote:
>
>> Cecil Moore wrote:
>>
>>> If you want to deny the existence
>>> of forward and reflected current, be my guest.
>>
>>
>> I deny it. There is only current at a point, just as there is only
>> water jiggling around under a wave on the ocean.
>
>
> There is only water juggling under two or more waves in the
> ocean. Anyone who has stood on the beach has observed ocean
> waves moving in opposite directions.

So waves can move in one or more directions while any bit of water
moves only locally. Same with charge.

> Your assertion is easy to disprove. In the following example,
> the two sources have identical outputs and are phase locked.
> They are each equipped with circulators and 50 ohm loads.
>
> Source1---------------50 ohm coax------------------Source2

Got it.

> There is current flowing from Source1 heating up Source2's
> load resistor to the tune of I1^2*R.

There is energy heating the load resistor. The current does not come
through the source. It is created at the end of the line by the
traveling energy wave. The charge that makes up the current passing
back and forth through the load to produce the heat does not come from
the source. It comes from the load itself and and the nearby part of
the line (within less than a 1/2 wavelength). That charge is caused
to move by the energy in the wave.

> There is current
> flowing from Source2 heating up Source1's load resistor
> to the tune of I2^2*R.

No, for the same reason. The current is local to the end of the line
near the load. It is not current that travels the length of the line
from source to load, but the energy in the wave, just as the water

from the underwater landslide is not what washes up on the beach a
hundred miles away. Local water is pushed up on the beach by the
energy in the traveling wave that connects the landslide with the beach.

> Your denial seems to be a denial
> of reality and more of a religious gut feeling than anything
> else.

My denial is a recognition that current does not connect the source to
the load, traveling energy waves do, however. Local current carries
that wave along the line.

> If you disconnect Source2 completely in the example above
> the conditions will be the same except Source1 will be
> dissipating its own power after a round trip to the open
> end and back by the energy waves.

Yes, its wave energy will return to the source and cause current local
to the source to pass through that load.

> Incidentally, in the double source example above, which
> direction is the standing wave current flowing?

At any point that is not a node, back and forth, every cycle. At
nodes, back and forth across the dielectric of the line.

> How could
> its unchanging phase be used to measure the electrical
> length of the coax?

You measure the difference of the node positions, with and without the
coil. The shift in distance (in wavelengths) between the two nodes
that straddle the coil is the phase shift of the coil for each of the
traveling waves that make up the standing wave.

676. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 07:28:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3rdh32p0m2s28coh4bpgcmk37mdnmbas81@4ax.com>
Source record: 61318

On Sun, 09 Apr 2006 04:10:15 GMT, Cecil Moore <mycall@hotmail.com>
wrote:
>That seems like a religious act to me, not a technical choice.

seeming again?

677. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 08:38:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123hi0fb91l66ab@corp.supernews.com>
Source record: 61319

John Popelish wrote:
> Cecil Moore wrote:
>> John Popelish wrote:
>>
>>> At any point along the wire, and at any particular instant, whether
>>> as a result of a standing or traveling wave, the current flows in the
>>> direction of the wire, one way or the other. Such current does not
>>> have a phase. It has a direction.
>>
>>
>> In what direction is the RMS value of standing wave current flowing?
>
> That's easy. RMS current is an AC measurement of current along the
> conductor. Over any integer number of cycles, the total movement of
> charge is zero. The current spends half the time going one way, and
> half the time going the other way. This applies to both standing and
> traveling wave induced currents. The only current that describes a net
> movement of charge in a single direction is DC.

I see that Cecil is still having trouble with RMS, as well as with current. Otherwise he couldn't have come up with the nonsense question

>> In what direction is the RMS value of standing wave current flowing?

The RMS value of current doesn't flow. Charge flows, and current is the rate at which it flows. RMS is one way of expressing the magnitude of a time-varying current. In a steady state environment of pure sinusoidal waveforms, any current can be expressed as Ipk * cos(wt + phi) where Ipk is the peak value of the current, w (omega) is the rotational frequency, and phi is the phase angle. This gives you precisely the value of current at any instant in time, t. You can equally well express it as Irms * cos(wt + phi) where Irms is the RMS value of the current. Nothing is lost or gained by choosing one convention or the other, and using RMS doesn't require abandoning the time varying or phase information. (In EZNEC I chose to use RMS; NEC uses peak. They differ only by a constant factor of the square root of 2. Both report phase angle along with amplitude.) In either case, if you know or assume w, the current at any instant is known if you know phi and either Ipk or Irms.

A point of clarification to John's posting:

When a standing wave exists on a transmission line, the phase of the voltage or current is fixed (other than periodic phase reversals) with position only if the end of the line is open or short circuited. Otherwise, the phase of voltage and current will change with position.

Roy Lewallen, W7EL

678. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 08:47:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123hihe4ed6bm94@corp.supernews.com>
Source record: 61320

John Popelish wrote:
> Cecil Moore wrote:
>> w8ji@akorn.net wrote:
>>
>>> But what I really want to know is how Cecil can have current flowing
>>> both directions at the same instant of time in a single point of single
>>> conductor,
>>
>>
>> Forward and reflected EM waves, of course. Would you like to deny
>> the existence of the two waves in the following equation?
>>
>> I(x,t) = I1*cos(kx+wt) + I2*cos(kx-wt) = Io*cos(kx)*cos(wt)
>
> Those two expressions describe patterns of current over time and
> location that produce current in each direction half the time (except at
> nodes, where the current is zero).
>
> The amplitude of a current cycle is constant for the first one
> (traveling wave), but the phase differs at different locations (by the
> amount of kx).
>
> The amplitude of current cycle described by the second one (traveling
> wave) varies with location, and the phase has only two possibilities
> (one when cos(kx) is positive and 180 degrees different when cos(kx) is
> negative). But in both cases, current at any point reverses twice a
> cycle (cos(wt)) and charge goes nowhere over a cycle.

I hope you guys realize that the stated equation is correct only when I1
= I2. Otherwise the solution is a sine or cosine function with a phase term.

Roy Lewallen, W7EL

679. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 09:31:56 UTC
From: BKR <TAKEOUTTHISPARTrchvid7@lycos.comREMOVE>
Message-ID: <4438d481$1@nntp.zianet.com>
Source record: 61321

Roy is right. You must meaure your cable to be sure.
The stuff I have now calculates to .73 using a regular MFJ analyzer.

Roy Lewallen wrote:
> My experience is that the velocity factor of foam dielectric cable like
> RG8X varies considerably from batch to batch and manufacturer to
> manufacturer. Apparently they have poor control over the foam density in
> the manufacturing process. For any application where it really matters,
> you really have to measure it for the particular piece of cable you'll
> be using.
>
> Roy Lewallen, W7EL
>
> AK wrote:
>
>> Is 78% the correct velocity factor for RG8X coax?
>>

680. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 10:01:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <Pv6dnRAGLIomRqXZnZ2dnUVZ8tKdnZ2d@bt.com>
Source record: 61322

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Ek0_f.64109$H71.39607@newssvr13.news.prodigy.com...
> Reg Edwards wrote:
> > And the same applies to impedance Zo and attenuation.
>
> How much could the Z0 vary for "50 ohm" coax?
> --
==========

For coax, Zo = 60 * VF * Ln(D / d)

So Zo varies as VF varies.

You'll just have to measure VF or Zo.

Similar for attenuation.

Reg.

681. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 11:43:44 UTC
From: w8ji@akorn.net
Message-ID: <1144583024.698268.212720@z34g2000cwc.googlegroups.com>
Source record: 61323

Yuri Blanarovich wrote:
> Yuri wrote:
> > You agree that impedance along the radiator changes, being low at the
> > bottom, around tens of ohms, to being high at the top, around thousands of
> > ohms.
>
>)Tom replied:
>)I never said that. What do you mean by reactance? The X can be very
>)high but radiation resistance very low even near the open end.
>
> I really give up. What's the point. This is a typical example of Tom's
> response to technical argument or trying to go step by step. I am talking
> impedance, he "knows" I mean reactance. As I said, I get better response
> from a brick wall.
> No wonder he duntgetit! Oh well!

Yuri,

Part of communicating is understanding the words the other person is
using. I'm only trying to understand what you intend the words you use
mean.

Please don't blame me for trying to sort out what you are saying. If
you mean "reactance", say "reactance" and not "impedance". If you mean
"through", say "through" and not "across".

When you use "across", I guessed and thought you really meant "through"
or "at each end".

When you used "impedance", I couldn't guess and figure out if you meant
the scalar impedance, vector impedance, resistance, reactance, or what.
It could mean too many things.

73 Tom

682. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 11:44:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <wfydnUZEQLufaaXZnZ2dnUVZ8s2dnZ2d@bt.com>
Source record: 61324

Cec,

Alternatively, place orders for one or two reels of coax with all USA, Japanese, Chinese, Korean, German, French, Russian, British cable manufacturers.

When your back yard is stacked high with full cable reels, cut off a measured length of cable from each real, lay them in straight lines on the ground and measure the velocity factors using a hand-held antenna analyser at around 10 MHz. You will also need a good steel measuring tape and a sharp cable cutter. Don't use an axe!

Discard outliers of the distribution - they are probably faulty. Use your pocket calculator to find the average, max and min, and the standard deviation and you will have the answer to your question.

Then set up a shop.

But I'll save you the trouble and make an uninformed guess. The Standard Deviation will be around 4 percent of the VF with the 3-Sigma limits at plus and minus 12 percent.

Reg.

683. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 11:54:35 UTC
From: w8ji@akorn.net
Message-ID: <1144583675.417206.183420@t31g2000cwb.googlegroups.com>
Source record: 61325

AK wrote:
> Is 78% the correct velocity factor for RG8X coax?

NO.

RG-8X is really not an RG cable, and has no manufacturing standard.

Foamed cables can vary from near .7 vF all the way to near .9 vF

The manufacturer normally adjusts the ratio of air to dielectric to get the correct impedance. Since RG8X has no standard dimensions or conductor diameters, and it has no standard impedance range, the vF will vary all over the place.

RG8X is normally a much denser foam (less air) than other foam cables. The RG8X cable I have is in the low .7 range as measured on a network analyzer. I've never found any with higher than the upper .7 range.

Since there is no manufacturing standard (meaning it is NOT really suitable for an RG number) you should measure the cable.

73 Tom

684. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 11:54:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <dC6_f.57118$F_3.14812@newssvr29.news.prodigy.net>
Source record: 61226

John Popelish wrote:

From an earlier posting: > For example, if we took a snapshot of the
current, all along the line at the moment it peaked it might look like
this:(length of arrow represents current magnitude, and head shows
direction)(view in fixed width font)
>
> ....---> ---> --> -> <- <-- <--- <--- <-- <- -> -->......
> hole--------------------50 ohm coax--------------------hole
x y
There is a standing wave current node at 'x' and a standing
wave current antinode (loop maximum) at 'y'. Let's say we
installed coils at those two points

....---> ---> --> -> <- <-- <--- <--- <-- <- -> -->......
hole--------------/////----50 ohm coax----/////------hole
x y
Now we have current flowing into both ends of the coil
located at 'x' and current flowing out of both ends of
the coil at 'y'. How does the lumped circuit model handle
that situation?

Continuing with this posting:
> Please don't be silly. Distributed networks have points. An infinite
> number of them. Calculus is used to smoothly move through this infinity
> of points. But at any particular point, current is defined as the rate
> of movement of charge past that point.

No argument, but that is instantaneous current and that is NOT
the subject of this discussion. We are discussing the RMS phasor
value of current used by W8JI and W7EL for their measurements
and reported by EZNEC as in the graphic at:

http://www.qsl.net/w5dxp/travstnd.GIF

Please look at the standing wave current phase and tell us how
that flat phase curve can be used to measure the phase shift
in a wire or coil.

The current reported by EZNEC and measured by W8JI and W7EL is
NOT instantaneous current. It is RMS current. Instantaneous
current is completely irrelevant to this discussion.

>> I've been waiting for that to happen. There's no point
>> continuing an argument with someone who denies one of
>> the cornerstones of EM wave theory.
>

> So you deny that there are any points (where voltage can be defined or
> that charge passes) in all distributed networks?
> How strange.

:-) You have your points confused. I was talking about a logical
point. Here, let me translate for you. There's no *reason* to
continue an argument with someone who denies one of the
cornerstones of EM wave theory. John, is English your native
language? For the record, I did NOT deny the existence any
physical points!!!

>> The fact remains that standing wave current phase cannot
>> be used to measure phase delay through a wire or through
>> a coil. There is no phase information in standing wave
>> current phase.
>
> Yes. That fact remains.
> It is a non sequitur in the above discussion, however.

Whoa there, John, it is the entire reason for this discussion.
W7EL used that standing wave current phase to try to measure
phase shift through a coil. If there is no phase information
in standing wave current phase, then his entire argument
falls apart and he is back to square one with his flawed
lumped circuit model.
--
73, Cecil http://www.qsl.net/w5dxp

685. Re: Ground elevated radials?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 12:02:46 UTC
From: w8ji@akorn.net
Message-ID: <1144584166.890970.42760@g10g2000cwb.googlegroups.com>
Source record: 61227

John Ferrell wrote:
> I am experimenting with insulated radials on a vertical antenna.
> They are insulated wires on top of the ground.
> I have modeled it with EZNEC but I cannot model the center junction
> connected to ground because a one inch wire is too short for a
> segment.
>
> It seems to me that the center of the radials should be grounded for
> lightning protection and that it will have no effect on the antenna
> performance.

Why insulate radials that are lying in or on the ground?
What would that do?

If you insulated them, why would you then ground them with a rod?
Why not just use bare wire and be done with it?

Why would you use a model, when the model makes many assumptions about
the earth that likely are not true for your particular soil?

I guess what I am asking is what you are trying to learn or trying to
do?

73 Tom

686. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 12:11:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <iS6_f.57119$F_3.6347@newssvr29.news.prodigy.net>
Source record: 61228

John Popelish wrote:
> To the center conductor, carrying the standing wave, the shield is the
> outside world. If there is no shield, the outside world is the outside
> world, as far as displacement current goes. Do you imagine this current
> changes in some way other than magnitude and wave velocity when you wrap
> a shield around a wire carrying a standing wave?

No, that is your point, not mine. My point is that displacement
current to real ground is non-existent outside of a coax shield
(unless common mode current exists) and that it is usually a
secondary effect if the coax shield doesn't exist. The primary
reason for the variation in standing wave current along the line
is the phasor sum of the forward and reflected wave phasors that
are rotating in opposite directions. Do you understand phasor
addition? 1 at zero + 1 at 180 deg = zero at a standing wave
node? Displacement current to real ground doesn't cause that.

> I am explaining distributed network theory to you.

:-) How? By denying the existence of the individual H-fields
in forward and reflected EM waves? Now, that's really funny.

>> http://www.qsl.net/w5dxp/travstnd.GIF
>
> And I have agreed with that. Why do you keep bringing it up?

Because that's the whole point of this discussion. If you
agree with that, there is no reason to continue. I just
don't care about instantaneous current, Brownian motion, or
the exact location and velocity of every electron carrier.
There's too much uncertainty involved.
--
73, Cecil http://www.qsl.net/w5dxp

687. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 12:57:01 UTC
From: AK <nomail@aol.com>
Message-ID: <xw7_f.915815$xm3.626026@attbi_s21>
Source record: 61229

All the info is very interesting. Thanks folks.

Just want to make two 50-ohm 1/4-wave section lengths to transform the impedance of two linear-loaded 40 meter verticals (spaced 1/4 wave) from around 32 ohms to about 75 ohms, and then extend the cable from the "director" vertical element with another 1/4-wave with 75 ohm coax for the 90/90 phasing. Then I just "tee" the two feedpoints together to get one common feed point that's close to 50 ohms. Have done this previously with good results, and had a much better than expected match to the 50-ohm transmitter feedline. The last time I did this, I used fence wire that was staked into some flat farmland turf for the ground system. This time I will have to create an artificial ground plane or counterpoise, as the present mountain terrain does not lend itself well for creating a good low-loss real-ground system. Still have my old RG-11 matching section for the one 75-ohm coax 1/4-wave extension cable, but the two RG-8 sections are no longer around. So, thought I would use the smaller and cheaper RG8X this time. Maybe I won't. HI
AK

688. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 13:10:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pJ7_f.68315$dW3.28923@newssvr21.news.prodigy.com>
Source record: 61230

John Popelish wrote:
> So waves can move in one or more directions while any bit of water moves
> only locally. Same with charge.

My point exactly. I'm glad you agree.

> There is energy heating the load resistor. The current does not come
> through the source. It is created at the end of the line by the
> traveling energy wave.

The H-field energy in the load originated in the source. Current
is directly proportional to the H-field in the EM wave. Let me
quote Ramo and Whinnery:

I = e^jwt/Z0[(V+)(e^-jwz/v) - (V-)(e^jwz/v)]

This is the *continuous* equation for source current at
z = 0 and load current at z = (distance). Essentially the
same equation is found in every reference on transmission
lines.

They don't say current is "created" at the load. They say
current is a *continuous single-valued function* between
source and load. Do you have a reference for your "creation"
of current?

That the H-field experiences a delay and transformation on its
way to the load doesn't mean that current is magically created
out of thin air at the load.

Hang some modulation on the current at the source. You will
measure that modulation arriving at the load in the form of
current exactly in accordance with the laws of physics
embodied in the distributed network model.

In a DC circuit, is the current also "created" at the load?

> My denial is a recognition that current does not connect the source to
> the load, ...

Then by all means, disconnect the source and keep the current.
Anything is possible in your mind. Just don't expect that to
work in reality.

>> How could
>> its unchanging phase be used to measure the electrical
>> length of the coax?
>

> You measure the difference of the node positions, with and without the
> coil. The shift in distance (in wavelengths) between the two nodes that
> straddle the coil is the phase shift of the coil for each of the
> traveling waves that make up the standing wave.

Someone needs to tell that to W7EL. I've tried to tell him but
instead of thanking me, he 'ploinked' me.
--
73, Cecil http://www.qsl.net/w5dxp

689. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 13:12:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <1L7_f.68316$dW3.53978@newssvr21.news.prodigy.com>
Source record: 61231

Richard Clark wrote:

> Cecil Moore <mycall@hotmail.com> wrote:
>>That seems like a religious act to me, not a technical choice.
>
> seeming again?

Yes, that way I am the owner of the thought, unlike other
people who like to engage in mind fornication using
someone else's mind.
--
73, Cecil http://www.qsl.net/w5dxp

690. vert distortion?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 13:18:18 UTC
From: ml <m@di.net>
Message-ID: <m-51EAB2.09181409042006@news.verizon.net>
Source record: 61232

hi

i've noticed a few installations of say a 2m beam vertically mounted to
a regular metal tv style mast

from looking at it, you have the mast(metal) going between 2 elements
and longer than the elements

so i was wondering as this is a common mounting style and method

how bad is the beam pattern for rx and tx ? effected by the metal mast?

it also got me thinking i've noteced some beams as in the above use a
fiberglass boom while others use metal

how does this effect patterns and efficiency

both from a practical point of view and technically speaking

???

thanks

691. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 13:22:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sU7_f.68318$dW3.62021@newssvr21.news.prodigy.com>
Source record: 61233

Roy Lewallen wrote:
> The RMS value of current doesn't flow.

I'm glad you agree. That is what I have been telling
you for about a year now. Obviously, my question was
rhetorical.

Your assertion sure shoots down your and W8JI's argument
that current flows into the bottom of the coil and out of
the top of the coil, doesn't it? You guys reported measuring
RMS current flowing into the bottom of the coil and out
the top. Now you deny that the current you measured was
flowing at all. I would say we are making progress.

I have been very careful to talk about the standing wave
current *at* the bottom and *at* the top of the coil, not
about the current *flowing* into the bottom of the coil
and out the top of the coil as you and W8JI have.
--
73, Cecil http://www.qsl.net/w5dxp

692. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 13:26:38 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <iY7_f.68319$dW3.3367@newssvr21.news.prodigy.com>
Source record: 61234

Roy Lewallen wrote:
> I hope you guys realize that the stated equation is correct only when I1
> = I2. Otherwise the solution is a sine or cosine function with a phase
> term.

Of course, I1=I2 is the definition of a standing wave
which is the topic of this discussion. Any current left
over is traveling wave current, by definition.

The concept is akin to the separation of differential
current from common-mode current. Differential currents
are equal by definition.

Standing wave component currents are equal by definition.
--
73, Cecil http://www.qsl.net/w5dxp

693. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 13:29:47 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <f%7_f.68320$dW3.26562@newssvr21.news.prodigy.com>
Source record: 61235

Reg Edwards wrote:
> But I'll save you the trouble and make an uninformed guess. The
> Standard Deviation will be around 4 percent of the VF with the 3-Sigma
> limits at plus and minus 12 percent.

Thanks Reg, I can live with 56 ohm coax.
--
73, Cecil http://www.qsl.net/w5dxp

694. Re: Ground elevated radials?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 13:31:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <b18_f.68321$dW3.54592@newssvr21.news.prodigy.com>
Source record: 61236

w8ji@akorn.net wrote:
> Why insulate radials that are lying in or on the ground?
> What would that do?

Keep the dogs and kids healthy?
--
73, Cecil http://www.qsl.net/w5dxp

695. Re: vert distortion?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 14:05:10 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <4s4i329os8b7cjt5ndgtlrk17tl56ouo3s@4ax.com>
Source record: 61237

On Sun, 09 Apr 2006 13:18:18 GMT, ml <m@di.net> wrote:

>hi
>
>
>i've noticed a few installations of say a 2m beam vertically mounted to
>a regular metal tv style mast
>
>from looking at it, you have the mast(metal) going between 2 elements
>and longer than the elements
>
>so i was wondering as this is a common mounting style and method
>
>how bad is the beam pattern for rx and tx ? effected by the metal mast?
>
>
>
>it also got me thinking i've noteced some beams as in the above use a
>fiberglass boom while others use metal
>
>how does this effect patterns and efficiency
>
>both from a practical point of view and technically speaking

The metal mast affects the performance to some degree, but I don't
know of a rule of thumb for predicting it. So the answer is, it
depends.

A fiberglass or other non-metallic mast will help, it you also use a
non-metallic coax line.

>
>
>???
>
>
>thanks

696. Re: Ground elevated radials?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 14:28:08 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <rg5i32t5g726adkb0bhccuva8ninnsbndr@4ax.com>
Source record: 61238

I am in prototype mode.
I am trying to validate what I think I know.

These prototypes I put together are not intended to last beyond the test stage. That allows the luxury of some pretty primitive mechanical conditions.

At the moment I have three 25 foot electric drop cords in service as ground radials. I am using a 28 foot (approx) vertical radiator. There is a series load inductor (tapped) of about 130 micro henrys.

I am testing with 100 watts or less and I have an MFJ-269 to work with.

I live on a slight ridge in Central North Carolina and I take a lot of lightning strikes.

I am tinkering with this kludge as a "lab project" trying to get a better understanding of short verticals. I don't really expect to find anything new.

On 9 Apr 2006 05:02:46 -0700, w8ji@akorn.net wrote:

>
>John Ferrell wrote:
>> I am experimenting with insulated radials on a vertical antenna.
>> They are insulated wires on top of the ground.
>> I have modeled it with EZNEC but I cannot model the center junction
>> connected to ground because a one inch wire is too short for a
>> segment.
>>
>> It seems to me that the center of the radials should be grounded for
>> lightning protection and that it will have no effect on the antenna
>> performance.
>
>Why insulate radials that are lying in or on the ground?
>What would that do?
>
>If you insulated them, why would you then ground them with a rod?
>Why not just use bare wire and be done with it?
>
>Why would you use a model, when the model makes many assumptions about
>the earth that likely are not true for your particular soil?
>
>I guess what I am asking is what you are trying to learn or trying to
>do?

>
>73 Tom
John Ferrell W8CCW

697. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 15:40:09 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <tV9_f.3484$lm6.894@bgtnsc05-news.ops.worldnet.att.net>
Source record: 61239

Cecil Moore wrote:

>
> I have been very careful to talk about the standing wave
> current *at* the bottom and *at* the top of the coil, not
> about the current *flowing* into the bottom of the coil
> and out the top of the coil as you and W8JI have.

Cecil,

The wave is stationary. The current is not. It is as simple as that.

Distinctions between *at* and *flowing* are meaningless. Current is what it is, and mere words don't change anything.

You seem to be reduced to arguments about semantics, which is both good news and bad news. The good news is that there does not appear to be any disagreement about the physics. The bad news is that the argument will never end.

73,
Gene
W4SZ

698. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 15:56:02 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <MuWdnUfPI8e9sKTZRVn-tA@adelphia.com>
Source record: 61240

Roy Lewallen wrote:
> John Popelish wrote:

>> That's easy. RMS current is an AC measurement of current along the
>> conductor. Over any integer number of cycles, the total movement of
>> charge is zero. The current spends half the time going one way, and
>> half the time going the other way. This applies to both standing and
>> traveling wave induced currents. The only current that describes a
>> net movement of charge in a single direction is DC.
>
>
> I see that Cecil is still having trouble with RMS, as well as with
> current. Otherwise he couldn't have come up with the nonsense question

He seems to confuse energy in the wave traveling along a conductor
with the current it induces along that conductor, as it travels. I
have had a few such mental blocks and made a fool of myself a couple
times because I was sure I was right. But when the light finally came
on, lots of related things suddenly crystallized in my mind and I
jumped to a better understanding. One of my regrets is that I didn't
go back and apologize to my 7th grade science teacher for arguing with
him with so little tact, when I found out a year later that he had
been right and it was I who had been laboring under a misconception.
Same thing happened, on a different topic, in 8th grade science. So I
think I understand his attitude. I just hope that he sees that my
intentions are honorable, in this discussion. I am not attacking him,
but working for his understanding. I may be mistaken and end up
having another seventh grade moment here, but I'm not trying to
embarrass him.

> >> In what direction is the RMS value of standing wave current flowing?
>
> The RMS value of current doesn't flow. Charge flows, and current is the
> rate at which it flows. RMS is one way of expressing the magnitude of a
> time-varying current. In a steady state environment of pure sinusoidal
> waveforms, any current can be expressed as Ipk * cos(wt + phi) where Ipk
> is the peak value of the current, w (omega) is the rotational frequency,
> and phi is the phase angle. This gives you precisely the value of
> current at any instant in time, t. You can equally well express it as
> Irms * cos(wt + phi) where Irms is the RMS value of the current. Nothing
> is lost or gained by choosing one convention or the other, and using RMS
> doesn't require abandoning the time varying or phase information. (In
> EZNEC I chose to use RMS; NEC uses peak. They differ only by a constant
> factor of the square root of 2. Both report phase angle along with
> amplitude.) In either case, if you know or assume w, the current at any

> instant is known if you know phi and either Ipk or Irms.
>
> A point of clarification to John's posting:
>
> When a standing wave exists on a transmission line, the phase of the
> voltage or current is fixed (other than periodic phase reversals) with
> position only if the end of the line is open or short circuited.
> Otherwise, the phase of voltage and current will change with position.

Is that because the result is not a pure standing wave (superposition of two equal and oppositely traveling waves), but a superposition of a pair of traveling oppositely traveling waves of different amplitudes?

699. Re: Please explain side lobe statement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 16:18:52 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <Qo-dnU7fdL97rqTZnZ2dnUVZ_uidnZ2d@comcast.com>
Source record: 61241

Ron J wrote:

> Hello, I have Balanis' Antenna Theory 3rd Edition. I read on page 31 at
> the very last sentence that "Side lobe levels of -20 dB or smaller are
> usually not desirable in most applications."
>
> Why? On the same paragraph it states that "minor lobes represent
> radiation in undesired directions, and they should be minimized." If a
> side lobe is a minor lobe, then why is it undesirable to have side lobe
> levels less than -20 dB? Thanks!
>

-20 dB from a transmit point of view means that 99% of your radiated power is going in the forward [desired] direction. That's GOOD!

From a receiving point of view, -20 dB means that an undesired signal from the side or back of the antenna is approximately 3 1/2 S units [-20 dB] from it's maximum value. It is easily conceivable that you may be trying to copy a weak barely detectable signal from your desired direction and be unable to copy that signal because of a stronger signal that happens to be in a side lobe and on or very close to your frequency. That's NOT too GOOD :-(

For most practical Ham antennas in the DX or contest mode a -20 dB sidelobe is adequate. You can spend a lot of $$$$ buying antennas with better side lobe specifications. You are the only one who can decide if the benefit to your operations is worth the expense.

For VHF/UHF EME work you really want the best side lobe and F/B ratio [front to back] performance you can buy, primarily to minimize undesired signals from the non preferred direction.

700. Re: Please explain side lobe statement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 16:25:16 UTC
From: Dave <noone@nowhere.com>
Message-ID: <D9mdnWF-HcfoqKTZRVn-jw@crocker.com>
Source record: 61242

maybe their 'smaller' means smaller absolute values.. so that would give
numbers like -15db, -10db, etc... which would indeed be worse.

"Dave" <W1MCE@comcast.net> wrote in message
news:Qo-dnU7fdL97rqTZnZ2dnUVZ_uidnZ2d@comcast.com...
> Ron J wrote:
>
>> Hello, I have Balanis' Antenna Theory 3rd Edition. I read on page 31 at
>> the very last sentence that "Side lobe levels of -20 dB or smaller are
>> usually not desirable in most applications."
>>
>> Why? On the same paragraph it states that "minor lobes represent
>> radiation in undesired directions, and they should be minimized." If a
>> side lobe is a minor lobe, then why is it undesirable to have side lobe
>> levels less than -20 dB? Thanks!
>>
>
> -20 dB from a transmit point of view means that 99% of your radiated power
> is going in the forward [desired] direction. That's GOOD!
>
> From a receiving point of view, -20 dB means that an undesired signal from
> the side or back of the antenna is approximately 3 1/2 S units [-20 dB]
> from it's maximum value. It is easily conceivable that you may be trying
> to copy a weak barely detectable signal from your desired direction and be
> unable to copy that signal because of a stronger signal that happens to be
> in a side lobe and on or very close to your frequency. That's NOT too GOOD
> :-(
>
> For most practical Ham antennas in the DX or contest mode a -20 dB
> sidelobe is adequate. You can spend a lot of $$$$ buying antennas with
> better side lobe specifications. You are the only one who can decide if
> the benefit to your operations is worth the expense.
>
> For VHF/UHF EME work you really want the best side lobe and F/B ratio
> [front to back] performance you can buy, primarily to minimize undesired
> signals from the non preferred direction.
>

701. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 16:32:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9kdi32pem0ki8ti0040kb3dvf0504n37q7@4ax.com>
Source record: 61244

On Sun, 09 Apr 2006 13:12:29 GMT, Cecil Moore <mycall@hotmail.com>
wrote:
>Yes, that way I am the owner of the thought, unlike other
>people who like to engage in mind fornication using
>someone else's mind.

Glad to hear you only use your own mind for that.

So your religion practices Onanism?

702. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 16:34:41 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <T4mdnYhxcPWzq6TZRVn-sg@adelphia.com>
Source record: 61243

Cecil Moore wrote:
> John Popelish wrote:
>
> From an earlier posting: > For example, if we took a snapshot of the
> current, all along the line at the moment it peaked it might look like
> this:(length of arrow represents current magnitude, and head shows
> direction)(view in fixed width font)
>
>>
>> ....---> ---> --> -> <- <-- <--- <--- <-- <- -> -->.....
>> hole--------------------50 ohm coax--------------------hole
>
> x y
> There is a standing wave current node at 'x' and a standing
> wave current antinode (loop maximum) at 'y'. Let's say we
> installed coils at those two points
>
> ....---> ---> --> -> <- <-- <--- <--- <-- <- -> -->.....
> hole--------------/////----50 ohm coax----/////------hole
> x y
> Now we have current flowing into both ends of the coil
> located at 'x' and current flowing out of both ends of
> the coil at 'y'. How does the lumped circuit model handle
> that situation?

If we assume the coil is an idealized lumped inductance with no stray capacitance at all (not a real inductor) then it would have the same instantaneous current at each end and that current would be zero, since it has zero size. In other words it would fit entirely in the point that holds the node.

Real inductors with stray capacitance and imperfect magnetic coupling for all parts of its internal current path, would have a phase shift in the current at opposite ends, so they would have current at their ends that was 180 degrees out of phase, if they were centered on the node points. For half of each cycle, current would be entering each end, and for the other half of each cycle, current would be leaving each end. Both those currents would detour out the sides f the inductor into displacement current through the stray capacitance of the surface of the inductor to its surroundings.

I think (with very little actual knowledge of the software) this conceptual model is how EZNEC handles current through a modeled inductor and how it can have different currents at the inductor ends, without being aware of whether those currents are driven by traveling

or standing waves. It is all based on current through inductor
segments and voltage across capacitive segments. If the segments are
small enough, it is a good approximation of a distributed solution.

> Continuing with this posting:
>
>> Please don't be silly. Distributed networks have points. An infinite
>> number of them. Calculus is used to smoothly move through this
>> infinity of points. But at any particular point, current is defined
>> as the rate of movement of charge past that point.
>
>
> No argument, but that is instantaneous current and that is NOT
> the subject of this discussion. We are discussing the RMS phasor
> value of current used by W8JI and W7EL for their measurements
> and reported by EZNEC as in the graphic at:

I am not arguing this point. RMS values capture the amplitude of a
cycle of variation. I am inside the cycle. But the two views are
consistent.

> http://www.qsl.net/w5dxp/travstnd.GIF
>
> Please look at the standing wave current phase and tell us how
> that flat phase curve can be used to measure the phase shift
> in a wire or coil.
>
> The current reported by EZNEC and measured by W8JI and W7EL is
> *NOT* instantaneous current. It is RMS current. Instantaneous
> current is completely irrelevant to this discussion.

I am not arguing for the validity of that measurement. Argue about it
with someone who is.

>>> I've been waiting for that to happen. There's no point
>>> continuing an argument with someone who denies one of
>>> the cornerstones of EM wave theory.
>>
>>
>> So you deny that there are any points (where voltage can be defined or
>> that charge passes) in all distributed networks?
>> How strange.
>
>
> :-) You have your points confused. I was talking about a logical
> point. Here, let me translate for you. There's no *reason* to
> continue an argument with someone who denies one of the
> cornerstones of EM wave theory. John, is English your native
> language? For the record, I did NOT deny the existence any
> physical points!!!
>
>>> The fact remains that standing wave current phase cannot

>>> be used to measure phase delay through a wire or through
>>> a coil. There is no phase information in standing wave
>>> current phase.
>>
>>
>> Yes. That fact remains.
>> It is a non sequitur in the above discussion, however.
>
>
> Whoa there, John, it is the entire reason for this discussion.

According to you, you are finished talking about coils, and want to delve strictly into wave concepts. To honor your request, I have tried to keep the discussion general, and avoid bringing up the effect on and measurements of coils. But, in this post, you talk about almost nothing else but coils. I get the distinct feeling that you want to win a debate far more than you want to reach an understanding with no internal contradictions. And you are willing to use dishonest debate tactics (like telling me not to discuss a topic with you, and then telling me that that exact topic is "the entire reason for this discussion". Do you get beat up a lot in face-to-face arguments?

> W7EL used that standing wave current phase to try to measure
> phase shift through a coil. If there is no phase information
> in standing wave current phase, then his entire argument
> falls apart and he is back to square one with his flawed
> lumped circuit model.

Yes. But I cannot concede that point of discussion for someone else. Are you going to hit me over the head with this till every person in the World agrees with you? I am trying to think the general case through with you.

In case you don't realize, there is more than one person out here, responding to you.

You remind me of a type of insanity where the sufferer thinks that everything he is experiencing an organized illusion by a single offending intelligence (you against the Matrix) bent on forcing him to think that a lie is the truth, regardless of who or what he deals with. Everyone he meets, every apparently random happenstance, the actions of his dog and the weather, generally, are all a conspiracy to force him to think that black is white, and he isn't going to fall for it.

If you cannot carry on a conversation with more than one person at a time, and treat each of them as a separate mind, then this is the wrong venue for you.

703. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 16:46:56 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <AMednTdIOa2QpKTZRVn-iA@adelphia.com>
Source record: 61245

Cecil Moore wrote:
> John Popelish wrote:
>
>> To the center conductor, carrying the standing wave, the shield is the
>> outside world. If there is no shield, the outside world is the
>> outside world, as far as displacement current goes. Do you imagine
>> this current changes in some way other than magnitude and wave
>> velocity when you wrap a shield around a wire carrying a standing wave?
>
>
> No, that is your point, not mine. My point is that displacement
> current to real ground is non-existent outside of a coax shield
> (unless common mode current exists)

With you, so far..

> and that it is usually a
> secondary effect if the coax shield doesn't exist.

And then we part ways.

> The primary
> reason for the variation in standing wave current along the line
> is the phasor sum of the forward and reflected wave phasors that
> are rotating in opposite directions. Do you understand phasor
> addition? 1 at zero + 1 at 180 deg = zero at a standing wave
> node? Displacement current to real ground doesn't cause that.

I am making the point that if the displacement currents were
insignificant, outside a coax, then the speed of light for waves out
there would be infinite. And they are not, therefore those
displacement currents cannot be assumed to be insignificant.

>> I am explaining distributed network theory to you.
>
>
> :-) How? By denying the existence of the individual H-fields
> in forward and reflected EM waves? Now, that's really funny.

Exactly the opposite. I am explaining the distributed effect of the E
field along the wave.

>>> http://www.qsl.net/w5dxp/travstnd.GIF
>>
>>
>> And I have agreed with that. Why do you keep bringing it up?
>

>
> Because that's the whole point of this discussion. If you
> agree with that, there is no reason to continue. I just
> don't care about instantaneous current, Brownian motion, or
> the exact location and velocity of every electron carrier.
> There's too much uncertainty involved.

You are avoiding the very facts that would allow you to make an air tight argument for your beliefs about "the whole point of the discussion". You somehow picture current as a continuous thing from one end of a conductor to the other, when it carries a traveling energy wave. This is a misconception.

You appear to accept that current is a localized kind of thing (parts of the conductor carry current, but those parts are separated by nodes) when two traveling waves going in opposite directions superpose, but have no concept that explains how this happens, only a mathematical function that quantifies it.

What you don't get is, that the currents that each of those traveling waves would have generated were localized, to begin with. Local current cycles and voltage cycles are the water the energy waves ride on over arbitrarily long distances along conductors and transmission lines.

I know you don't care about this factoid, but understanding it would allow you to think about "the entire reason for this discussion" much more clearly.

704. Re: Ground elevated radials?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 16:49:57 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <44393B44.6F748984@shaw.ca>
Source record: 61246

John Ferrell wrote:
>
> I am experimenting with insulated radials on a vertical antenna.
> They are insulated wires on top of the ground.
> I have modeled it with EZNEC but I cannot model the center junction
> connected to ground because a one inch wire is too short for a
> segment.
>
> It seems to me that the center of the radials should be grounded for
> lightning protection and that it will have no effect on the antenna
> performance.
>
> Comments please?
> John Ferrell W8CCW

Insulated radials on the ground still have significant capacitive
coupling to the ground. This coupling also depends on conditions
unique to your location. These two factors alone will make any form
of modelling null and void. When radials are raised above ground
level the height above ground should be taken into account as well.
If you have a vertical at ground level you would do better to have
a reasonable number of radials laid along the ground, and the
length need not extend beyond the height of the vertical element.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

705. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 17:08:48 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <Ju2dneSYuc6wo6TZnZ2dnUVZ_v2dnZ2d@adelphia.com>
Source record: 61247

Cecil Moore wrote:
> John Popelish wrote:
>
>> So waves can move in one or more directions while any bit of water
>> moves only locally. Same with charge.
>
>
> My point exactly. I'm glad you agree.

We shall see.

>> There is energy heating the load resistor. The current does not come
>> through the source. It is created at the end of the line by the
>> traveling energy wave.
>
>
> The H-field energy in the load originated in the source.

Yes.

> Current is directly proportional to the H-field in the EM wave.

Yes.

> Let me quote Ramo and Whinnery:
>
> I = e^jwt/Z0[(V+)(e^-jwz/v) - (V-)(e^jwz/v)]
>
> This is the *continuous* equation for source current at
> z = 0 and load current at z = (distance). Essentially the
> same equation is found in every reference on transmission
> lines.

Yes. That equation describes the instantaneous current you would find
at any point as the wave pases through it.
It does not imply that the current at one point is the same current at
another point. It implies a continuity of the energy wave. At some
points along that wave, the current has some positive value (charge
going in the same direction as the wave. At other points, the current
has some negative value, indicating that charge is moving the opposite
way from the wave direction. The current is continuous only in that
there is a smooth, sinusoidal variation in its magnitude and direction
as you look along the wave path. but the current at one point is not
the current at some other point.

> They don't say current is "created" at the load. They say
> current is a *continuous single-valued function* between

> source and load.

A current described by a continuous single valued function is not a
continuous current. The water that drowns people in a tidal wave in
California is a current dragged over the beach by an energy wave that
caused a continuous pattern on of local currents from the landslide in
Hawaii. But the actual water current (movement of water molecules
carrying the wave energy) did not flow continuously from Hawaii to
California. There are no Hawaiian fish carried to California by a
current of water that connected those two locations.

> Do you have a reference for your "creation"
> of current?

Only Maxwell's equations.

> That the H-field experiences a delay and transformation on its
> way to the load doesn't mean that current is magically created
> out of thin air at the load.

Current is created and reversed (charge is sloshed back and forth) all
along the line, from source to load. Just as water is moved up and
down all along the path of a wave over the surface of the water. But
if you pick any bit of water, it does not follow the wave.

> Hang some modulation on the current at the source. You will
> measure that modulation arriving at the load in the form of
> current exactly in accordance with the laws of physics
> embodied in the distributed network model.

Yes, delayed by the speed of light in that medium.

> In a DC circuit, is the current also "created" at the load?

No. DC has an infinite wavelength, so there is no significant
distance (in wavelength units) no matter how far apart the source and
load appear to be. If a battery near earth is connected to a load
near Alpha Centauri by a perfectly conducting loop, and you consider
the DC case (DC has an infinite duration), then there is no
significant distance between that source and load, so local current
connects them. Electrons that are pushed out of the battery will
reach the load and return to the battery. The definition of "local"
is wavelength dependent.

Back to the RF case: Do you imagine that electrons from the source
reach the load?

>> My denial is a recognition that current does not connect the source to
>> the load, ...
>
>
> Then by all means, disconnect the source and keep the current.

Be happy to. For the amount of time it takes for a wave to pass the
full length of the line, energy will continue to be delivered to the
load (current will pass through it), even though the source has been
disconnected and causes no further current in the line.

> Anything is possible in your mind. Just don't expect that to
> work in reality.

I am doing my best to limit my mind to strictly what reality allows,
in this discussion.

>>> How could
>>> its unchanging phase be used to measure the electrical
>>> length of the coax?
>>
>>
>> You measure the difference of the node positions, with and without the
>> coil. The shift in distance (in wavelengths) between the two nodes
>> that straddle the coil is the phase shift of the coil for each of the
>> traveling waves that make up the standing wave.
>
>
> Someone needs to tell that to W7EL. I've tried to tell him but
> instead of thanking me, he 'ploinked' me.

Perhaps he has lost interest in this thread.
Perhaps he is taking this topic personally.
Perhaps he enjoys yanking your chain.
Perhaps ...

What does any of that have to do with our conversation?

Your thoughts are in a rut.

706. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 17:17:58 UTC
From: GS <limbo@spam.hell>
Message-ID: <alb_f.188$fo1.31420@news20.bellglobal.com>
Source record: 61249

Depending on the manufacturer the specs list VF from 0.72 to 0.81 in the
Wirebook IV. Not to mention various manufacturing variations.

73's

Guenther VE3CVS

"AK" <nomail@aol.com> wrote in message news:KRUZf.88176$oL.627@attbi_s71...
> Is 78% the correct velocity factor for RG8X coax?
>

707. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 17:29:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <awb_f.9523$4L1.6854@newssvr11.news.prodigy.com>
Source record: 61248

Gene Fuller wrote:
> The good news is that there does not appear to be any
> disagreement about the physics.

On the contrary, Gene. The disagreement is whether W7EL's use of standing wave current phase to try to determine phase shift through a coil was valid or not. That is the present point of disagreement.

I have posted what you said many times but W7EL doesn't read my postings. So would you kindly point out to W7EL that there is no phase information in standing wave current phase?
--
73, Cecil http://www.qsl.net/w5dxp

708. 16 el coaxial colinear (2.4ghz) question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 17:45:06 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <LKb_f.551$B42.142@dukeread05>
Source record: 61250

I built this antenna expecting better performance from my WiFi
setup. Stock antennas are 1/2 wave verticals at the back of the
router. New antenna is a 16 element coaxial collinear @32' agl.
Total transmission system losses work out to 5.299db @2.412
ghz (includes feedline + N connectors).

So, why does this antenna only have about (rough measurement)
1-3 db gain over the stock antenna? I was meticulous in my work,
measuring the antenna parts with a digital caliper and checking
the connections with a DVM along the way.

Maybe my design is a fault? I built the antenna just like this:

http://wireless.gumph.org/content/4/3/011-mini-wireless-antenna.html

Except in my version, I've got 16 elements made from RG58. I also
made 2 four element antennas for the back of my thinkpad and they
seem to be working about twice as far as the antennas they replaced
(inverted V's).

Any ideas?

73's de Ken KG0WX - Kadiddlehopper #11808,
Flying Pigs #-1055, Grid EM17io,
Elecraft K2 #4913, XG2, 4SQRP Tenna Dipper,
Heath GD-1B, MP-1(X)antenna

709. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 17:48:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <UNb_f.9524$4L1.3522@newssvr11.news.prodigy.com>
Source record: 61251

John Popelish wrote:
> He seems to confuse energy in the wave traveling along a conductor with
> the current it induces along that conductor, as it travels.

It's not confusion, John. It is engineering convention. Every engineering reference book I have refers to current flow at one point or another. Most of them also refer to power flow. "Transmission Lines and Networks", by Walter C. Johnson even refers to "The Conservation of Power Principle". Since there is no such thing as an RF battery, we know exactly what Mr. Johnson meant.

You are discussing the conventions used by physicists. Since this is basically an RF engineering convention newsgroup, you need to adjust your concepts accordingly or tell everyone that you are nit-picking based on the conventions from the field of pure physics.

In the engineering world: Power companies generate power and transfer the power to the consumers over transmission lines. RF transmitters generate power which is transferred over the transmission line and radiated by the antenna.

There is always a convention for placing an arrow on a wire to indicate direction of current flow, whether RMS AC or DC or RMS RF. The AC conventions are left over from the DC conventions. If you are trying to change those conventions, please say so.

Food for thought: If an electron can pass through two different holes at the same time, can it also travel in two directions at the same time? Quantum physics says that is a possibility.

> Is that because the result is not a pure standing wave (superposition of
> two equal and oppositely traveling waves), but a superposition of a pair
> of traveling oppositely traveling waves of different amplitudes?

Yes, but the definition of a standing wave is that the two waves are of equal amplitudes. The wave you are describing is a hybrid wave containing both a traveling wave and a standing wave. Any real-world system contains hybrid waves in various ratios of traveling waves to standing waves.
--
73, Cecil http://www.qsl.net/w5dxp

710. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 17:53:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <6Sb_f.9525$4L1.5698@newssvr11.news.prodigy.com>
Source record: 61252

Richard Clark wrote:
> Glad to hear you only use your own mind for that.
>
> So your religion practices Onanism?

It means that if I decide to mentally masturbate, I'll use my
own mind, thank you, not someone else's mind, as do a lot of
the posters on this newsgroup.
--
73, Cecil http://www.qsl.net/w5dxp

711. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 17:55:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qjii32h0nmsr3bjjc00diobm5kochuclqf@4ax.com>
Source record: 61253

On Sun, 09 Apr 2006 17:53:07 GMT, Cecil Moore <mycall@hotmail.com>
wrote:
>> So your religion practices Onanism?
>
>It means that if I decide to mentally masturbate, I'll use my
>own mind, thank you, not someone else's mind, as do a lot of
>the posters on this newsgroup.

Lot of bafflegab in that. I will take it to mean yes.

712. Re: 16 el coaxial colinear (2.4ghz) question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 18:03:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <urii32h83hlu6u0bv6b04hmoku84so6c73@4ax.com>
Source record: 61254

On Sun, 9 Apr 2006 12:45:06 -0500, "Ken Bessler"
<kg0wx@NOSPAMyahoo.com> wrote:

>New antenna is a 16 element coaxial collinear @32' agl.
>Total transmission system losses work out to 5.299db @2.412
>ghz (includes feedline + N connectors).
>
>So, why does this antenna only have about (rough measurement)
>1-3 db gain over the stock antenna? I was meticulous in my work,
>measuring the antenna parts with a digital caliper and checking
>the connections with a DVM along the way.
>
>Maybe my design is a fault?

Hi Ken,

What did you compute as being the Velocity Factor for the shield being
covered with thick PVC?

The problem with this modified Franklin Array is that you are cutting
for half-wave dimensions once, for two Velocity Factors along the same
length. Only one is going to be correct, and it is going to impact
the theoretical application of the other.

You might want to try again using bare wire, twin lead fashion.

73's
Richard Clark, KB7QHC

713. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 18:13:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <k9c_f.9527$4L1.1336@newssvr11.news.prodigy.com>
Source record: 61255

John Popelish wrote:
> If we assume the coil is an idealized lumped inductance with no stray
> capacitance at all (not a real inductor) then it would have the same
> instantaneous current at each end and that current would be zero, since
> it has zero size. In other words it would fit entirely in the point
> that holds the node.

And such a coil is impossible in the real world so why even mention it?
I want to hear about real world one foot long, 100 uH coils.

> Real inductors with stray capacitance and imperfect magnetic coupling
> for all parts of its internal current path, would have a phase shift in
> the current at opposite ends, so they would have current at their ends
> that was 180 degrees out of phase, if they were centered on the node
> points.

Yes, now please tell that to W8JI and W7EL. They are not listening
to me.

> I am not arguing for the validity of that measurement. Argue about it
> with someone who is.

That's my entire argument at the moment and W7EL is avoiding that
argument like a plague.

> In case you don't realize, there is more than one person out here,
> responding to you.

Please forgive me for not recognizing which of the ten individual
junk yard dog "experts" is biting my ankles at any particular time. :-)

> You remind me of a type of insanity where the sufferer thinks that
> everything he is experiencing an organized illusion by a single
> offending intelligence (you against the Matrix) bent on forcing him to
> think that a lie is the truth, regardless of who or what he deals with.
> Everyone he meets, every apparently random happenstance, the actions of
> his dog and the weather, generally, are all a conspiracy to force him to
> think that black is white, and he isn't going to fall for it.

IMHO, hardly anyone here on r.r.a.a is interested in technical facts.
Most "experts" think they already know everything, wouldn't recognize
a differing concept if it bit them in the arse, and are more dedicated
to preserving the pecking order than anything else. 'Course, I am only
human and could, therefore, unlike the omniscient experts, be wrong
about that.
--
73, Cecil http://www.qsl.net/w5dxp

714. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 18:34:40 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <4tc_f.9528$4L1.399@newssvr11.news.prodigy.com>
Source record: 61256

John Popelish wrote:
> I am making the point that if the displacement currents were
> insignificant, outside a coax, then the speed of light for waves out
> there would be infinite. And they are not, therefore those displacement
> currents cannot be assumed to be insignificant.

But I am not talking about displacement currents within the
transmission line, as exists in free space. I am talking *solely*
about the displacement currents to *earth ground*. I contend that
those are often secondary effects as proven by the coax example.
Just how much displacement current to "earth ground" is there for
a coil located halfway between here and Alpha Centauri?

> Exactly the opposite. I am explaining the distributed effect of the E
> field along the wave.

And completely ignoring the H-field? In the treatment of those fields,
the only variation is Z0. For EM fields, there is no "across" and no
"through". The difference between voltage and current essentially
disappears except for their Z0 ratio. The equation for current in
a transmission line is identical to the equation for voltage except
for the Z0 term. Current "drops" are commonplace in lossy transmission
lines.

For instance, what is the current at the end of 200 feet of RG-58
terminated by a 50 ohm antenna used on 446 MHz when the source
current is 2 amps?

> You are avoiding the very facts that would allow you to make an air
> tight argument for your beliefs about "the whole point of the
> discussion". You somehow picture current as a continuous thing from one
> end of a conductor to the other, when it carries a traveling energy
> wave. This is a misconception.

Maybe in the field of physics - not in the field of RF engineering.
For any two current points, I can calculate a point in between.
Sorry, but that's a characteristic of a *continuous* single-valued
function and can be proven mathematically. I admit to being a EE/math
major. I didn't take many pure physics courses so I am missing your
point about me being able to prove anything additional. Maybe it
will dawn on me after awhile.

> What you don't get is, that the currents that each of those traveling
> waves would have generated were localized, to begin with.

I realize that is the physicist talking and it agrees with my
earlier assertion that standing wave current doesn't flow. I

guess I'm so dense that I need help in proving what you think
I can prove with that information. Right now, I am apparently
missing something, maybe because of too much California Merlot.
--
73, Cecil http://www.qsl.net/w5dxp

715. Re: 16 el coaxial colinear (2.4ghz) question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 18:44:38 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <qCc_f.2174$wH1.1885@trnddc03>
Source record: 61257

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:urii32h83hlu6u0bv6b04hmoku84so6c73@4ax.com...
> On Sun, 9 Apr 2006 12:45:06 -0500, "Ken Bessler"
> <kg0wx@NOSPAMyahoo.com> wrote:
>
>>New antenna is a 16 element coaxial collinear @32' agl.
>>Total transmission system losses work out to 5.299db @2.412
>>ghz (includes feedline + N connectors).
>>
>>So, why does this antenna only have about (rough measurement)
>>1-3 db gain over the stock antenna? I was meticulous in my work,
>>measuring the antenna parts with a digital caliper and checking
>>the connections with a DVM along the way.
>>
>>Maybe my design is a fault?
>
> Hi Ken,
>
> What did you compute as being the Velocity Factor for the shield being
> covered with thick PVC?
>
> The problem with this modified Franklin Array is that you are cutting
> for half-wave dimensions once, for two Velocity Factors along the same
> length. Only one is going to be correct, and it is going to impact
> the theoretical application of the other.
>
> You might want to try again using bare wire, twin lead fashion.
>
> 73's
> Richard Clark, KB7QHC

To Ken

Hi Ken, I'd always take Richard's advice before mine. But, I wonder if
you realize how difficult your task is. It is a very difficult project to
develop the design of any array of radiators thats about 5 wavelengths long.
And, it *is* a project, not just a matter of precise measuring and cutting.
I'd think that 3 dB improvement over the antenna that was designed for
optimum performance shows that you are doing something right.
This project is a great learning opportunity for you.

I'd suggest that you get a directional coupler and get some idea of the
match of the array while it is being made longer. If you can manage to keep
the VSWR under 2:1 with 6 or 8 elements, at your operating frequencies, you
will be way ahead of me.

Jerry KD6JDJ

716. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 18:52:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sJc_f.9529$4L1.1903@newssvr11.news.prodigy.com>
Source record: 61258

John Popelish wrote:
> The definition of "local" is wavelength dependent.

Since the reality in which we exist has been proven to be
non-local in nature, I'm wondering what is your point?

> Back to the RF case: Do you imagine that electrons from the source
> reach the load?

Maybe for DC. But depending upon the length of the transmission
line, probably not for HF RF. Is that a rhetorical question?

>> Someone needs to tell that to W7EL. I've tried to tell him but
>> instead of thanking me, he 'ploinked' me.
>
> Perhaps he has lost interest in this thread.
> Perhaps he is taking this topic personally.
> Perhaps he enjoys yanking your chain.
> Perhaps ...

... he is afraid of losing his "expert" status?

> What does any of that have to do with our conversation?

Everything. That's what this thread is all about. I will repeat:

Can the standing wave current phase, with its unchanging phase,
be used to measure the phase shift through a wire or coil?

That's the admittedly narrow present topic. The answer is either
'yes' or 'no'. After we answer that narrow technical question,
the discussion can procede.
--
73, Cecil http://www.qsl.net/w5dxp

717. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 18:57:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <TOc_f.9530$4L1.4095@newssvr11.news.prodigy.com>
Source record: 61260

Richard Clark wrote:
> Lot of bafflegab in that. I will take it to mean yes.

Whatever way you choose to "take it" has absolutely no
effect on any reality except your own personal reality
existing only in your head. Enjoy!
--
73, Cecil http://www.qsl.net/w5dxp

718. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 19:01:38 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <wpmdnWfLCeoCxaTZnZ2dnUVZ_vmdnZ2d@adelphia.com>
Source record: 61259

Cecil Moore wrote:
> John Popelish wrote:
>
>> If we assume the coil is an idealized lumped inductance with no stray
>> capacitance at all (not a real inductor) then it would have the same
>> instantaneous current at each end and that current would be zero,
>> since it has zero size. In other words it would fit entirely in the
>> point that holds the node.
>
>
> And such a coil is impossible in the real world so why even mention it?

Because it is the limiting case of the possible. Understanding why it
is the limit interests me.

> I want to hear about real world one foot long, 100 uH coils.

Then you have changed your mind from a few days ago.
No problem for me.

>> Real inductors with stray capacitance and imperfect magnetic coupling
>> for all parts of its internal current path, would have a phase shift
>> in the current at opposite ends, so they would have current at their
>> ends that was 180 degrees out of phase, if they were centered on the
>> node points.
>
>
> Yes, now please tell that to W8JI and W7EL. They are not listening
> to me.

I just did. I hope you realize that anyone is perfectly free to
ignore anything posted to this or any other newsgroup, and long as it
pleases them. If you are going to have trouble sleeping because you
can't get complete agreement from everyone who you have ever seen post
to this group, your problems are a lot bigger than coils and waves.

>> I am not arguing for the validity of that measurement. Argue about it
>> with someone who is.
>
> That's my entire argument at the moment and W7EL is avoiding that
> argument like a plague.

That is their prerogative. Deal with it. I am putting considerable
effort to understand the physics of the situation and to share my
thoughts with you. If this is no interest to you, I will discuss this
interesting topic with someone else.

>> In case you don't realize, there is more than one person out here,
>> responding to you.
>
> Please forgive me for not recognizing which of the ten individual
> junk yard dog "experts" is biting my ankles at any particular time. :-)

I am insulted that you include me in that derogatory characterization.
I have been polite, patient and respectful with you in this
discussion.

>> You remind me of a type of insanity where the sufferer thinks that
>> everything he is experiencing an organized illusion by a single
>> offending intelligence (you against the Matrix) bent on forcing him to
>> think that a lie is the truth, regardless of who or what he deals
>> with. Everyone he meets, every apparently random happenstance, the
>> actions of his dog and the weather, generally, are all a conspiracy to
>> force him to think that black is white, and he isn't going to fall for
>> it.
>
> IMHO, hardly anyone here on r.r.a.a is interested in technical facts.
> Most "experts" think they already know everything, wouldn't recognize
> a differing concept if it bit them in the arse, and are more dedicated
> to preserving the pecking order than anything else. 'Course, I am only
> human and could, therefore, unlike the omniscient experts, be wrong
> about that.

And that is exactly why I have refrained from personal attacks (though
I have indulged in a few observations as above, because I think
considering them might open your eyes to how you appear to others, and
how that interferes with your arguments. So even those observations
were not made in an attempt to win an argument with you, but to assist
you in thinking more clearly.

For the most part, I have tried to talk about physics, not pecking
order or personalities. But you keep cutting me off, saying you are
not interested in physics, but in winning a debate with a few people,
regardless of who you have to insult to win.

At this point, my mental model of how your mind works is just about as
interesting to me as my mental model of how EM waves work. The
universe is full of strange and fascinating processes. But if you get
back to physics, I will soon lose interest in your mind.

719. Re: 16 el coaxial colinear (2.4ghz) question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 19:08:21 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <6m2og3-aqa.ln1@p400bob.personal.cox.net>
Source record: 61270

Hi Ken

My first thought would be that a collinear with such a high gain would have a very narrow vertical beamwidth. ie a small angle off the vertical where mounted would have the remote site some dB down off the main lobe. The test for this will be to tilt the antenna back and forth whilst checking the RSL. Also keep in mind that reflections on 2.4GHz will cause a similar picket fence effect you might have heard on 2m/70cm. Your antenna could be mounted in a semi null. (I might try and model this some day and post you the results)

Next idea is that with such a long colinear you are getting losses along the coax elements to the point where the upper element is radiating less than the lower ones. This will cause some skew in the radiation pattern. (upward tilt) TG213 would have been a better choice for this many elemets for this reason.

Thirdly... Although RG58 is suppose to have a VF of 0.66 it does vary some from manufacturer to manufacturer. I havent bothered to work out how much difference it would make but would suspect that the longer the antenna (in elements) the worse it would become.

Am thinking of making a Sterba curtain for WiFi. Looks easier than playing with bits of coax!

Cheers Bob W5/VK2YQA East Texas

Ken Bessler wrote:
> I built this antenna expecting better performance from my WiFi
> setup.

720. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 19:08:32 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <P5udnQdKI9Ojx6TZnZ2dnUVZ_tCdnZ2d@adelphia.com>
Source record: 61261

Cecil Moore wrote:
> John Popelish wrote:
>
>> I am making the point that if the displacement currents were
>> insignificant, outside a coax, then the speed of light for waves out
>> there would be infinite. And they are not, therefore those
>> displacement currents cannot be assumed to be insignificant.
>
>
> But I am not talking about displacement currents within the
> transmission line, as exists in free space. I am talking *solely*
> about the displacement currents to *earth ground*. I contend that
> those are often secondary effects as proven by the coax example.
> Just how much displacement current to "earth ground" is there for
> a coil located halfway between here and Alpha Centauri?

Almost exactly as much as there is between a coil that is a half
wavelength from a grounded surface.

>> Exactly the opposite. I am explaining the distributed effect of the E
>> field along the wave.
>
> And completely ignoring the H-field? In the treatment of those fields,
> the only variation is Z0. For EM fields, there is no "across" and no
> "through". The difference between voltage and current essentially
> disappears except for their Z0 ratio. The equation for current in
> a transmission line is identical to the equation for voltage except
> for the Z0 term. Current "drops" are commonplace in lossy transmission
> lines.
>
> For instance, what is the current at the end of 200 feet of RG-58
> terminated by a 50 ohm antenna used on 446 MHz when the source
> current is 2 amps?

Somewhat less then 2 amps. Loss certainly occurs along that length,
at that frequency? So what? Are you thinking that this is the
predominate mechanism that is altering the current magnitude through
your coil? It is part of the answer, but not the whole answer.

>> You are avoiding the very facts that would allow you to make an air
>> tight argument for your beliefs about "the whole point of the
>> discussion". You somehow picture current as a continuous thing from
>> one end of a conductor to the other, when it carries a traveling
>> energy wave. This is a misconception.
>

> Maybe in the field of physics - not in the field of RF engineering.
> For any two current points, I can calculate a point in between.
> Sorry, but that's a characteristic of a *continuous* single-valued
> function and can be proven mathematically. I admit to being a EE/math
> major. I didn't take many pure physics courses so I am missing your
> point about me being able to prove anything additional. Maybe it
> will dawn on me after awhile.

That is the best outcome I can hope for.

>> What you don't get is, that the currents that each of those traveling
>> waves would have generated were localized, to begin with.
>
> I realize that is the physicist talking and it agrees with my
> earlier assertion that standing wave current doesn't flow.

No current flows. Charges flow (move) the magnitude of that movement
past any point is current. I am picking nits, here, but the
distinction is important if you want to build on these simple
concepts. By the way, I am an EE, not a physicist, but I have to
think physics to do engineering.

> I guess I'm so dense that I need help in proving what you think
> I can prove with that information. Right now, I am apparently
> missing something, maybe because of too much California Merlot.

Sounds like something I might do, this afternoon.

721. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 19:10:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <W_c_f.9532$4L1.5428@newssvr11.news.prodigy.com>
Source record: 61263

John Popelish wrote:
>> Please forgive me for not recognizing which of the ten individual
>> junk yard dog "experts" is biting my ankles at any particular time. :-)
>
> I am insulted that you include me in that derogatory characterization.
> I have been polite, patient and respectful with you in this discussion.

It wasn't derogatory, John. It was a paraphrasing of the old saying:
"When one is up to one's ass in alligators, it's hard to remember
that the original purpose was to drain the swamp."

> But if you get back to physics, I will soon lose interest in your mind.

I have no idea if "losing interest" is a good thing or a bad thing.
--
73, Cecil http://www.qsl.net/w5dxp

722. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 19:15:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ttmi329n9241cqdrnf5er37hf8gtjodlvb@4ax.com>
Source record: 61264

On Sun, 09 Apr 2006 18:57:55 GMT, Cecil Moore <mycall@hotmail.com>
wrote:
>Whatever way you choose to "take it" has absolutely no
>effect on any reality except your own personal reality
>existing only in your head. Enjoy!

Odd you chose to deviate from technical discussion to explain
"seeming" in terms of fornication and masturbation. You offer no
quantifiables, and even more oddly, no qualifiables. Yours would be a
pretty strange reality.

723. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 19:15:15 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <sZqdnZCHs-BMxqTZnZ2dnUVZ_vudnZ2d@adelphia.com>
Source record: 61262

Cecil Moore wrote:
> John Popelish wrote:
>
>> The definition of "local" is wavelength dependent.
>
> Since the reality in which we exist has been proven to be
> non-local in nature, I'm wondering what is your point?

Go back and ponder what I wrote.
Too much has been clipped for my elaboration to have any continuity.

>> Back to the RF case: Do you imagine that electrons from the source
>> reach the load?
>
>
> Maybe for DC. But depending upon the length of the transmission
> line, probably not for HF RF. Is that a rhetorical question?

It is a koan.

>>> Someone needs to tell that to W7EL. I've tried to tell him but
>>> instead of thanking me, he 'ploinked' me.
>>
>>
>> Perhaps he has lost interest in this thread.
>> Perhaps he is taking this topic personally.
>> Perhaps he enjoys yanking your chain.
>> Perhaps ...
>
>
> ... he is afraid of losing his "expert" status?
>
>> What does any of that have to do with our conversation?
>
>
> Everything. That's what this thread is all about. I will repeat:
>
> Can the standing wave current phase, with its unchanging phase,
> be used to measure the phase shift through a wire or coil?
>
> That's the admittedly narrow present topic. The answer is either
> 'yes' or 'no'. After we answer that narrow technical question,
> the discussion can procede.

I have answered with my opinion on that subject many times, already.
I am trying to help you build your understanding of it, so you can

argue it more persuasively, and understand it more completely. I'm doing it in public, to invite corrections from anyone who sees errors in my thinking, and can explain them to me.

If you have no interest in anything but butting heads with the people who have disagreed with you, then, please stop responding to my posts.

You have that choice.

724. Re: 16 el coaxial colinear (2.4ghz) question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 19:17:23 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <h5d_f.557$B42.127@dukeread05>
Source record: 61265

"Jerry Martes" <j.jmartes@verizon.net> wrote in message
news:qCc_f.2174$wH1.1885@trnddc03...
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:urii32h83hlu6u0bv6b04hmoku84so6c73@4ax.com...
> > Hi Ken,
> >
> > What did you compute as being the Velocity Factor for the shield being
> > covered with thick PVC?
> >
> > The problem with this modified Franklin Array is that you are cutting
> > for half-wave dimensions once, for two Velocity Factors along the same
> > length. Only one is going to be correct, and it is going to impact
> > the theoretical application of the other.
> >
> > You might want to try again using bare wire, twin lead fashion.
> >
> > 73's
> > Richard Clark, KB7QHC
>
> To Ken
>
> Hi Ken, I'd always take Richard's advice before mine. But, I wonder if
> you realize how difficult your task is. It is a very difficult project
to
> develop the design of any array of radiators thats about 5 wavelengths
long.
> And, it *is* a project, not just a matter of precise measuring and
cutting.
> I'd think that 3 dB improvement over the antenna that was designed for
> optimum performance shows that you are doing something right.
> This project is a great learning opportunity for you.
>
> I'd suggest that you get a directional coupler and get some idea of the
> match of the array while it is being made longer. If you can manage to
keep
> the VSWR under 2:1 with 6 or 8 elements, at your operating frequencies,
you
> will be way ahead of me.
>
> Jerry KD6JDJ
>

Thanks to both of you for your help. I took the antenna down and by-passed the 40' of LMR 400. Still, my Rssi with the OEM antennas was only 3db better on the big antenna. Thinking maybe the radome was an issue, I took it off and saw about another 2db improvement.

I had fun building the antenna and I learned a lot. I just bought a pair of OEM high performance (9dbi gain) antennas off of eBay. Someone suggested running the router up my tower in an enclosure. Neat idea...

Ken KG0WX

725. Re: 16 el coaxial colinear (2.4ghz) question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 19:29:32 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <wgd_f.7823$WL4.5492@trnddc07>
Source record: 61266

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:h5d_f.557$B42.127@dukeread05...
>
> "Jerry Martes" <j.jmartes@verizon.net> wrote in message
> news:qCc_f.2174$wH1.1885@trnddc03...
>>
>> "Richard Clark" <kb7qhc@comcast.net> wrote in message
>> news:urii32h83hlu6u0bv6b04hmoku84so6c73@4ax.com...
>> > Hi Ken,
>> >
>> > What did you compute as being the Velocity Factor for the shield being
>> > covered with thick PVC?
>> >
>> > The problem with this modified Franklin Array is that you are cutting
>> > for half-wave dimensions once, for two Velocity Factors along the same
>> > length. Only one is going to be correct, and it is going to impact
>> > the theoretical application of the other.
>> >
>> > You might want to try again using bare wire, twin lead fashion.
>> >
>> > 73's
>> > Richard Clark, KB7QHC
>>
>> To Ken
>>
>> Hi Ken, I'd always take Richard's advice before mine. But, I wonder if
>> you realize how difficult your task is. It is a very difficult project
> to
>> develop the design of any array of radiators thats about 5 wavelengths
> long.
>> And, it *is* a project, not just a matter of precise measuring and
> cutting.
>> I'd think that 3 dB improvement over the antenna that was designed for
>> optimum performance shows that you are doing something right.
>> This project is a great learning opportunity for you.
>>
>> I'd suggest that you get a directional coupler and get some idea of the
>> match of the array while it is being made longer. If you can manage to
> keep
>> the VSWR under 2:1 with 6 or 8 elements, at your operating frequencies,
> you
>> will be way ahead of me.
>>
>> Jerry KD6JDJ

>>
>
> Thanks to both of you for your help. I took the antenna down and by-
> passed the 40' of LMR 400. Still, my Rssi with the OEM antennas was
> only 3db better on the big antenna. Thinking maybe the radome was an
> issue, I took it off and saw about another 2db improvement.
>
> I had fun building the antenna and I learned a lot. I just bought a pair
> of OEM high performance (9dbi gain) antennas off of eBay. Someone
> suggested running the router up my tower in an enclosure. Neat idea...
>
> Ken KG0WX

Hi Ken

You might want to look at an "Acess point" to locate up at the antenna so
you can still use the other ports in your router.

Jerry

726. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 19:39:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Ppd_f.9533$4L1.7041@newssvr11.news.prodigy.com>
Source record: 61267

Richard Clark wrote:
> Odd you chose to deviate from technical discussion to explain
> "seeming" in terms of fornication and masturbation. You offer no
> quantifiables, ...

Suffice it to say that at my age, the quantifiables are not
what they used to be. :-)
--
73, Cecil http://www.qsl.net/w5dxp

727. Re: Given my restrictions, how can I improve my HF antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 19:41:14 UTC
From: Thomas anonymous <Thomas.anonymous.260mze@news.radiobanter.com>
Message-ID: <Thomas.anonymous.260mze@news.radiobanter.com>
Source record: 61177

Hey Dave, about the 'shielded, balanced line' idea --- you know how the whole idea behind using twinlead (or any balanced feedline, I guess) instead of coax is because twinlead (or any balanced line, i suppose) is supposed to much less lossy --- I'm wondering if I were to make a balanced line that is also shielded, like you suggested, would this not provide the best of both worlds? It would have the convenience of shielded coax (able to be run in places that twinlead couldn't) AND perhaps also be less lossy than coax? Or would it? How lossy would such a balanced, shielded feedline be? Do you know, offhand, Dave? I'm not well versed in RF circuitry. All I can really do is look at it in terms of it being a simple resistor, in which case, I suppose having 2 parallel feedlines would have half the ohmic losses (I think), but there's clearly a whole lot more to it than just this.
:)

73 from grid CN89od

--
Thomas anonymous

728. Re: 16 el coaxial colinear (2.4ghz) question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 19:56:15 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <0g5og3-bsa.ln1@p400bob.personal.cox.net>
Source record: 61269

Hi Ken

Further to my last about a narrow vertical beamwidth.

http://members.cox.net/vk2yqa/pattern2.png

Is a quick and rough modeling of a 16 el collinear. Note the half power beamwidth of only 4 degrees...

Cheers Bob

729. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 20:02:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gLd_f.9541$4L1.7576@newssvr11.news.prodigy.com>
Source record: 61268

John Popelish wrote:
> Go back and ponder what I wrote.
> Too much has been clipped for my elaboration to have any continuity.

Sorry, I don't respond well to primrose paths. What keeps you
from simply stating your point?

> It is a koan.

Sorry, I don't respond well to "nonsensical questions". What
keeps you from simply stating your point?

Is it, if your point turns out to be wrong, you want me to
take the heat?

> If you have no interest in anything but butting heads with the people
> who have disagreed with you, then, please stop responding to my posts.

If you are into playing games, you are responding to the
wrong person. Try W8JI or W7EL instead.
--
73, Cecil http://www.qsl.net/w5dxp

730. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 20:05:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <BOd_f.9542$4L1.6714@newssvr11.news.prodigy.com>
Source record: 61271

John Popelish wrote:

> Cecil Moore wrote:
>> For instance, what is the current at the end of 200 feet of RG-58
>> terminated by a 50 ohm antenna used on 446 MHz when the source
>> current is 2 amps?
>
> Somewhat less then 2 amps.

Does "somewhat" cover 24 dB of losses? :-) The point is that the
current "drops" by exactly the same amount as the voltage. That's
a characteristic of distributed networks as opposed to lumped
circuits. In a Z0 RF environment, the current has to "drop" by exactly
the same amount as the voltage to maintain the Z0 ratio. There are
really no "across" and "through" concepts as exist in DC circuitry.

>> I guess I'm so dense that I need help in proving what you think
>> I can prove with that information. Right now, I am apparently
>> missing something, maybe because of too much California Merlot.
>
> Sounds like something I might do, this afternoon.

Which, helping or imbibing? :-)
--
73, Cecil http://www.qsl.net/w5dxp

731. Re: 16 el coaxial colinear (2.4ghz) question - How 'bout this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 20:25:13 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <T4e_f.558$B42.529@dukeread05>
Source record: 61272

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:0g5og3-bsa.ln1@p400bob.personal.cox.net...
> Hi Ken
>
> Further to my last about a narrow vertical beamwidth.
>
> http://members.cox.net/vk2yqa/pattern2.png
>
> Is a quick and rough modeling of a 16 el collinear. Note the half power
> beamwidth of only 4 degrees...
>
> Cheers Bob

Wow - that's sharp! It explains why I lost the signal in my front yard.

How about this version?

http://martybugs.net/wireless/collinear.cgi

I just built it out of a coat hanger, soldered to the old coax
feedpoint from the last "experiment". It performs pretty good
but I calculate 2.14db of losses in the line. Something my
back of the set antennas don't have to deal with.

What about expanding the above antenna?

Ken KG0WX

732. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 20:27:03 UTC
From: "Peter O. Brackett" <none@no-such-domain.nul>
Message-ID: <r6e_f.5057$i41.3647@newsread1.news.atl.earthlink.net>
Source record: 61273

Gamma Fans:

One area of practical interest for which Zo is not "real" occurs over
[broad] ranges is in the area of application of the so-called "last mile"
[for you Newbies that might be "first mile" (grin)] of POTS (Plain Old
Telephone Service) twisted pair transmission lines to a variety of
communications "last mile" communications systems.

Over the frequency ranges of interest for telephone cable applications i.e.
from below 25Hz or so for some signalling and on up to several hundred kHz
or even a few MHz for xDSL applications such as ISDN BA and HDSL, T1,
etc..., the telephone twisted pair exhibits a Zo that varies all over the
map!

In this arena, complex Zo and highly variable Gamma is the norm, in this
twisted pair media and for those kinds of applications, unfortunately for
Mr. Smith Zo is NOT purely resistive.

The Zo of twisted pair ranges rom very nearly purely capacitive impedance of
several thousand kOhms at low frequencies to purely resistive near 100 Ohms
at the higher ends.

Analysis and design of systems that operate over this 5-6 decade range of
frequencies must perforce use complex Zo!

Smith's venerable chart is completely useless. Smith's Chart is only for
"amateurs" who use transmission lines in very limited ways.

The complex reflection coeficient in all of its' glory reigns supreme for
those practical and realistic design and application scenarios.

Thoughts, comments?

--
Pete k1po
Indialantic, FL.

"Wes Stewart" <n7ws*@*yahoo.com> wrote in message
news:7bcf32hmbefldctb9b7mdmh76bbplmnluo@4ax.com...
> On Sat, 08 Apr 2006 01:34:33 GMT, Cecil Moore <mycall@hotmail.com>
> wrote:
>
>>Reg Edwards wrote:
>>> But, believe it or not, under certain load conditions the reflection
>>> coefficient Gamma can exceed unity. Indeed, at a sufficiently low
>>> frequency, Gamma can approach 1+Sqrt(2) = 2.414
>>

>>That agrees with Chipman who says it only occurs in lossy lines.
>
> But in theory, the line can have loss and this does not occur :-)
>

733. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 20:46:05 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <ioe_f.583$Et.437@fe09.lga>
Source record: 61274

<w8ji@akorn.net> wrote in message
news:1144583024.698268.212720@z34g2000cwc.googlegroups.com...
>
> Yuri Blanarovich wrote:
>> Yuri wrote:
>> > You agree that impedance along the radiator changes, being low at the
>> > bottom, around tens of ohms, to being high at the top, around thousands
>> > of
>> > ohms.
>>
>>)Tom replied:
>>)I never said that. What do you mean by reactance? The X can be very
>>)high but radiation resistance very low even near the open end.
>>
>> I really give up. What's the point. This is a typical example of Tom's
>> response to technical argument or trying to go step by step. I am talking
>> impedance, he "knows" I mean reactance. As I said, I get better response
>> from a brick wall.
>> No wonder he duntgetit! Oh well!
>
> Yuri,
>
> Part of communicating is understanding the words the other person is
> using. I'm only trying to understand what you intend the words you use
> mean.
> Please don't blame me for trying to sort out what you are saying. If
> you mean "reactance", say "reactance" and not "impedance". If you mean
> "through", say "through" and not "across".

Really good one Tom! Why twist and dance?
If you don't know what the impedance is please read 2005 ARRL Handbook: page
4.42 Impedance (re Inductance) and
page 22.1 Impedance (re Antennas)
If we measure current drop from one end of the the coil to the other, we see
current drop across the coil.
(You would love "through" because you can then "prove" that if it flows
through it has to be the same, right?)

> When you use "across", I guessed and thought you really meant "through"
> or "at each end".
>
> When you used "impedance", I couldn't guess and figure out if you meant
> the scalar impedance, vector impedance, resistance, reactance, or what.
> It could mean too many things.

I meant freakantance, just could not express it :-)
Nice try! Keep on twisting. Before you didn't get it, now you don't want to get it.

Let's back off one more giant step back to measurements. Show where W9UCW was "cheating" in his test setup, pictures and comments at
http://www.k3bu.us/loadingcoils.htm
where he shows clearly that RF current drops significantly across (through) the loading coil, just like it drops across (through) the resonant antenna (piece of wire or tubing) from max at the base, to zero at the tip. I venture to say that (most) everybody knows that impedance of such resonant radiator is low, about few ohms, at the base to thousands of ohms at the tip. If you don't know or get that, no point of discussing current magnitude at the ends of the loading coil.
>
> 73 Tom
>

73 Yuri, K3BU

734. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 20:48:05 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <9qe_f.57498$F_3.30487@newssvr29.news.prodigy.net>
Source record: 61275

Cecil Moore wrote:
> John Popelish wrote:
>
>> Cecil Moore wrote:
>>
>>> For instance, what is the current at the end of 200 feet of RG-58
>>> terminated by a 50 ohm antenna used on 446 MHz when the source
>>> current is 2 amps?
>>
>>
>> Somewhat less then 2 amps.
>
>
> Does "somewhat" cover 24 dB of losses? :-) The point is that the
> current "drops" by exactly the same amount as the voltage. That's
> a characteristic of distributed networks as opposed to lumped
> circuits. In a Z0 RF environment, the current has to "drop" by exactly
> the same amount as the voltage to maintain the Z0 ratio. There are
> really no "across" and "through" concepts as exist in DC circuitry.
>
>>> I guess I'm so dense that I need help in proving what you think
>>> I can prove with that information. Right now, I am apparently
>>> missing something, maybe because of too much California Merlot.
>>
>>
>> Sounds like something I might do, this afternoon.
>
>
> Which, helping or imbibing? :-)

Merlot is what we Californians ship to out of state Republicans
in hopes of poisoning them into not voting in the next election.
73,
Tom Donaly, KA6RUH

735. Re: 16 el coaxial colinear (2.4ghz) question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 21:00:32 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <4439752a_4@newsfeed.slurp.net>
Source record: 61176

"Bob Bob" wrote
> My first thought would be that a collinear with such a high gain would
> have a very narrow vertical beamwidth. ie a small angle off the vertical
> where mounted would have the remote site some dB down off the main lobe.

As a point of reference, commercial UHF broadcast TV transmit antennas can have elevation gains of 36X or more (~17.7 dBi); still they produce their predicted signal strengths for their ERP and height above ground over their line-of-sight coverage areas.

RF

736. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 21:09:07 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <TJe_f.57504$F_3.4297@newssvr29.news.prodigy.net>
Source record: 61178

Peter O. Brackett wrote:

> Gamma Fans:
>
> One area of practical interest for which Zo is not "real" occurs over
> [broad] ranges is in the area of application of the so-called "last mile"
> [for you Newbies that might be "first mile" (grin)] of POTS (Plain Old
> Telephone Service) twisted pair transmission lines to a variety of
> communications "last mile" communications systems.
>
> Over the frequency ranges of interest for telephone cable applications i.e.
> from below 25Hz or so for some signalling and on up to several hundred kHz
> or even a few MHz for xDSL applications such as ISDN BA and HDSL, T1,
> etc..., the telephone twisted pair exhibits a Zo that varies all over the
> map!
>
> In this arena, complex Zo and highly variable Gamma is the norm, in this
> twisted pair media and for those kinds of applications, unfortunately for
> Mr. Smith Zo is NOT purely resistive.
>
> The Zo of twisted pair ranges rom very nearly purely capacitive impedance of
> several thousand kOhms at low frequencies to purely resistive near 100 Ohms
> at the higher ends.
>
> Analysis and design of systems that operate over this 5-6 decade range of
> frequencies must perforce use complex Zo!
>
> Smith's venerable chart is completely useless. Smith's Chart is only for
> "amateurs" who use transmission lines in very limited ways.
>
> The complex reflection coeficient in all of its' glory reigns supreme for
> those practical and realistic design and application scenarios.
>
> Thoughts, comments?
>
> --
> Pete k1po
> Indialantic, FL.
>
>
> "Wes Stewart" <n7ws*@*yahoo.com> wrote in message
> news:7bcf32hmbefldctb9b7mdmh76bbplmnluo@4ax.com...
>
>>On Sat, 08 Apr 2006 01:34:33 GMT, Cecil Moore <mycall@hotmail.com>

>>wrote:
>>
>>
>>>Reg Edwards wrote:
>>>
>>>>But, believe it or not, under certain load conditions the reflection
>>>>coefficient Gamma can exceed unity. Indeed, at a sufficiently low
>>>>frequency, Gamma can approach 1+Sqrt(2) = 2.414
>>>
>>>That agrees with Chipman who says it only occurs in lossy lines.
>>
>>But in theory, the line can have loss and this does not occur :-)
>>
>
>
>

How are you, Peter? Is this some kind of religious controversy? I can't
imagine hams having any use for twisted pair transmission lines, but
maybe you can give your lines some fractal qualities, or show how
current can flow four directions at the same time in the same place in
them or the voltage at any given point on one of them must have 25
possible values simultaneously, or that the impedance on a typical line
is proportional to the square root of Cecil's forearm. In fact, giving
them any qualities that are impossible will endear them to
the great post hog on this newsgroup and start a never ending thread.
73,
Tom Donaly, KA6RUH

737. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 21:22:23 UTC
From: richardharrison@webtv.net
Message-ID: <2025-44397B0F-519@storefull-3252.bay.webtv.net>
Source record: 61179

Cecil, W5DXP wrote:
"There is no phase information in standing wave current phase."

Kraus and Terman agree with Cecil.

Kraus writes on page 239 of his 1950 edition of "Antennas":
"It is generally assumed that current distribution of an infinitesimally thin antenna (l/a=infinity) is sinusoidal, and that the phase is constant over a 1/2-wavelength interval, changing abruptly by 180-degrees between intervals."

This agrees with Terman who writes on page 94 of his 1955 edition of "Electronic and Radio Engineering":
"When the load impedance does not equal the characteristic impedance (as at the open-circuit at the standing-wave antenna tip), the phase relations are complicated by the presence of the reflected wave. The phase of the resulting voltage (or current) then oscillates about the phase of the voltage (or current) of the incident wave , as illustrated in Fig. 4-5.The phase shift under these conditions tends to be concentrated in regions where the voltage (or current) goes through a minimum;----."

Pity the fool who argues with Kraus or Terman.

Best regards, Richard Harrison, KB5WZI

738. Counterpoise wire length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 21:49:29 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <2JidnXYWTozFHKTZ4p2dnA@adelphia.com>
Source record: 61180

Counterpoise wire length. I've heard that it should be 1/4 wave, and then again I've heard it should be 1/2. Which is correct, or will they both work?

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv

-

739. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 22:37:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123j34t8lqp37c5@corp.supernews.com>
Source record: 61181

John Popelish wrote:
> Roy Lewallen wrote:
>> John Popelish wrote:
>>
>> A point of clarification to John's posting:
>>
>> When a standing wave exists on a transmission line, the phase of the
>> voltage or current is fixed (other than periodic phase reversals) with
>> position only if the end of the line is open or short circuited.
>> Otherwise, the phase of voltage and current will change with position.
>
> Is that because the result is not a pure standing wave (superposition of
> two equal and oppositely traveling waves), but a superposition of a pair
> of traveling oppositely traveling waves of different amplitudes?

Yes, but I wouldn't put it quite that way. I prefer to say that this is simply a special case of the more general result you get when you sum forward and reverse waves. Nothing magical or abrupt happens when the two traveling waves are equal in amplitude -- if they're slightly different, you get a little phase shift of the total current with position along the wire, the current minima aren't quite zero, and the spatial shape of the amplitude of the total current -- that is, the shape of the standing wave -- isn't quite sinusoidal. Making the amplitudes more and more different smoothly transitions the nature of the total current until in the special case of the reverse traveling wave being zero you have the distribution of a pure traveling wave.

Roy Lewallen, W7EL

740. Re: 16 el coaxial colinear (2.4ghz) question - How 'bout this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 22:40:41 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <a4fog3-f4b.ln1@p400bob.personal.cox.net>
Source record: 61184

Hi Ken

Note when I modeled the 16 element I did so as a series of dipoles fed in phase rather than use the coax/crossover design.

I felt like checking your statement about being unable to receive in the front yard. At around 45 degrees down from the antenna the NEC2 output says that you'll get a lobe between 20 and 30dB down from an isotropic (or 35-45dB down from the max gain) I'll admit my near close in signal theory doesnt really exist but a path of 800m has about 106dB of loss. If you knock that back to 12 metres (6dB every time you halve) you have about 70dB path loss. If you then take a WAP kind of power level of around 10dBm the RX signal at 12m with a halve wave is going to be around (10-70-25) -85dBm. This kind of corelates with the lowest usable signal for WiFi! There ya go!

I like the URL you sent as being more predictable/easier to construct that using bits of coax. Keep in mind that progressively longer and longer colinears are more and more critical to build and the construction method that is being used is not really optimal in the area of spacing between elements. You could probably pick a much better design. I think however that you need to sit back and consider what you are trying to achieve. Are you setting up a personal WiFi LAN for others to use or just for specific contacts? If you are wanting to work in one direction (or use a rotator) it might be more effective to use a corner reflector and maybe 4 elements in phase. This will be much less critical in construction. Remoting the WAP will make a lot of sense too as you'll lose the line loss! Comments?

Cheers Bob

Ken Bessler wrote:

>
>
> Wow - that's sharp! It explains why I lost the signal in my front yard.
>
> How about this version?
>
> http://martybugs.net/wireless/collinear.cgi
>
> I just built it out of a coat hanger, soldered to the old coax
> feedpoint from the last "experiment". It performs pretty good
> but I calculate 2.14db of losses in the line. Something my
> back of the set antennas don't have to deal with.
>

> What about expanding the above antenna?
>
> Ken KG0WX
>
>

741. Re: Counterpoise wire length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 22:53:07 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <ofg_f.137$BX4.97@fe12.lga>
Source record: 61182

Counterpoise to what?

You need to describe what are you trying "counterpoison".

Yuri, K3BU

"Harbin" <harbinjr@adelphia.net> wrote in message
news:2JidnXYWTozFHKTZ4p2dnA@adelphia.com...
> Counterpoise wire length. I've heard that it should be 1/4 wave, and then
> again I've
> heard it should be 1/2. Which is correct, or will they both work?
>
> --
> SeeYaa:) Harbin Osteen KG6URO
>
> This is YOUR future:
> http://halturnershow.com/aztlan_caps.wmv
>
> -
>

742. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 23:00:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123j4h2b1t00a8f@corp.supernews.com>
Source record: 61183

I have one piece, and it measures 0.745.

Roy Lewallen, W7EL

743. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 23:15:58 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <443995af$0$1012$39cecf19@news.twtelecom.net>
Source record: 61185

Cecil Moore wrote:

> Tom Ring wrote:
>
>> w8ji@akorn.net wrote:
>>
>>> Answer the question Cecil, how can we have charge movement over a small
>>> length of conductor (in terms of the wavelength) in two directions at
>>> the same time, or a drift velocity in two directions at once?
>>>
>> Cecil and Co. are not interested in real physics, math, or
>> engineering. They have made up their own. As I said to Roy, you may
>> as well give up.
>
>
> Tom, I learned this stuff at Texas A&M in the 50's and it was
> decades old already, having been developed before I was born.
> Are you also willing to deny the existence of simultaneous
> forward and reflected EM waves?

Nope, but that's not what you're arguing about.

tom
K0TAR

744. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 23:35:30 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <1l0j32dpg7i9o80444qb6nm591hpgab2lc@4ax.com>
Source record: 61186

On Sun, 09 Apr 2006 21:09:07 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Peter O. Brackett wrote:
>
>> Gamma Fans:
>>
>> One area of practical interest for which Zo is not "real" occurs over
>> [broad] ranges is in the area of application of the so-called "last mile"
>> [for you Newbies that might be "first mile" (grin)] of POTS (Plain Old
>> Telephone Service) twisted pair transmission lines to a variety of
>> communications "last mile" communications systems.
>>
>> Over the frequency ranges of interest for telephone cable applications i.e.
>> from below 25Hz or so for some signalling and on up to several hundred kHz
>> or even a few MHz for xDSL applications such as ISDN BA and HDSL, T1,
>> etc..., the telephone twisted pair exhibits a Zo that varies all over the
>> map!
>>
>> In this arena, complex Zo and highly variable Gamma is the norm, in this
>> twisted pair media and for those kinds of applications, unfortunately for
>> Mr. Smith Zo is NOT purely resistive.

Aren't you supposed to normalize the chart to Zo? Nothing Mr. Smith
said required Zo to be resistive.

745. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 23:36:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <HTg_f.9566$4L1.45@newssvr11.news.prodigy.com>
Source record: 61187

Tom Donaly wrote:
> Merlot is what we Californians ship to out of state Republicans
> in hopes of poisoning them into not voting in the next election.

What do you ship out to Libertarians?
--
73, Cecil http://www.qsl.net/w5dxp

746. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 23:41:46 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <qg6j329ssm7v5fgpu5ajugf1it58um1e0h@4ax.com>
Source record: 61188

On Sun, 09 Apr 2006 16:00:48 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>I have one piece, and it measures 0.745.
>

This is a bit like the previous discussions on Buryflex!

I read an interesting article on the 'net by NEC on a production
system for foam dielectric coax for low microwave frequencies... it is
clearly a greater challenge than extruding PE for solid dielectric.

Reg's response is interesting, I draw the conclusion that a 'quick and
dirty' confirmation of quality of a foam cable is whether its measured
VF is close to spec, it is it off, so is the Zo likely to be off.

Owen
--

747. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 23:42:56 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <9o6j321edov88om57p8dig083sm3i6bjgo@4ax.com>
Source record: 61189

On Sun, 09 Apr 2006 16:35:30 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>On Sun, 09 Apr 2006 21:09:07 GMT, "Tom Donaly"
><dtdonaly@sbcglobal.net> wrote:
>
>>Peter O. Brackett wrote:
>>
>>> Gamma Fans:
>>>
>>> One area of practical interest for which Zo is not "real" occurs over
>>> [broad] ranges is in the area of application of the so-called "last mile"
>>> [for you Newbies that might be "first mile" (grin)] of POTS (Plain Old
>>> Telephone Service) twisted pair transmission lines to a variety of
>>> communications "last mile" communications systems.
>>>
>>> Over the frequency ranges of interest for telephone cable applications i.e.
>>> from below 25Hz or so for some signalling and on up to several hundred kHz
>>> or even a few MHz for xDSL applications such as ISDN BA and HDSL, T1,
>>> etc..., the telephone twisted pair exhibits a Zo that varies all over the
>>> map!
>>>
>>> In this arena, complex Zo and highly variable Gamma is the norm, in this
>>> twisted pair media and for those kinds of applications, unfortunately for
>>> Mr. Smith Zo is NOT purely resistive.
>
>Aren't you supposed to normalize the chart to Zo? Nothing Mr. Smith
>said required Zo to be resistive.
>

But most of the charts don't scale the area where the magnitude of the
reflection coefficient is greater than 1.

Owen
--

748. Re: Please explain side lobe statement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 23:45:50 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44399cae$0$1004$39cecf19@news.twtelecom.net>
Source record: 61190

Richard Clark wrote:

> On Sat, 08 Apr 2006 20:37:31 -0500, Tom Ring <news0002@taring.org>
> wrote:
>
>
>>I'm not sure what Richard could be talking about.
>
>
> Hi Tom,
>
> Compare a yagi to a rhomboid.
>
> 73's
> Richard Clark, KB7QHC

Point taken. They are tough to rotate, though. Also if you stack yagis
properly, things get much better.

tom
K0TAR

749. Re: 16 el coaxial colinear (2.4ghz) question - How 'bout this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 23:49:04 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <%3h_f.579$B42.454@dukeread05>
Source record: 61191

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:a4fog3-f4b.ln1@p400bob.personal.cox.net...
> Hi Ken
>
> Note when I modeled the 16 element I did so as a series of dipoles fed
> in phase rather than use the coax/crossover design.
>
> I felt like checking your statement about being unable to receive in the
> front yard. At around 45 degrees down from the antenna the NEC2 output
> says that you'll get a lobe between 20 and 30dB down from an isotropic
> (or 35-45dB down from the max gain) I'll admit my near close in signal
> theory doesnt really exist but a path of 800m has about 106dB of loss.
> If you knock that back to 12 metres (6dB every time you halve) you have
> about 70dB path loss. If you then take a WAP kind of power level of
> around 10dBm the RX signal at 12m with a halve wave is going to be
> around (10-70-25) -85dBm. This kind of corelates with the lowest usable
> signal for WiFi! There ya go!
>
> I like the URL you sent as being more predictable/easier to construct
> that using bits of coax. Keep in mind that progressively longer and
> longer colinears are more and more critical to build and the
> construction method that is being used is not really optimal in the area
> of spacing between elements. You could probably pick a much better
> design. I think however that you need to sit back and consider what you
> are trying to achieve. Are you setting up a personal WiFi LAN for others
> to use or just for specific contacts? If you are wanting to work in one
> direction (or use a rotator) it might be more effective to use a corner
> reflector and maybe 4 elements in phase. This will be much less critical
> in construction. Remoting the WAP will make a lot of sense too as
> you'll lose the line loss! Comments?
>
> Cheers Bob
>

That's great info, Bob - btw my router puts out +20dbm and the
background noise level in the receiver @ 2.422ghz is -97dbm +/-
2-3db....

As far as my purpose, I'm trying to get access when I go to a park
to go /p on 40m. I want to be able to access the DX cluster &
HF Pack users as well as check e-mail.

I did a little research and the antennas I bought on eBay are 7dbi
gain with, of course no feedline losses. No matter how much I
crunch the numbers, I just can't find a more cost effective system.

Ken KG0WX

750. Re: Please explain side lobe statement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-09 23:51:59 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44399e20$0$1005$39cecf19@news.twtelecom.net>
Source record: 61192

Richard Clark wrote:

> On Sat, 08 Apr 2006 20:37:31 -0500, Tom Ring <news0002@taring.org>
> wrote:
>
>
>>I'm not sure what Richard could be talking about.
>
>
> Hi Tom,
>
> Compare a yagi to a rhomboid.
>
> 73's
> Richard Clark, KB7QHC

And, as I said, for some, perhaps many, contesting situations, low side lobes are a good idea. On the east and west coasts, it's often good to have as much F/B and F/S as possible because of the population density and direction of it, while in the midwest the situation is quite different, with few stations scattered all over the map, and it's desirable to have sidelobes and rear lobes around -15 or so.

tom
K0TAR

751. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 01:02:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123jbl8ccov1sbe@corp.supernews.com>
Source record: 61193

Owen Duffy wrote:
> . . .
> Reg's response is interesting, I draw the conclusion that a 'quick and
> dirty' confirmation of quality of a foam cable is whether its measured
> VF is close to spec, it is it off, so is the Zo likely to be off.

I don't agree that this is a good test. The Z0 of cables with solid PE insulation varies considerably, and it's doubtful that the variation is due to variable dielectric constant of the solid insulation. So why should we assume that Z0 variation in foamed dielectric cable is due solely or mostly to the dielectric density?

Roy Lewallen, W7EL

752. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 01:48:47 UTC
From: w8ji@akorn.net
Message-ID: <1144633727.401257.192850@i40g2000cwc.googlegroups.com>
Source record: 61194

> Owen Duffy wrote:
> > . . .
> > Reg's response is interesting, I draw the conclusion that a 'quick and
> > dirty' confirmation of quality of a foam cable is whether its measured
> > VF is close to spec, it is it off, so is the Zo likely to be off.

Roy Lewallen wrote:
> I don't agree that this is a good test. The Z0 of cables with solid PE
> insulation varies considerably, and it's doubtful that the variation is
> due to variable dielectric constant of the solid insulation. So why
> should we assume that Z0 variation in foamed dielectric cable is due
> solely or mostly to the dielectric density?

That's right.

More important, didn't he say he is matching 35 ohm elements in a
vertical array. I'd think mutual coupling would cause much bigger
errors than the cable unless he is feeding the elements either at 0 or
180 degree phase. Why worry about Vf and cable impedance when the
lements are all over the place in impedance?
:-)

73 Tom

753. Re: Velocity Factor (VP) for RG8X?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 01:52:25 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <t6ej32h4suc3gnpi1hujcuhcsnk726q2qu@4ax.com>
Source record: 61195

On Sun, 09 Apr 2006 18:02:28 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Owen Duffy wrote:
>> . . .
>> Reg's response is interesting, I draw the conclusion that a 'quick and
>> dirty' confirmation of quality of a foam cable is whether its measured
>> VF is close to spec, it is it off, so is the Zo likely to be off.
>
>I don't agree that this is a good test. The Z0 of cables with solid PE
>insulation varies considerably, and it's doubtful that the variation is
>due to variable dielectric constant of the solid insulation. So why
>should we assume that Z0 variation in foamed dielectric cable is due
>solely or mostly to the dielectric density?

The thinking is more the case that the foam density / dielectric
constant is apparently very hard to control, and in cheap cables with
poor QA, a probably source of failure to meet spec.

Owen
--

754. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 01:52:47 UTC
From: "Peter O. Brackett" <none@no-such-domain.nul>
Message-ID: <PTi_f.2475$sq5.47@newsread2.news.atl.earthlink.net>
Source record: 61196

Inductance core fans:

[snip]
> PS. interesting how pot cores have very little inductance change with
> changing gausse.
[snip]

Most, if not all, pot cores used for "precision" inductors and transformers come in matched pairs with a very accurately ground narrow air gap between the two center posts. The Al (or alpha from some mfgs) is accurately set by the width of the air gap as ground during manufacture. The air gap also forms a large part of the overall magnetic path (air having a much larger reluctance than the ferrite). Such pot cores for precision inductors usually have an adjustable slug (set with a non magnetic screwdriver) to allow the finally assembled inductor to be set to an "exact" value.

And so... pot cores intended for use in making precision inductors (as in filters or delay equalizers) or precision transformer applications exhibit little change in inductance over a wide range of conditions simply because of the air gap.

--
Pete k1po
Indialantic By-the-Sea, FL

755. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 02:06:38 UTC
From: w8ji@akorn.net
Message-ID: <1144634798.546962.8210@u72g2000cwu.googlegroups.com>
Source record: 61197

Yuri Blanarovich wrote:
> Let's back off one more giant step back to measurements. Show where W9UCW
> was "cheating" in his test setup, pictures and comments at
> http://www.k3bu.us/loadingcoils.htm
> where he shows clearly that RF current drops significantly across (through)
> the loading coil, just like it drops across (through) the resonant antenna
> (piece of wire or tubing) from max at the base, to zero at the tip.

Displacement currents in the inductor and the very high reactance of
the very short antenna above the coil explain current difference.

Current cannot vanish Yuri. It has to have an alternative path.

I can change current difference at each end of the inductor all over
the place depending on the design of the loading coil, with NO change
in the loading coil position or antenna lengths.

It is the theory you have, that the current is tied to the "missing
degrees", that is wrong.

Without displacement currents there is no current difference at each
end of the coil, it is not caused by "missing degrees. It is caused by
the capacitance above the coil being very low and the capacitance of
the coil to the outside world being much larger. The current is not all
gone in the first few turns either. It is a series reactance/shunt
reactance problem.

73 Tom

756. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 02:22:10 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <mjj_f.68439$dW3.23849@newssvr21.news.prodigy.com>
Source record: 61198

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Merlot is what we Californians ship to out of state Republicans
>> in hopes of poisoning them into not voting in the next election.
>
>
> What do you ship out to Libertarians?

Libertarians don't believe in handouts.
73,
Tom Donaly, KA6RUH

757. Re: 16 el coaxial colinear (2.4ghz) question - How 'bout this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 02:27:38 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <rdsog3-jfb.ln1@p400bob.personal.cox.net>
Source record: 61199

Hi Ken

Well if you are going to a specific location (the park) you may as well use a directive antenna like a corner reflector/gridpack etc. In fact you could be real smart and use a 2m handheld and a low data rate link to swing the antenna in whatever direction you choose (eg packet talking to a home PC, PC connected to rotator. You could even make it as simple as a two state tone decoder for CW or CCW the antenna whilst watching the WiFi signal) There are some quite broad reflector based designs out there that give good gain on 2.4GHz. For example a 900x700mm gridpack will give you about 25dBi.

I guess you are using one of the amateur radio 2.4GHz channels? You can use a higher EIRP than the normal WiFi is limited to. (from memory 30dBm EIRP is the legal max for unlicensed use) You do need to identify though. (A simple text based ping might be enough)

I am surprised at the -97dBm sensitivity. The links I worked on in the past we used -87 for 11MB 802.11b predictions. I guess your figure would be at the lowest data rate and thus effective bandwidth. You can't beat Boltzmann! The Ethernet microwave data radios I work with nowadays need about 20-25dB s/n for a 50MB/sec channel that covers about 10MHz b/w. Thermal noise in 10MHz is about -103dBm so we need better than -83 for a good path. Our radios dont change speeds/bandwidth on the fly though. Interference will be your greatest enemy though...

One of you other posters suggested remoting the router box to remove the cable loss problem. It is the place where most of your problems lie. Even moving it part the distance will help. You might also look at a better coax. We use to use LMR400 extensively. It was much cheaper than RG213 and lower loss as well.

Oh and be careful with the WAP etc setup as regards "maximum distance". We had a problem early on where we left it at the default for a 10km path and the ACKs (or something) kept crashing and kept the speed down. The distance number introduces some kind of ACK delay..

Good luck!

Cheers Bob VK2YQA

Ken Bessler wrote:

>
> That's great info, Bob - btw my router puts out +20dbm and the
> background noise level in the receiver @ 2.422ghz is -97dbm +/-
> 2-3db....

758. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 03:16:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123jjfqq228vcdb@corp.supernews.com>
Source record: 61200

John Popelish wrote:
>
> If we assume the coil is an idealized lumped inductance with no stray
> capacitance at all (not a real inductor) then it would have the same
> instantaneous current at each end and that current would be zero, since
> it has zero size. In other words it would fit entirely in the point
> that holds the node.
>
> Real inductors with stray capacitance and imperfect magnetic coupling
> for all parts of its internal current path, would have a phase shift in
> the current at opposite ends, so they would have current at their ends
> that was 180 degrees out of phase, if they were centered on the node
> points. For half of each cycle, current would be entering each end, and
> for the other half of each cycle, current would be leaving each end.
> Both those currents would detour out the sides f the inductor into
> displacement current through the stray capacitance of the surface of the
> inductor to its surroundings.
>
> I think (with very little actual knowledge of the software) this
> conceptual model is how EZNEC handles current through a modeled inductor
> and how it can have different currents at the inductor ends, without
> being aware of whether those currents are driven by traveling or
> standing waves. It is all based on current through inductor segments
> and voltage across capacitive segments. If the segments are small
> enough, it is a good approximation of a distributed solution.

There are two ways of modeling an inductor in EZNEC. One is by using an inductive "load". This is a pure lumped inductance, which takes up zero physical space and whose currents are equal at its two terminals. It does not couple or react at all to its surroundings other than via its terminals, and its voltage-current characteristics are dictated by that of a pure inductance, v = L di/dt. For a number of reasons discussed many times here, this isn't a good model for many or most typical loading coils.

The other way of modeling an inductor in EZNEC is by making it from conductors -- "wires" -- arranged in a polygonal helix. (EZNEC v. 4.0 provides an automated way to generate this structure.) These wires are treated exactly the same as all other wires in the model. As long as the turns aren't too close together (conservatively, closer than several wire diameters, but in practice good results are usually obtained with spacing as close as one diameter air space between wires), it does a very good job of calculating the inductor currents and radiation. (It's a little generous about loss if the turns are close because it doesn't account for proximity effect.)

EZNEC calculates the total current by first calculating the self and mutual impedances of every segment in the model from a fundamental equation, then using Ohm's law to find the total current in each segment from those impedances and the voltages from the user specified sources.(*) It's not aware of traveling or standing waves. The presence or absence of standing waves -- that is, a changing magnitude of current with position -- can be seen by viewing its output. Displacement current is a consequence of mutual coupling between segments -- in a dipole, the dominant coupling is to the other half of the dipole, and in a grounded monopole, to ground. However, each segment couples to every other, even on its own wire, and it's this coupling which brings about the current distribution that ultimately occurs.

EZNEC deals only with total currents and makes no effort to detect, use, or break up total current into individual traveling waves. It isn't aware of whether currents are "driven by traveling or standing waves" if for no other reason that no currents are ever "driven by" traveling or standing waves. Voltage differences cause currents which can be described as traveling waves. When multiple traveling waves are summed to find a total current, the amplitude of the sinusoidal current varies with position along the line, and this envelope is called a "standing wave". A standing wave is simply a description of the magnitude distribution of the total current along a wire or transmission line. It doesn't drive or cause anything -- it's a description of an effect, not a cause. All the fuss about standing waves is a diversion which confuses the issue and deflects attention from the salient issues involved in understanding the topic under discussion.

(*) This is a simplified explanation. For details, see Part I of the NEC-2 manual.

Roy Lewallen, W7EL

759. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 03:27:09 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <jgk_f.156$BX4.47@fe12.lga>
Source record: 61201

This is freakin unbelievable.
You think you are making fool of me and rest of us? You are not answering questions, nor engaging in the exchange. You keep pulling out crap, like first the current is equal, then
"" I can change current difference at each end of the inductor all over the place depending on the design of the loading coil, with NO change in the loading coil position or antenna lengths."

You are getting tangled in your own webs!!!
Tell us what is wrong with W9UCW setup and results. Where did he screw up, what is wrong, and show what you have measured in THE SAME type of setup. Not freakin W8JI coils, not at the base, no weird frequency, not twist and dance.
Just take 40m shorted vertical, make it resonant with DECENT coil like he has about 2/3 up the mast, stick the RF ammeters at both ends and give us the readings. You have the pictures, you should be able to replicate the setup.
Then you tell us that the current is the same at both ends, show us the pictures and describe your setup, meters, frequency and results.
This goes for the rest of the "gurus" that insist on the same.
Then model the loading coil as a solenoid or loading stub of same inductance in EZNEC and show us what you get. Cecil did it, and the silence is deafening!!! Can you explain what is "wrong" with Cecil's examples?

Looks like Belrose should get another pHDuuhh for starting all this misconception and misinformation in ham literature. Pathetic is that some of the "gurus" that should know better, are on the same bandwagon to la-la land.
Stop crap and twist and dance, answer the freakin questions or say nothing. We are not idiots that you BS with "you don't know what I mean by impedance".
So what happened to impedance? Now you know what it is, or is pink electron displacement capacitance current phasor phase mumbo jumbo?

<w8ji@akorn.net> wrote in message
news:1144634798.546962.8210@u72g2000cwu.googlegroups.com...
>
> Yuri Blanarovich wrote:
>> Let's back off one more giant step back to measurements. Show where
>> W9UCW
>> was "cheating" in his test setup, pictures and comments at
>> http://www.k3bu.us/loadingcoils.htm
>> where he shows clearly that RF current drops significantly across
>> (through)
>> the loading coil, just like it drops across (through) the resonant

>> antenna
>> (piece of wire or tubing) from max at the base, to zero at the tip.
>
> Displacement currents in the inductor and the very high reactance of
> the very short antenna above the coil explain current difference.
>
> Current cannot vanish Yuri. It has to have an alternative path.

Have you heard of standing waves?

> I can change current difference at each end of the inductor all over
> the place depending on the design of the loading coil, with NO change
> in the loading coil position or antenna lengths.

That is the progress, first current can't change, now you can make it.

> It is the theory you have, that the current is tied to the "missing
> degrees", that is wrong.
>
> Without displacement currents there is no current difference at each
> end of the coil, it is not caused by "missing degrees. It is caused by
> the capacitance above the coil being very low and the capacitance of
> the coil to the outside world being much larger. The current is not all
> gone in the first few turns either. It is a series reactance/shunt
> reactance problem.
>
> 73 Tom
>

PRICELESS!!!!!
So WHAT IS THE CURRENT AT THE TOP OF THE RESONANT 90 deg (any) VERTICAL?
Same as at the base, because "Current can not vanish Yuri"?
You are jerking our chain or have a real problem.

Suggestion: do some reading on impedance, resonance, standing waves, current and voltage distribution along the antennas, and look at the current curves in books and as produced by EZNEC. Looks like you have no clue how antennas work.

You can have another "last word" that will "show" that you "know" what you are talking about.

73 Yuri

760. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 03:29:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123jk90b36oii42@corp.supernews.com>
Source record: 61202

It's been quite a few years now, so things might have changed. But some time back I learned a bit about the ferrite manufacturing process. It turns out that the green ceramic shrinks by something like 20 or 25 percent during the firing process, with poor control over the amount of shrinkage. The gaps in gapped pot cores, I found, were only nominally the specified gap width -- each pot core was individually ground to meet the Al specification, not some specification on air gap size. This isn't important in using them, but I found it interesting.

What you get with an air gap in trade for effective permeability, is much greater independence of Al from the core characteristics (material permeability and physical size) and therefore much greater stability with regard to temperature and flux density, and much greater flux density capability.

Roy Lewallen, W7EL

Peter O. Brackett wrote:
> Inductance core fans:
>
> [snip]
>> PS. interesting how pot cores have very little inductance change with
>> changing gausse.
> [snip]
>
> Most, if not all, pot cores used for "precision" inductors and transformers
> come in matched pairs with a very accurately ground narrow air gap between
> the two center posts. The Al (or alpha from some mfgs) is accurately set by
> the width of the air gap as ground during manufacture. The air gap also
> forms a large part of the overall magnetic path (air having a much larger
> reluctance than the ferrite). Such pot cores for precision inductors
> usually have an adjustable slug (set with a non magnetic screwdriver) to
> allow the finally assembled inductor to be set to an "exact" value.
>
> And so... pot cores intended for use in making precision inductors (as in
> filters or delay equalizers) or precision transformer applications exhibit
> little change in inductance over a wide range of conditions simply because
> of the air gap.
>
> --
> Pete k1po
> Indialantic By-the-Sea, FL
>
>

761. Re: VSWR AND AUTOMATIC TUNING

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 04:03:51 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <DOk_f.328$QP4.304@fed1read12>
Source record: 61203

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:o3ne321qj2br52tp87t8l29i1a1n2tjkd9@4ax.com...
> On Fri, 7 Apr 2006 22:04:32 -0700, "Sal M. Onella"
> <salmonella@food.poisoning.org> wrote:
>
> >I had a USN antenna experience with an improperly-modified shipboard HF
XMIT
> >antenna. The Radiomen said it was hard to
> >tune to it, the reflected power was always high and they never seemed
able
> >to "get out on it" (meaning poor reception reports from the distant end).
> >
> >When we put the antenna right, all their problems went away.
>
> Hi OM,
>
> What was the problem, and what did you do to fix it?
>
> 73's
> Richard Clark, KB7QHC

The antenna was a trussed whip for 10-30 MHz. The truss frame was
stabilized by four turnbuckles connected to the base through ceramic
insulators. One of the RM's had bonded across the insulators. We were
about to do a routine megger check when my partner spotted it. We couldn't
believe our eyes.

EMI bond straps are appropriate for a lot of things topside. That wasn't
one of them. :-)

"Sal"
(John, KD6VKW; USN 1962 - 1982)

PS: Radiomen are no more, per se. They and the Data Processing Technicians
were rolled into a combined rating of Information Systems Technician - IT.
Where it was once hard to find somebody in Radio Central who knew anything
about RF, it is now twice as hard. For me, it's called Job Security, so I'm
not _really_ complaining.

762. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 04:04:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7Pk_f.9884$4L1.3452@newssvr11.news.prodigy.com>
Source record: 61204

w8ji@akorn.net wrote:
> Current cannot vanish Yuri. It has to have an alternative path.

Forward current is one amp at zero degrees. Reflected current
is one amp at 180 degrees. That creates a standing wave
current node where net current is zero. It has "vanished"
due to superposition.
--
73, Cecil http://www.qsl.net/w5dxp

763. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 04:11:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <eWk_f.9886$4L1.7790@newssvr11.news.prodigy.com>
Source record: 61205

Roy Lewallen wrote:
> EZNEC deals only with total currents and makes no effort to detect, use,
> or break up total current into individual traveling waves.

Then, without effort, EZNEC accurately reports the presence
of traveling waves or standing waves as can be seen from
the graph of the EZNEC results at:

http://www.qsl.net/w5dxp/travstnd.GIF

The graph on the left is for traveling wave current. Its
magnitude is fixed and its phase varies with wire length.
Traveling wave phase can be used to determine the phase
shift through the wire (or through a coil).

The graph on the right is for standing wave current. Its
phase is fixed and its magnitude varies with wire length.
Standing wave magnitude can be used to determine the phase
shift through the wire (or through a coil) by taking the
arc-cosine of the magnitude.
--
73, Cecil http://www.qsl.net/w5dxp

764. Re: vert distortion?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 04:37:17 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <Zhl_f.330$QP4.60@fed1read12>
Source record: 61206

"ml" <m@di.net> wrote in message
news:m-51EAB2.09181409042006@news.verizon.net...
> hi
>
>
> i've noticed a few installations of say a 2m beam vertically mounted to
> a regular metal tv style mast
>
> from looking at it, you have the mast(metal) going between 2 elements
> and longer than the elements
>
> so i was wondering as this is a common mounting style and method
>
> how bad is the beam pattern for rx and tx ? effected by the metal mast?
>
>
>
> it also got me thinking i've noteced some beams as in the above use a
> fiberglass boom while others use metal
>
> how does this effect patterns and efficiency
>
> both from a practical point of view and technically speaking

Here's a partial answer:

I had a 2M copper pipe j-pole suspended vertically and well away from any other metal. I ran the coax through a switchable attenuator into a radio tuned to a local repeater with fairly steady chatter. I set the attenuator to put the radio deep into the noise -- a few dB away from Gone. Then , I took a length of mast, held it vertical and slowly approached the j-pole. I had to get within about one inch to affect the chatter. The direction from which I approached didn't seem to matter. Next, I did a similar experiment on transmit while watching reflected power and saw essentially the same effect.

Theoretically, I think the added capacitance simply detunes the radiating element when a mast is really close, meaning an inch or less. Otherwise, the mast isn't seen as director, since the size is so far off. (Guessing is allowed, right?)

765. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 05:31:00 UTC
From: w8ji@akorn.net
Message-ID: <1144647060.456337.126840@e56g2000cwe.googlegroups.com>
Source record: 61207

Yuri Blanarovich wrote:

> Just take 40m shorted vertical, make it resonant with DECENT coil like he
> has about 2/3 up the mast, stick the RF ammeters at both ends and give us
> the readings. You have the pictures, you should be able to replicate the
> setup.

What is it you are after?

I already posted, years ago, measurements at:

http://www.w8ji.com/mobile_antenna_current_measurements_at_w8ji.htm

> Then you tell us that the current is the same at both ends, show us the
> pictures and describe your setup, meters, frequency and results.

I think what is happening here is you are getting angry and not paying attention to what people are saying. I've already said it is possible to have different currents at each end of a loading coil.

What I disagree with you about is you seem to attribute that difference to some magical property related to the distribution of current based on electrical degrees the loading coil replaces or standing waves, and that is very simply and clearly wrong.

Current cannot "drop" or be "dropped". It can be divided between paths, but it cannot vanish into thin air. The mechanism that allows current to change in an antenna is displacement current, and it comes from capacitance.

The only thing wrong with Barry's setup is he uses large meters compared to the size of the coil, and they are invasive. The meter requires cutting the leads and adding a fairly large bulk into the system. I'd never use thermocoupler meters to measure high impedance systems, magnetic-field coupling systems can be smaller, have less distributed capacitance, and don't require rerouting leads. Current transformer systems are also more accurate and can have much better resolution, and can even be used to determine phase.

Let's not let the measurement method overshadow the real disagreement, however.

The real disagreement is you seem to be saying the missing area of antenna replaced by the inductor and standing wave patterns of current distribution in the antenna are what causes the loading coil to behave as it does. Barry also proposed that, if I am not mistaken.

That is not true.

The single thing that allows an inductor to have a current difference
and phase shift in current along the coil or at each terminal is the
capacitance of the coil to the outside world. That is why we would have
to be very careful NOT to disturb the coil by mounting other large
measurement devices on the coil.

> This goes for the rest of the "gurus" that insist on the same.

The "gurus" you despise go back to Maxwell, who described displacement
current:

http://maxwell.byu.edu/~spencerr/websumm122/node72.html

The term displacement current is not an invention of those you call
"gurus". It is part of physics dating way back to the 19th century.
THAT is why so many people are trying to tell you about displacement
currents, it isn't to make you feel bad.

You have to include displacement currents in any model, or you cannot
have a current taper along the length of a conductor.

> Then model the loading coil as a solenoid or loading stub of same inductance
> in EZNEC and show us what you get. Cecil did it, and the silence is
> deafening!!! Can you explain what is "wrong" with Cecil's examples?

Sure. His explanation of what is happening and the fact he picked a
very special conditions just to satisfy a twisted theory. Roy showed in
his models why Cecil's conclusions were wrong. Practical measurements
will show the same thing.

The ONLY thing that allows a conductor to have current taper along its
length is displacment current. That is a function of the capacitance
from that conductor to the world around that conductor compared to the
impedance presented by the system beyond that point. It is NOT
determined by standing waves. It is not determined by "missing length
replaxed by coil".

> Looks like Belrose should get another pHDuuhh for starting all this
> misconception and misinformation in ham literature. Pathetic is that some of
> the "gurus" that should know better, are on the same bandwagon to la-la
> land.

I'm not sure what motivates you to attack everyone, but at least you
universally seem to hate almost everyone. Jack Belrose is a great guy
and has contributed a great deal with his work. If you finmd something
wrong with what he is saying, tell us what it is. Don't attack the
person, point out the error.

> Stop crap and twist and dance, answer the freakin questions or say nothing.
> We are not idiots

I suppose everyone has a right to their own opinions on that topic.
I've done my best to answer the questions. I hope this post helps
clarify things. Calm down, there is no need to get upset.

Did this help answer your questions?

73 Tom

766. Re: Counterpoise wire length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 05:53:38 UTC
From: w8ji@akorn.net
Message-ID: <1144648418.476325.3080@u72g2000cwu.googlegroups.com>
Source record: 61208

Harbin wrote:
> Counterpoise wire length. I've heard that it should be 1/4 wave, and then again I've
> heard it should be 1/2. Which is correct, or will they both work?

The lowest impedance presented by a single counterpoise wire is when
the counterpoise is resonant and 1/4 wl long electrically.

When a single counterpoise wire is near 1/2 wl long and resonant, it
has a very high end impedance.

If the counterpoise is under a dipole or some other antenna just to
isolate it from ground losses, a 1/2 wl long counterpoise or longer is
best.

If the counterpoise is used as a termination to allow forceing current
into a Marconi antenna or an end-fed antenna, or used to provide a
ground path for unwanted currents, it is best if it is 1/4 wl long.

More counterpoise wires are always better, because the more you use the
less critical length is and the lower loss is. There is of course a
point where more won't help. With 1/4 wl wires, 50 or so placed
radially are near perfect. Adding more won't make a noticeable
difference. Once the counterpoise wires are .025 to .05 wavelengths
apart at the widest points, adding more will generally not help.

I use 100 200 foot long wires on one of my 160 meter verticals. On my
other verticals I have 1/4 wl radials, and once I reached 40-50 radials
adding more made no measureable difference at all.

73 Tom

767. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 10:54:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123kec3l8kg3s01@corp.supernews.com>
Source record: 61209

w8ji@akorn.net wrote:
> Yuri Blanarovich wrote:
> . . .
>> Looks like Belrose should get another pHDuuhh for starting all this
>> misconception and misinformation in ham literature. Pathetic is that some of
>> the "gurus" that should know better, are on the same bandwagon to la-la
>> land.
>
> I'm not sure what motivates you to attack everyone, but at least you
> universally seem to hate almost everyone. Jack Belrose is a great guy
> and has contributed a great deal with his work. If you finmd something
> wrong with what he is saying, tell us what it is. Don't attack the
> person, point out the error.

Jack Belrose, VE2CV, is a highly respected engineer and scientist with an extensive and distinguished professional history. We're very fortunate that he's shared some small part of his extensive knowledge and experience with the amateur community. For a glimpse at his career, see http://www.friendsofcrc.ca/Articles/Belrose-EarlyYears/Belrose%20remembrances.html. No one is always right, but people like Jack have earned my respect and I'll always listen very carefully to what they have to say. Although it doesn't bear directly on his credibility, I've known him for many years and I heartily agree with Tom that he's a great guy.

Roy Lewallen, W7EL

768. Re: 16 el coaxial colinear (2.4ghz) question - How 'bout this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 12:17:25 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <x1s_f.826$B42.564@dukeread05>
Source record: 61210

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:rdsog3-jfb.ln1@p400bob.personal.cox.net...
> Hi Ken

<snip>

> I am surprised at the -97dBm sensitivity.

<snip>

Yea, it's a genuine Atheros card, not just an Atheros chipset. I bought it
based on reports online touting it's high reciever performance and the
fact that it is a mini PCI card, not a pcmcia card.

>
> One of you other posters suggested remoting the router box to remove the
> cable loss problem. It is the place where most of your problems lie.
> Even moving it part the distance will help. You might also look at a
> better coax. We use to use LMR400 extensively. It was much cheaper than
> RG213 and lower loss as well.

That is what I was using - 40' of it.

>
> Oh and be careful with the WAP etc setup as regards "maximum distance".
> We had a problem early on where we left it at the default for a 10km
> path and the ACKs (or something) kept crashing and kept the speed down.
> The distance number introduces some kind of ACK delay..
>
> Good luck!
>
> Cheers Bob VK2YQA

Thanks for all the help, Bob - 73!

Ken KG0WX

769. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 12:32:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <nfs_f.45966$_S7.35712@newssvr14.news.prodigy.com>
Source record: 61211

w8ji@akorn.net wrote:
> I already posted, years ago, measurements at:
>
> http://www.w8ji.com/mobile_antenna_current_measurements_at_w8ji.htm

Those are RMS standing wave measurements. To see what is wrong
with using RMS standing wave measurements please see:

http://www.qsl.net/w5dxp/travstnd.GIF

> I think what is happening here is you are getting angry and not paying
> attention to what people are saying. I've already said it is possible
> to have different currents at each end of a loading coil.

And there phase information in those standing wave current
magnitudes. There is no phase information is standing wave
current phase.

> What I disagree with you about is you seem to attribute that difference
> to some magical property related to the distribution of current based
> on electrical degrees the loading coil replaces or standing waves, and
> that is very simply and clearly wrong.

No, it is your misconceptions about standing wave current
that are very simply and clearly wrong.

> Current cannot "drop" or be "dropped".

RF current drops with the attenuation factor, just like RF
voltage does. Clinging to the lumped circuit model
presuppositions is what causes you to make silly assertions
like the above. Standing wave current periodically drops
to zero in unterminated transmission lines.

> The single thing that allows an inductor to have a current difference
> and phase shift in current along the coil or at each terminal is the
> capacitance of the coil to the outside world.

Is capacitance to the outside world also what allows a wire
to have zero current at one point and two amps of current
90 degrees away. Of course not! The degrees of delay through
the coil is primarily responsible for the difference in
current. That, and where it is places on the standing wave
current curve.

> You have to include displacement currents in any model, or you cannot
> have a current taper along the length of a conductor.

We are talking about displacement current to earth ground and
there is zero displacement current to the outside world ground
yet there's SWR current taper on coaxial transmission lines.
Maybe it's time for you to learn how to add phasors?

> Sure. His explanation of what is happening and the fact he picked a
> very special conditions just to satisfy a twisted theory. Roy showed in
> his models why Cecil's conclusions were wrong. Practical measurements
> will show the same thing.

Roy used standing wave current phase to try to measure the
delay through a coil. That's an invalid measurement. None of
my conditions are special. They just seem special to your
lumped circuit model. The distributed network model works
for all conditions.
--
73, Cecil http://www.qsl.net/w5dxp

770. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 12:36:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Sis_f.45967$_S7.12404@newssvr14.news.prodigy.com>
Source record: 61212

Roy Lewallen wrote:
> Jack Belrose, VE2CV, is a highly respected engineer and scientist with
> an extensive and distinguished professional history.

So are a lot of people who disagree with you.

> No one is always right, ...

You have known for a year now that standing wave current phase
cannot be used to determine the delay through a coil yet you
continue to post those invalid results. Guess you are proof
of your own statement.
--
73, Cecil http://www.qsl.net/w5dxp

771. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 12:58:19 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <e9lk32lopson6j22gj40sgfmh05034lp22@4ax.com>
Source record: 61213

On Sun, 09 Apr 2006 23:42:56 GMT, Owen Duffy <owen@no.where> wrote:

>On Sun, 09 Apr 2006 16:35:30 -0700, Wes Stewart <n7ws*@*yahoo.com>
>wrote:
>
>>On Sun, 09 Apr 2006 21:09:07 GMT, "Tom Donaly"
>><dtdonaly@sbcglobal.net> wrote:
>>
>>>Peter O. Brackett wrote:
>>>
>>>> Gamma Fans:
>>>>
>>>> One area of practical interest for which Zo is not "real" occurs over
>>>> [broad] ranges is in the area of application of the so-called "last mile"
>>>> [for you Newbies that might be "first mile" (grin)] of POTS (Plain Old
>>>> Telephone Service) twisted pair transmission lines to a variety of
>>>> communications "last mile" communications systems.
>>>>
>>>> Over the frequency ranges of interest for telephone cable applications i.e.
>>>> from below 25Hz or so for some signalling and on up to several hundred kHz
>>>> or even a few MHz for xDSL applications such as ISDN BA and HDSL, T1,
>>>> etc..., the telephone twisted pair exhibits a Zo that varies all over the
>>>> map!
>>>>
>>>> In this arena, complex Zo and highly variable Gamma is the norm, in this
>>>> twisted pair media and for those kinds of applications, unfortunately for
>>>> Mr. Smith Zo is NOT purely resistive.
>>
>>Aren't you supposed to normalize the chart to Zo? Nothing Mr. Smith
>>said required Zo to be resistive.
>>
>
>But most of the charts don't scale the area where the magnitude of the
>reflection coefficient is greater than 1.

Most don't, but some do. [g]

772. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 14:54:35 UTC
From: richardharrison@webtv.net
Message-ID: <3989-443A71AB-132@storefull-3256.bay.webtv.net>
Source record: 61214

Tom, W8JI wrote:
"The ONLY thing that allows a conductor to have current taper along its length is displacement current."

In a-c circuits, added to ordinary conduction current there is displacement current, at right angles to the direction of propagation, determined by the rate at which the field energy changes.

Also at right angles to the direction of propagation, and determined by the rate at which energy changes, there is a changing magnetic field, in addition to the changing electric field. Together the electric and magnetic fields exchange energy and produce radiation.

Displacement current which is the a-c current through a capacitor, that has no d-c conduction, is not the"ONLY" thing that allows a conductor to have a current taper along its length.. A conductor can lose energy through dissipation and radiation forever, not just relocate it temporarily through storage in a reactance.

The dissipation line at the end of a rhombic antenna does not handle the entire output of the transmitter at its other end. Most of the energy is already radiated by the time it reaches the dissipation line.

Best regards, Richard Harrison, KB5WZI

773. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 15:12:46 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <NBu_f.4874$YT1.110@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61215

Cecil Moore wrote:

>
> We are talking about displacement current to earth ground and
> there is zero displacement current to the outside world ground
> yet there's SWR current taper on coaxial transmission lines.
> Maybe it's time for you to learn how to add phasors?
>

Cecil,

Sorry, you cannot pick and choose which displacement currents to consider.

It might be helpful to go back to review the fundamentals of Maxwell's equations, including the continuity equation for current, before making these inane comments.

73,
Gene
W4SZ

774. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 15:24:21 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <FMu_f.9372$lm6.5256@bgtnsc05-news.ops.worldnet.att.net>
Source record: 61216

Richard Harrison wrote:

>
> Displacement current which is the a-c current through a capacitor, that
> has no d-c conduction, is not the "ONLY" thing that allows a conductor to
> have a current taper along its length..
>

Richard,

That is incorrect, and even Terman never said such a thing.

Charge is not created or destroyed. It either keeps moving as current, or it is stored. Charge storage is the equivalent of displacement current. The terminology is slightly confusing at times, but it has not changed for over 100 years.

Detailed discussions of this topic are found in virtually every intermediate and advanced textbook on electricity and magnetism.

73,
Gene
W4SZ

775. Re: Please explain side lobe statement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 15:39:32 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <e1du7kfjp2@engnntp2.cig.mot.com>
Source record: 61218

"Dave" <noone@nowhere.com> wrote in message
news:D9mdnWF-HcfoqKTZRVn-jw@crocker.com...
> maybe their 'smaller' means smaller absolute values.. so that would give
> numbers like -15db, -10db, etc... which would indeed be worse.

Somebody finally got the problem.

Side lobes smaller than -20 dB are better. Smaller than -20 dB is -25
dB, -30 dB.

If it was stated as "-20 dB or less", that could/migh be interpreted as -15
dB, -10db. It is a language problem.

Now... What was the OP really asking? and what was the author really trying
to say? Probably what most assumed, but that isn't what he wrote.

73, Steve, K9DCI

776. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 15:43:18 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <e1duemfnh2@engnntp2.cig.mot.com>
Source record: 61219

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:JqEZf.9270$4L1.2237@newssvr11.news.prodigy.com...
> Reg Edwards wrote:
> > But, believe it or not, under certain load conditions the reflection
> > coefficient Gamma can exceed unity. Indeed, at a sufficiently low
> > frequency, Gamma can approach 1+Sqrt(2) = 2.414
>
> That agrees with Chipman who says it only occurs in lossy lines.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Yes. A lossy line nas a non purely real (some X) Zo. Long distance power
grid lines are such.
73, Steve, K9DCI

777. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 16:25:05 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <Hlv_f.1960$aN5.1745@fe10.lga>
Source record: 61217

Speaking as a lurker, I find Roy's and Tom's postings very educational and I appreciate the time they take to do it.

I am a little dense, but I think I have learned four key points (at least, key for me) from this material:

1. One can discuss transmission lines and antennas using pulse analysis or steady-state analysis. When these two are mixed together the results can be a mess.

2. When discussing "phase difference" we need to specify the two components that have the difference. (I.e., phase difference between the current into and out of an inductor is a different animal than the phase difference between current and voltage at a specific point.)

3. Superposition ("adding together") of power computations is not valid in reactive circuits.

4. Displacement current is as real as any other current when dealing with antennas and their components. (I cannot remember "displacement current" ever being mentioned back in the dark ages when I was in EE school. Perhaps the school should remain nameless.)

Bill - W2WO

778. RF propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 17:17:51 UTC
From: MRW <mr.whatever@gmail.com>
Message-ID: <1144689471.102441.87010@z34g2000cwc.googlegroups.com>
Source record: 61220

Hello,

Does this seem logical?

1. The signal strength (example in dBm or mW) from a transmitting source is measured.
2. Assuming most of the attenuation is due to free space loss, the free space loss factor is "added" back to the measured signal to get the ERP of that specific radiation lobe (it could be main, side, or back lobe).
3. The transmitter output is a known value (example 2 Watts).
4. Using the calculated ERP for a specific lobe, I can use the following to determine the loss / gain due to the antenna & cable: loss/gain = 10 log (transmitter output / ERP specific lobe).
5. If I rotate the transmitting antenna to 360 degrees, then I should be able to have a rough picture of its azimuthal radiation pattern at a certain elevation angle.

I'm probably using the terms the wrong way because I think ERP is synonymous to the main lobe of the antenna (right?). But I'm just treating the ERP as specified only to a certain lobe without knowing if its the main, side, or back lobe.

I'm really not sure if this is right. I just want a confirmation whether my logic is wrong, and if so, why? Thanks!

779. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 17:25:07 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <ro4l32t4eg198aulcbj76lqrn4fef67kfb@4ax.com>
Source record: 61221

On Mon, 10 Apr 2006 10:43:18 -0500, "Steve Nosko"
<suteuve.nosukowicuz@moutouroula.com> wrote:

>
>"Cecil Moore" <mycall@hotmail.com> wrote in message
>news:JqEZf.9270$4L1.2237@newssvr11.news.prodigy.com...
>> Reg Edwards wrote:
>> > But, believe it or not, under certain load conditions the reflection
>> > coefficient Gamma can exceed unity. Indeed, at a sufficiently low
>> > frequency, Gamma can approach 1+Sqrt(2) = 2.414
>>
>> That agrees with Chipman who says it only occurs in lossy lines.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
>Yes. A lossy line nas a non purely real (some X) Zo.

Or it doesn't.

Chipman also says, "It has already been noted that if the losses are
due equally to R and G, Zo is real, no matter how high the losses
are."

780. Re: RF propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 18:38:04 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <85-dnZQN5e6VO6fZnZ2dnUVZ_u2dnZ2d@comcast.com>
Source record: 61222

I think you make the issue too complex.

ERP = P[antenna]*[antenna Gain]

Example ERP = 400 Watts = [100 watts power]*[Gain of 4]; or,

ERP = 50 dBm + 6 dB(antenna) = 56 dBm = 400 watts.

Energy in the side lobe is then 56 dBm +[sidelobe in dB(antenna)].
Where the side lobe could be -20 dB yielding 36 dBm ERP in the side lobe.

MRW wrote:

> Hello,
>
> Does this seem logical?
>
> 1. The signal strength (example in dBm or mW) from a transmitting
> source is measured.
> 2. Assuming most of the attenuation is due to free space loss, the free
> space loss factor is "added" back to the measured signal to get the ERP
> of that specific radiation lobe (it could be main, side, or back lobe).
> 3. The transmitter output is a known value (example 2 Watts).
> 4. Using the calculated ERP for a specific lobe, I can use the
> following to determine the loss / gain due to the antenna & cable:
> loss/gain = 10 log (transmitter output / ERP specific lobe).
> 5. If I rotate the transmitting antenna to 360 degrees, then I should
> be able to have a rough picture of its azimuthal radiation pattern at a
> certain elevation angle.
>
> I'm probably using the terms the wrong way because I think ERP is
> synonymous to the main lobe of the antenna (right?). But I'm just
> treating the ERP as specified only to a certain lobe without knowing if
> its the main, side, or back lobe.
>
> I'm really not sure if this is right. I just want a confirmation
> whether my logic is wrong, and if so, why? Thanks!
>

781. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 19:09:32 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <M3y_f.67431$Jd.58061@newssvr25.news.prodigy.net>
Source record: 61223

Wes Stewart wrote:
> On Mon, 10 Apr 2006 10:43:18 -0500, "Steve Nosko"
> <suteuve.nosukowicuz@moutouroula.com> wrote:
>
>
>>"Cecil Moore" <mycall@hotmail.com> wrote in message
>>news:JqEZf.9270$4L1.2237@newssvr11.news.prodigy.com...
>>
>>>Reg Edwards wrote:
>>>
>>>>But, believe it or not, under certain load conditions the reflection
>>>>coefficient Gamma can exceed unity. Indeed, at a sufficiently low
>>>>frequency, Gamma can approach 1+Sqrt(2) = 2.414
>>>
>>>That agrees with Chipman who says it only occurs in lossy lines.
>>>--
>>>73, Cecil http://www.qsl.net/w5dxp
>>
>>Yes. A lossy line nas a non purely real (some X) Zo.
>
>
> Or it doesn't.
>
> Chipman also says, "It has already been noted that if the losses are
> due equally to R and G, Zo is real, no matter how high the losses
> are."
>
>

All you need is a line where R/L=G/C. This is the famous distortionless
line. It was probably invented long before Chipman. I don't know what
an amateur would want one for.
73,
Tom Donaly, KA6RUH

782. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 19:36:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123lctpbet35gd1@corp.supernews.com>
Source record: 61224

I'm very glad to hear that our postings are being read and considered.

Bill Ogden wrote:
> Speaking as a lurker, I find Roy's and Tom's postings very educational and I
> appreciate the time they take to do it.
>
> I am a little dense, but I think I have learned four key points (at least,
> key for me) from this material:
>
> 1. One can discuss transmission lines and antennas using pulse analysis or
> steady-state analysis. When these two are mixed together the results can be
> a mess.

True. You can actually translate from one to the other, but it requires an FFT or its inverse. Attempts to mix the two nearly always leads to invalid conclusions.

> 2. When discussing "phase difference" we need to specify the two components
> that have the difference. (I.e., phase difference between the current into
> and out of an inductor is a different animal than the phase difference
> between current and voltage at a specific point.)

Yes, although we can use an arbitrary reference as long as it's the same for all components. For example, if one current has a phase angle of 50 degrees relative to some arbitrary reference and the other has a phase angle of 30 degrees relative to that same reference, we know that the phase of the first relative to the second is 20 degrees.

> 3. Superposition ("adding together") of power computations is not valid in
> reactive circuits.

It's never valid. Let me give you an example. Consider two AC or DC voltage sources, each of 10 volts amplitude, with their negative terminals connected together. (If they're AC, have them be of the same frequency and in phase.) Connect a 10 ohm resistor between their positive terminals. Superposition says that we can analyze the circuit with each source individually and the other one turned off (short circuited in the case of a voltage source), and add the results. What we get should be the same answer as a full analysis with both the sources on at the same time. So let's do it. Turn off source #2. The current from source #1 through the resistor is 1 amp. The voltage across the resistor is 10 volts. Now turn source #1 off and #2 on. The current through the resistor is 1 amp going the other way than before, or -1 amp. The voltage across the resistor is 10 volts, but in the opposite direction as before, or -10 volts. Adding the results gives a total of 0 amps through and 0 volts across the resistor. That's the right answer --

it's what we have when both sources are on. But now look at the power dissipated by the resistor. With only source #1 on, it's I^2 * R = 1^2 * 10 = 10 watts. With only source #2 on, it's (-1)^2 * 10 = 10 watts. The sum of the two is 20 watts, which is not the dissipation with both sources on. Superposition does not apply to power, period. If it ever seems to, it's only because of coincidence.

Don't be confused by the "forward" and "reverse" power concept. This is not superposition and the concept must be used with great care to avoid reaching invalid conclusions.

> 4. Displacement current is as real as any other current when dealing with
> antennas and their components. (I cannot remember "displacement current"
> ever being mentioned back in the dark ages when I was in EE school. Perhaps
> the school should remain nameless.)

It's a useful concept, but also has to be used with care because it isn't a real current consisting of movement of electrons. Current in one conductor creates a field which induces current in another conductor, making the current appear to have "flowed" from one conductor to the other. The classic example is of course current flow "through" a capacitor. "Displacement current" is a widely used term; it's in the index of the first four EM texts I grabbed from the bookshelf. Of an example of a parallel RC circuit in Kraus' _Electromagnetics_, he says, "The current through the resistor is a *conduction current*, while the current 'through' the capacitor may be called a *displacement current*. Although the current does not flow through the capacitor, the external effect is as though it did, since as much current flows out of one plate as flows into the opposite one."

Displacement current appears in Ampere's law, one of the four Maxwell equations. In one formulation it has the quantity i + d(phi)e/dt on one side. The i is conduction current, and the derivative quantity is known as the displacement current.

Roy Lewallen, W7EL

783. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 20:04:56 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e1edpg$19le$1@f04n12.cac.psu.edu>
Source record: 61225

Not that I could fan the flames any more anyhow, but just what was the original discussion about anyhow?

As in Cecil says what, and those disagreeing with him say what?

I'm curious how something that doesn't seem that complex can generate so many weeks of acrimony and vitriol! I don't know the answer - but then again, I'm not really sure what the question is. But I do know where to look it up....

- 73 de Mike KB3EIA -

784. Re: RF propagation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 20:19:48 UTC
From: MRW <mr.whatever@gmail.com>
Message-ID: <1144700388.853311.105410@v46g2000cwv.googlegroups.com>
Source record: 61126

Hello Dave, Thanks! What if the antenna gain is not known? Would the steps I mentioned be logical?

785. Grounding Bar Length For Receiving Only Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 20:44:34 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <QLedndZlQrktXqfZnZ2dnUVZ_tCdnZ2d@comcast.com>
Source record: 61127

Hello:

Just started to string up the new listening only antenna I purchased from PAR.

As there is a Balun between the start of the wire antenna, and the coax feeding the receiver, a ground bar is apparently required.

Am using the typical eight foot long,5/8" diameter Cu plated steel that I guess is fairly typical for house AC power grounding.

Querstion: At my age, it's a bit of a problem pounding in the six or seven feet that is commonly mentioned as the "required" length. Certainly, the more the better, I guess, but what wqould be a reasonable length into the ground ?
How about 4 to 5 feet ? Again, it's for receiving only.

Thanks,
Bob

786. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 20:48:38 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <tmgl32d4afb3um9rf14ef1guett7bvqmn5@4ax.com>
Source record: 61128

```
On Mon, 10 Apr 2006 10:25:07 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>On Mon, 10 Apr 2006 10:43:18 -0500, "Steve Nosko"
><suteuve.nosukowicuz@moutouroula.com> wrote:
>
>>
>>"Cecil Moore" <mycall@hotmail.com> wrote in message
>>news:JqEZf.9270$4L1.2237@newssvr11.news.prodigy.com...
>>> Reg Edwards wrote:
>>> > But, believe it or not, under certain load conditions the reflection
>>> > coefficient Gamma can exceed unity. Indeed, at a sufficiently low
>>> > frequency, Gamma can approach 1+Sqrt(2) = 2.414
>>>
>>> That agrees with Chipman who says it only occurs in lossy lines.
>>> --
>>> 73, Cecil http://www.qsl.net/w5dxp
>>
>>Yes. A lossy line nas a non purely real (some X) Zo.
>
>Or it doesn't.
>
>Chipman also says, "It has already been noted that if the losses are
>due equally to R and G, Zo is real, no matter how high the losses
>are."
>

"Distortionless lines" are lines with purely resistive Zo, and they
include lossless lines and that class of lossy line.

Owen
--
```

787. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 20:52:06 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Wzz_f.68628$dW3.41677@newssvr21.news.prodigy.com>
Source record: 61129

Roy Lewallen wrote:
> I'm very glad to hear that our postings are being read and considered.
>
> Bill Ogden wrote:
>
>> Speaking as a lurker, I find Roy's and Tom's postings very educational
>> and I
>> appreciate the time they take to do it.
>>
>> I am a little dense, but I think I have learned four key points (at
>> least,
>> key for me) from this material:
>>
>> 1. One can discuss transmission lines and antennas using pulse
>> analysis or
>> steady-state analysis. When these two are mixed together the results
>> can be
>> a mess.
>
>
> True. You can actually translate from one to the other, but it requires
> an FFT or its inverse. Attempts to mix the two nearly always leads to
> invalid conclusions.
>
>> 2. When discussing "phase difference" we need to specify the two
>> components
>> that have the difference. (I.e., phase difference between the current
>> into
>> and out of an inductor is a different animal than the phase difference
>> between current and voltage at a specific point.)
>
>
> Yes, although we can use an arbitrary reference as long as it's the same
> for all components. For example, if one current has a phase angle of 50
> degrees relative to some arbitrary reference and the other has a phase
> angle of 30 degrees relative to that same reference, we know that the
> phase of the first relative to the second is 20 degrees.
>
>> 3. Superposition ("adding together") of power computations is not
>> valid in
>> reactive circuits.
>
>
> It's never valid. Let me give you an example. Consider two AC or DC

> voltage sources, each of 10 volts amplitude, with their negative
> terminals connected together. (If they're AC, have them be of the same
> frequency and in phase.) Connect a 10 ohm resistor between their
> positive terminals. Superposition says that we can analyze the circuit
> with each source individually and the other one turned off (short
> circuited in the case of a voltage source), and add the results. What we
> get should be the same answer as a full analysis with both the sources
> on at the same time. So let's do it. Turn off source #2. The current
> from source #1 through the resistor is 1 amp. The voltage across the
> resistor is 10 volts. Now turn source #1 off and #2 on. The current
> through the resistor is 1 amp going the other way than before, or -1
> amp. The voltage across the resistor is 10 volts, but in the opposite
> direction as before, or -10 volts. Adding the results gives a total of 0
> amps through and 0 volts across the resistor. That's the right answer --
> it's what we have when both sources are on. But now look at the power
> dissipated by the resistor. With only source #1 on, it's I^2 * R = 1^2 *
> 10 = 10 watts. With only source #2 on, it's (-1)^2 * 10 = 10 watts. The
> sum of the two is 20 watts, which is not the dissipation with both
> sources on. Superposition does not apply to power, period. If it ever
> seems to, it's only because of coincidence.
>
> Don't be confused by the "forward" and "reverse" power concept. This is
> not superposition and the concept must be used with great care to avoid
> reaching invalid conclusions.
>
>> 4. Displacement current is as real as any other current when dealing with
>> antennas and their components. (I cannot remember "displacement current"
>> ever being mentioned back in the dark ages when I was in EE school.
>> Perhaps
>> the school should remain nameless.)
>
>
> It's a useful concept, but also has to be used with care because it
> isn't a real current consisting of movement of electrons. Current in one
> conductor creates a field which induces current in another conductor,
> making the current appear to have "flowed" from one conductor to the
> other. The classic example is of course current flow "through" a
> capacitor. "Displacement current" is a widely used term; it's in the
> index of the first four EM texts I grabbed from the bookshelf. Of an
> example of a parallel RC circuit in Kraus' _Electromagnetics_, he says,
> "The current through the resistor is a *conduction current*, while the
> current 'through' the capacitor may be called a *displacement current*.
> Although the current does not flow through the capacitor, the external
> effect is as though it did, since as much current flows out of one plate
> as flows into the opposite one."
>
> Displacement current appears in Ampere's law, one of the four Maxwell
> equations. In one formulation it has the quantity i + d(phi)e/dt on one
> side. The i is conduction current, and the derivative quantity is known
> as the displacement current.

>
> Roy Lewallen, W7EL

Not everyone is happy with the term "displacement current." Albert Shadowitz, in his book _The Electromagnetic Field_, has a chapter entitled "The So-called Displacement Current." The term isn't in the index to Feynman's _Lectures on Physics_. (At least I couldn't find it.) All that is academic to the fact that AC current seems to be able to make its way through a capacitor with no more opposition than the capacitive reactance. Fortunately, no one on this newsgroup has any objection to the way the term is commonly used.
73,
Tom Donaly, KA6RUH

788. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 21:19:29 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <GZz_f.47$3D7.13@fe09.lga>
Source record: 61130

Check my article that describes the controversy, shows some proof of reality
and then efforts of the "gurus" to deny it and "reason" why it can't be so.
http://www.k3bu.us/loadingcoils.htm
The problem is that back in 1953 in QST article there was erroneous
conclusion/statement made, which propagated through the books, until W9UCW
measured the current across the loading coils and found that there is
significant drop from one end to the other, and the rest is (ongoing)
history

Yuri, K3BU.us

"Michael Coslo" <mjc5@psu.edu> wrote in message
news:e1edpg$19le$1@f04n12.cac.psu.edu...
> Not that I could fan the flames any more anyhow, but just what was the
> original discussion about anyhow?
>
> As in Cecil says what, and those disagreeing with him say what?
>
> I'm curious how something that doesn't seem that complex can generate so
> many weeks of acrimony and vitriol! I don't know the answer - but then
> again, I'm not really sure what the question is. But I do know where to
> look it up....
>
> - 73 de Mike KB3EIA -

789. Re: Given my restrictions, how can I improve my HF antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 21:32:17 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1144704737.350156.89650@i40g2000cwc.googlegroups.com>
Source record: 61131

Thomas,

I'd suggest a remote tuner. You can have twinlead directly to the tuner, and then your entire run of coax sees a nice flat 50 ohms.

A nice automatic tuner would be ideal; you don't have to worry about controls. The price is not exactly right, since you've already got a tuner...

If you've got a well stocked junk box (op amps, power transistors, maybe a few multiturn pots) you could try my approach. I put a small gear motor and sensing potentiometer on each shaft of my MFJ tuner, stripped the spring detent balls out of the inductor switch, added a servo circuit (very simple, it's an op-amp and a couple of transistors) and can use the tuner more or less as if it were in the shack.

See http://www.n3ox.net/projects/servo for more information if you're interested. Your MFJ-949 would lend itself nicely to this approach. It can be done on the cheap, maybe.

A problem arises if you don't have 10-turn (or at least 360 degree) pots... I've been thinking about this in that they're sort of the weak point of my tuner project, as they're something like $15 per new. I work in a physics lab and every few months an obsolete homebrew instrument with a load of them hits the dumpster, so I'm set.

I think remote tuner of some description would be superior from a loss standpoint to any feedline tricks you could do.

Now, the balanced, shielded line on the concrete is a good idea if you're set on running twinlead all the way back to the shack. This is quicker and easier than than building a remote control for your tuner, and cheaper than buying an autotuner, so you might try it first and see if you're happy with the results.

In my apartment, I originally ran about 20 feet of 75 ohm coax between the antenna feedpoint and the tuner. I made some contacts, but saw a DRAMATIC difference when I put the tuner at the antenna feedpoint instead. Fewer RF feedback problems too.

Twinlead is better but twinlead isn't magic. Wide spaced open wire line with an insulator every couple of feet only is super low loss even with high SWR. 300 ohm twinlead, AFAIK, isn't.

73,
Dan
N3OX

www.n3ox.net

790. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 21:46:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <MmA_f.67474$Jd.15059@newssvr25.news.prodigy.net>
Source record: 61132

Richard Harrison wrote:
> A conductor can lose energy
> through dissipation and radiation forever, not just relocate it
> temporarily through storage in a reactance.
>
> The dissipation line at the end of a rhombic antenna does not handle the
> entire output of the transmitter at its other end. Most of the energy is
> already radiated by the time it reaches the dissipation line.

For instance, consider 100 ft. of 50 ohm coax with losses of
3 dB driving a 50 ohm load from a source of 200 watts.

At the source, we have 100 volts at 2 amps. At the load, we
have 70.7 volts at 1.414 amps. The current dropped by exactly
the same amount as the voltage. Hint: The V/I ratio must be
maintained at 50 ohms for flat lines.

Anyone who doesn't understand RF H-field (current) drop in
a lossy transmission line has probably been so seduced by his
lumped circuit model that he thinks the model dictates reality
instead of vice versa.
--
73, Cecil http://www.qsl.net/w5dxp

791. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 21:47:21 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1144705641.418367.163090@i40g2000cwc.googlegroups.com>
Source record: 61133
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

Myron,

I built a set of tuned rings to couple a 4MHz signal from an ultrasound transducer to its processing/signal generation box. I used a small copper ring (only about 6") split at one point with a resonating capacitor across the gap on the ultrasound box side. The coax was connected across this gap also.

On the transducer side, use an identical loop and capacitor but make a series resonant circuit (capacitor in series with one of the feedline leads). Loops were separated by about 1/4 inch.

I know this configuration (parallel resonant on the transciever side, series resonant on the "antenna" side) worked the best.

It worked well in terms of passing the signal through undistorted (looked at amplitude and phase on both sides of the circuit, only got a bit of a phase shift, no amplitude loss)

I don't know about power handling. If you use hefty capacitors, there should be no problem. Bandwidth could be quite low with high-Q circuits, but maybe you could use variable caps.

I think your idea with capacitative coupling with inductors to tune out the reactance would work fine too, but I haven't tried that.

Anyway, the inductive thing works OK. I got the idea from a older (1950's?) ARRL antenna book that touted it as a way to allow rotation a parallel-line fed beam.

You'd certainly need a set of coupling rings for each band of interest, or switched or variable capacitors.

Low E glass would get some eddy currents going. I don't know how conductive it really is though, so ... who knows?

73,
Dan
N3OX
www.n3ox.net

792. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 21:50:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <BqA_f.67475$Jd.51992@newssvr25.news.prodigy.net>
Source record: 61134

Gene Fuller wrote:
> Sorry, you cannot pick and choose which displacement currents to consider.

Why not? All I (and probably Yuri) have ever been considering
are displacement currents to earth ground from the coil. That
is the only current flowing sideways from the coil to ground.
--
73, Cecil http://www.qsl.net/w5dxp

793. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 21:57:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123ll68am31f5fd@corp.supernews.com>
Source record: 61135

Tom Donaly wrote:
>
> Not everyone is happy with the term "displacement current." Albert
> Shadowitz, in his book _The Electromagnetic Field_, has a chapter
> entitled "The So-called Displacement Current." The term isn't in
> the index to Feynman's _Lectures on Physics_. (At least I couldn't
> find it.) All that is academic to the fact that AC current seems to
> be able to make its way through a capacitor with no more opposition
> than the capacitive reactance. Fortunately, no one on this
> newsgroup has any objection to the way the term is commonly used.
> 73,
> Tom Donaly, KA6RUH

That's interesting. It prompted me to look at my other electromagnetics texts. Of the eight I have (Johnk, Jordan & Balmain, Kraus, Ida, Majid, Holt, Ramo et al, and King), all include displacement current in the index and all discuss the concept. Only King objects to its use, although he notes that "The second term [in Ampere's law] was called the 'displacement current' by Maxwell, and this name continues to be used." He goes on to say that "Actually this terminology is unfortunate because the word displacement belongs to the old ether model and because the word current means specifically moving charge." He adds further reasons for his objection in the following paragraphs. With a copyright date of 1945, King's book (_Electromagnetic Engineering_, Vol. I) is the oldest of the texts I have. Perhaps the term has become more acceptable as time has passed. I do see why physicists such as Feynman wouldn't be accepting of the term.

As I mentioned in my earlier posting, it does need to be used with care. We have to always keep in mind that it isn't a real current and therefore doesn't always behave like one. But it is a useful concept as long as we stay aware of its limitations.

Roy Lewallen, W7EL

794. Re: How get RF through a sealed window?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 22:04:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123lljdreeb148a@corp.supernews.com>
Source record: 61136
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew

n3ox.dan@gmail.com wrote:
> . . .
> I think your idea with capacitative coupling with inductors to tune out
> the reactance would work fine too, but I haven't tried that.
> . . .

If you do try that, I recommend keeping the Q as low as possible. Otherwise, voltages will get very high, and you might well end up with greater loss as well as other problems. Minimizing the Q means keeping reactance values low which in turn means making C as large as possible. This leaves you with less reactance to compensate for. In other words, don't make the C small and try to compensate for the large amount of resulting reactance.

Roy Lewallen, W7EL

795. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 22:12:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <1LA_f.67482$Jd.18464@newssvr25.news.prodigy.net>
Source record: 61137

Michael Coslo wrote:
> Not that I could fan the flames any more anyhow, but just what was the
> original discussion about anyhow?

As I realized what the actual misconception really is, the discussion
shifted from coils to standing waves. Seems to me, W8JI and W7EL do
not understand the difference implied by these two different equations
(assuming |Ifor|=|Iref|).

Ifor = I1*cos(kx+wt) and Iref = I1*cos(kx-wt)

Istnd = I1*cos(kx+wt) + I1*cos(kx-wt) = I2*cos(kx)*cos(wt)

Gene Fuller has kindly explained the difference but W8JI and W7EL
seemed to have ignored his explanation. Gene says there is no
phase information in standing wave current phase and I agree.

> As in Cecil says what, and those disagreeing with him say what?

Looking at: http://www.qsl.net/w5dxp/travstnd.GIF

I say the RMS standing wave current's unchanging phase on the right
hand graph, cannot be used to measure phase. W7EL continues to report
those phase measurements as valid indicators of delay through coils
when installed in standing wave environments. I say all the phase
information in the standing wave current is in its magnitude which
is a cosine function as explained in Kraus and Terman. W8JI and W7EL
both dismiss the phase information in the standing wave magnitude
and insteadtrust the standing wave phase to yield valid delay
measurements.

> I'm curious how something that doesn't seem that complex can
> generate so many weeks of acrimony and vitriol! I don't know the answer
> - but then again, I'm not really sure what the question is. But I do
> know where to look it up....

Now you know what the argument is about. Seems to me, W8JI, W7EL,
and others possess misconceptions caused by assuming the unproven
presuppositions of their lumped circuit model. They "prove" their
misconceptions by making measurements known to be invalid. I can't
tell if they are aware of what they are doing or not.

If you know where to look for the answer, please tell us. I have
looked and only found a clear explaination in "Optics" by Hecht.

A side argument is whether standing wave current can drop to
zero at a node in an unterminated transmission line. W8JI continues
to assert that current cannot drop without some imagined third path.

--
73, Cecil http://www.qsl.net/w5dxp

796. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 22:14:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pNA_f.67483$Jd.23892@newssvr25.news.prodigy.net>
Source record: 61138

Owen Duffy wrote:
> "Distortionless lines" are lines with purely resistive Zo, and they
> include lossless lines and that class of lossy line.

Re rho > 1, Chipman is not talking about "distortionless
lines". He specifically states that it occurs when the reactive
portion of Z0 is of opposite sign to the load reactance.
--
73, Cecil http://www.qsl.net/w5dxp

797. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 22:19:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <PRA_f.67486$Jd.28286@newssvr25.news.prodigy.net>
Source record: 61139

Tom Donaly wrote:
> Not everyone is happy with the term "displacement current." Albert
> Shadowitz, in his book _The Electromagnetic Field_, has a chapter
> entitled "The So-called Displacement Current." The term isn't in
> the index to Feynman's _Lectures on Physics_. (At least I couldn't
> find it.) All that is academic to the fact that AC current seems to
> be able to make its way through a capacitor with no more opposition
> than the capacitive reactance. Fortunately, no one on this
> newsgroup has any objection to the way the term is commonly used.

Here's an associated quote from "Electromagnetic Engineering"
by R.W.P King: "an adequate representation of the reactance
of a coil with a nonuniformly distributed current is NOT
POSSIBLE in terms of a coil with a uniform current [a lumped-
element inductance] connected in parallel with a lumped
capacitance."
--
73, Cecil http://www.qsl.net/w5dxp

798. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 22:21:07 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <nTA_f.5573$YT1.2976@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61140

Cecil Moore wrote:

>
> Gene Fuller has kindly explained the difference but W8JI and W7EL
> seemed to have ignored his explanation.

Cecil,

Give it up on this line of baloney. There is not the slightest bit of disagreement on the nature of traveling waves and standing waves.

The only person who was ever appeared to be confused was you. I am happy that you seem to now have at least partial understanding.

73,
Gene
W4SZ

799. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 22:27:49 UTC
From: richardharrison@webtv.net
Message-ID: <6795-443ADBE5-38@storefull-3251.bay.webtv.net>
Source record: 61143

Gene Fuller wrote:
"This is incorrect, and even Terman never said such a thing."

I had written:
"Displacement current which is the a-c current through a capacitor, that has no a-c conduction, is not the "ONLY" thing that allows a conductor to have a current taper." It was Tom, W8JI who shouted: "The ONLY thing etc." I just said displacement current is NOT the only thing. Energy level often declines between ends of a wire or coil due to losses from radiation or dissipation in the wire or coil. Tom is mistaken.

I don`t find the subject of "displacement current" listed in my Terman`s index. I think its definition is accepted. but I gave mine in case someone did not understand what it is.

J.C. Maxwell unlocked the secret of radiation when he speculated displacement current would produce magnetic lines of force the same as conduction current does, thus a traveling E-field produces an H-field and vice versa. It`s been proved correct.

Terman writes on page 1 of his 1955 edition:
"Electrical energy that has escaped into free space exists in the form of electromagnetic waves. These waves, which are commonly called radio waves, travel with the velocity of light and consist of magnetic and electric fields that are at right angles to each other and at right angles to the direction of travel."

Terman writes on page 866 of his 1955 edition in his chapter on "Antennas":
"A wire antenna is a circuit with distributed constants; hence the current distribution on a wire antenna that results from application of a localized voltage follows the principles discussed in Chapt. 4, (titled"Transmission Lines") and depends upon the antenna length; mesured in wavelengths; the terminations at the ends of the antenna wire; and the losses in the system."

Nothing I wrote conflicts with Terman. That`s not the kind of fool I am.

Best regards, Richard Harrison, KB5WZI

800. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 22:32:28 UTC
From: w8ji@akorn.net
Message-ID: <1144708348.601210.298690@e56g2000cwe.googlegroups.com>
Source record: 61141

Yuri Blanarovich wrote:
> Check my article that describes the controversy, shows some proof of reality
> and then efforts of the "gurus" to deny it and "reason" why it can't be so.
> http://www.k3bu.us/loadingcoils.htm

Yuri,

I know you aren't going to like to hear this, but your article incorrectly claims the current difference (you call it current drop) is related to the electrical degrees the coil replaces.
That is not accurate.

ON4UN's book was initially incorrect.

Consider a short vertical antenna. If the current is uniform through toploading, radiation resistance is higher and current lower throughout the radiator.

If it is base loaded, current becomes nearly triangular in distribution. Current into the vertical actually doubles so we have the same number of ampere-feet. It always requires the same number of ampere feet to radiate the same power as EM radiation.

The job of the inductor in either system is simply power factor correction, to bring voltage and current into phase. We have a large voltage drop across the coil, but current does not change. phase shift and delay of current through the inductor will also be very small, zero in a perfect coil.

That is in an ideal antenna with very small stray capacitance to the outside world compared to the antenna area above the coil.

If we have a physically large coil, the coil MIGHT have significant capacitance compared to the antenna area above the coil. In this case there would be a difference in current between the bottom and top terminal of the coil, and there would be phase difference in the current entering and leaving the coil, but it is a result of current being shunted off through displacement currents.

The exact amount would depend on the physical size of the coil and the capacitance compared to the antenna above the coil.

There is not any magic to any of this, and we don't need to have standing waves. It is incorrect to consider the coil behavior and antenna currents by making the coil "act like" it has the missing electrical dgrees or replaces a section current curve in the antenna.

I can have one antenna and use a good coil design that has essentially no current difference at each terminal, and replace it with a very large (or poorly designed) diameter coil that has large differences in current at each end. Probably the ultimate in poor coil design for base loading is a linear loading system or stub, while the best would be a compact coil with nearly equal diameter to length.

The very fact we can change distribution all over the place with only a change in loading inductor design proves your theory incorrect.

Please try to not extract certain sentences from long explainations to distort the overall picture of what really happens, and of what I am describing.

The fact is, we cannot model or predict the behavior of a loading system without knowing the displacement currents. Neither wave theory nor "missing antenna length" theory will paint the correct picture of what is going on, and neither will give an accurate answer to a wide variety of real world systems.

By the way, this did not start with Belrose and it is not a QST or Handbook problem. The Antenna Engineering Handbook by Jasik and dozens of other college or engineering textbooks all deal with the problems the same way. If you are looking to libel anyone, you need to go all the way back to James C. Maxwell in the 19th century. It was before the Civil War that the "big error" you and Barry found started.

I guess it all comes down to if Barry and Yuri are right, or if nearly every professor, scientist, and engineer from Maxwell to today are correct. I can measure ANY antenna and prove things behave as I described. Can you do the same?

73 Tom

801. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 22:32:53 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <p2B_f.5587$YT1.4297@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61142

Mike,

The question changes continuously. As soon as one myth is exploded Cecil slides right into another.

The original topic dealt with currents in a loading coil for a mobile antenna. However, the technical part of that discussion ended a long time ago. Only the sniping remains.

73,
Gene
W4SZ

Michael Coslo wrote:
> Not that I could fan the flames any more anyhow, but just what was the
> original discussion about anyhow?
>
> As in Cecil says what, and those disagreeing with him say what?
>
> I'm curious how something that doesn't seem that complex can
> generate so many weeks of acrimony and vitriol! I don't know the answer
> - but then again, I'm not really sure what the question is. But I do
> know where to look it up....
>
> - 73 de Mike KB3EIA -

802. Re: vert distortion?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 22:40:22 UTC
From: ml <m@di.net>
Message-ID: <m-48D812.18401710042006@news.verizon.net>
Source record: 61144

In article <4s4i329os8b7cjt5ndgtlrk17tl56ouo3s@4ax.com>,
Wes Stewart <n7ws*@*yahoo.com> wrote:

> On Sun, 09 Apr 2006 13:18:18 GMT, ml <m@di.net> wrote:
>
> >hi
> >
> >
> >i've noticed a few installations of say a 2m beam vertically mounted to
> >a regular metal tv style mast
> >
> >from looking at it, you have the mast(metal) going between 2 elements
> >and longer than the elements
> >
> >so i was wondering as this is a common mounting style and method
> >
> >how bad is the beam pattern for rx and tx ? effected by the metal mast?
> >
> >
> >
> >it also got me thinking i've noteced some beams as in the above use a
> >fiberglass boom while others use metal
> >
> >how does this effect patterns and efficiency
> >
> >both from a practical point of view and technically speaking
>
> The metal mast affects the performance to some degree, but I don't
> know of a rule of thumb for predicting it. So the answer is, it
> depends.
>
> A fiberglass or other non-metallic mast will help, it you also use a
> non-metallic coax line.
>
>
>
> >
> >
> >???
> >
> >
> >thanks

thanks for the interesting reply's , i was originally wondering how it
would negatively effect it, which is my concern and knowing in what ways,

but the j pole thing got me sorta thinkn' once i know the downside
specifics' perhaps i might be able to turn it into a good thing??

cool

803. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 22:44:04 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <UcB_f.67494$Jd.66179@newssvr25.news.prodigy.net>
Source record: 61145

Gene Fuller wrote:

> Cecil Moore wrote:
>> Gene Fuller has kindly explained the difference but W8JI and W7EL
>> seemed to have ignored his explanation.
>
> Give it up on this line of baloney. There is not the slightest bit of
> disagreement on the nature of traveling waves and standing waves.

On the contrary, you must not have read W7EL's recent posting where
he again presented his coil delay "measurements" using the standing
current phase as a measurement reference. Remember, the current you
said contains no phase information? Maybe you should share your
knowledge with W7EL?

> The only person who was ever appeared to be confused was you. I am
> happy Regarding the cos(kz)*cos(wt) term in a standing wave:

When you made your posting, you reinforced my argument better
than any other reference. I am very happy with your posting
and cannot thank you enough. I will continue to use it as
one of my best references for the invalidity of W7EL's coil
delay measurements.

Gene Fuller, W4SZ wrote:
> In a standing wave antenna problem, such as the one you describe,
> there is no remaining phase information. Any specific phase
> characteristics of the traveling waves died out when the startup
> transients died out.
>
> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be
> seen again.
>
> The only "phase" remaining is the cos (kz) term, which is really
> an amplitude description, not a phase.
--
73, Cecil http://www.qsl.net/w5dxp

804. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 22:54:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <4nB_f.67497$Jd.30975@newssvr25.news.prodigy.net>
Source record: 61146

w8ji@akorn.net wrote:
> I know you aren't going to like to hear this, but your article
> incorrectly claims the current difference (you call it current drop) is
> related to the electrical degrees the coil replaces.
> That is not accurate.

The current drop in a wire with standing waves is indeed related
to the number of degrees occupied by the wire. Why shouldn't the
same thing be true for a coil?

> Consider a short vertical antenna.

Consider a 1/4WL vertical antenna. The current drop is a function
of the cosine of the number of degrees one moves away from the
source. The same thing is true for a helical antenna. The same
thing is true for a half helical - half wire antenna.

> I guess it all comes down to if Barry and Yuri are right, or if nearly
> every professor, scientist, and engineer from Maxwell to today are
> correct. I can measure ANY antenna and prove things behave as I
> described. Can you do the same?

1. You assume the unproven presuppositions of your lumped circuit
model with a religious-like fervor.

2. You make invalid measurements using standing wave current whose
phase contains no phase information. All the phase information is
known to be in the magnitude measurement, but you dismiss any of
the proven arc-cosine calculations as bogus.

With misconceptions and invalid measurements, it is no wonder that
you can prove anything in the world even when it violates the laws
of physics.
--
73, Cecil http://www.qsl.net/w5dxp

805. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 23:01:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0tB_f.67500$Jd.34705@newssvr25.news.prodigy.net>
Source record: 61147

Gene Fuller wrote:
> The question changes continuously. As soon as one myth is exploded Cecil
> slides right into another.

Would you rather discuss something for which no disagreement
exists, or discuss the real point of disagreement?

It is apparent to me that the problem is not with coils. The
same point of disagreement exists whether a coil is present
or not. That point of disagreement involves standing waves,
not coils. Take away the coil and the misconception still
exists when discussing only a straight wire.

W8JI is still maintaining that the current cannot drop to
zero at a standing wave current node when the forward
current and reflected current are of the same magnitude.

That is obviously the point of misconception and it has
been clear ever since he refused to discuss zero amps
at the bottom of the coil and 2 amps at the top of the
coil. Replace the coil with a straight wire and W8JI
still has that same misconception. So you see the coil
is not the source of the disagreement.
--
73, Cecil http://www.qsl.net/w5dxp

806. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-10 23:37:28 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Y_B_f.5673$YT1.5499@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61148

Hi Richard,

My point is in complete agreement with Tom, W8JI. The only thing that allows "current taper" is displacement current.

Conservation of charge is one of the most fundamental laws in nature. The historical basis for referring to storage of charge in a capacitor as "displacement current" is considered incorrect today. However, the underlying physical science remains intact. "Current taper" means that charge stops moving as current and becomes stored in a capacitor. (Everything has capacitance; there is no requirement for a little lump with two leads on it.) It is this charge storage phenomenon that is known as displacement current.

Energy levels and losses have nothing to do with this question.

73,
Gene
W4SZ

Richard Harrison wrote:
> Gene Fuller wrote:
> "This is incorrect, and even Terman never said such a thing."
>
> I had written:
> "Displacement current which is the a-c current through a capacitor, that
> has no a-c conduction, is not the "ONLY" thing that allows a conductor
> to have a current taper." It was Tom, W8JI who shouted: "The ONLY thing
> etc." I just said displacement current is NOT the only thing. Energy
> level often declines between ends of a wire or coil due to losses from
> radiation or dissipation in the wire or coil. Tom is mistaken.

807. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 00:03:13 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <5nC_f.5711$YT1.592@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61149

Cecil,

Your own calculations would appear to support Tom's assertion.

I believe after a long series of EZNEC models and RRAA messages you came to the conclusion that the 75 meter bugcatcher coil at 4 MHz had a traveling wave phase shift of around 10 degrees. I won't get into the discussion about whether this has any bearing on a standing wave antenna; let's just assume it does.

This same coil resonated an antenna with a whip length of 10 feet or so. A quarter wavelength at 4 MHz is around 60 feet. The phase shift that could be attributed to the whip is therefore around 15 degrees. The phase shift of the missing 50 feet of wire for a plain quarter wave antenna would be around 75 degrees.

Is 10 degrees the same amount as 75 degrees? Is this problem stated incorrectly? Why is Tom wrong?

73,
W4SZ

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> I know you aren't going to like to hear this, but your article
>> incorrectly claims the current difference (you call it current drop) is
>> related to the electrical degrees the coil replaces.
>> That is not accurate.
>
>
> The current drop in a wire with standing waves is indeed related
> to the number of degrees occupied by the wire. Why shouldn't the
> same thing be true for a coil?
>

808. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 00:13:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cgsl32le4ha11u9hd23fiegu16lh43i0bn@4ax.com>
Source record: 61151

On Mon, 10 Apr 2006 20:52:06 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Not everyone is happy with the term "displacement current." Albert
>Shadowitz, in his book _The Electromagnetic Field_, has a chapter
>entitled "The So-called Displacement Current." The term isn't in
>the index to Feynman's _Lectures on Physics_. (At least I couldn't
>find it.) All that is academic to the fact that AC current seems to
>be able to make its way through a capacitor with no more opposition
>than the capacitive reactance. Fortunately, no one on this
>newsgroup has any objection to the way the term is commonly used.

Hi Tom, and others,

The "labeled" currents span a much too small arena. There are also
the induced currents (no, not necessarily from flux linkage) and
convection currents (which IS the primary correlative to the induced
current).

The convection currents are possibly the only current that attain the
speed of light velocity. The others are so astronomically slow, that
it is arguable to say that any current (electron/hole transport) in a
wire is any more significant than that that is supposed to never cross
through the dielectric of a capacitor.

In other words, the displacement current is labeled fictitious because
no electron ever moves from one plate to the other. Now, if we simply
substitute solid gold for that dielectric (still maintaining the same
plates); then no electron ever makes it from one plate to the other -
and yet current flows in the entire AC circuit by proportion to the
impedance presented to it by either the dielectric capacitor, or the
gold capacitor.

This, of course, illustrates the corruption of usage in the term
"current."

73's
Richard Clark, KB7QHC

809. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 00:14:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <%xC_f.58017$F_3.48039@newssvr29.news.prodigy.net>
Source record: 61150

Gene Fuller wrote:
> My point is in complete agreement with Tom, W8JI. The only thing that
> allows "current taper" is displacement current.

True, but it doesn't happen as W8JI describes.

The distributed capacitance in a coil causes a transmission
line effect. The displacement currents cause delays (phase
shifts) in traveling wave currents. The traveling wave
currents can be considered to have constant magnitude, i.e.
negligible current taper in the traveling wave in spite
of the known displacement currents.

The displacement current effect on traveling waves is in
the phase, not the magnitude. Such is illustrated as an
EZNEC result in the left hand graphic at:

http://www.qsl.net/w5dxp/travstnd.GIF

Please note that in spite of the distributed capacitance,
the magnitude is fixed and flat, i.e. no taper. The displacement
currents cause phase shift delays in traveling waves but has
virtually no effect on the magnitude of the traveling wave.

The distributed capacitance is the same in the transmission
line whether a single traveling wave is present or standing
waves present. So displacement currents don't necessarily
result in current taper. How do you explain that one?

Now take a look at the right hand graph involving standing
wave current. The *phase is fixed and unchanging*. The magnitude
of the standing wave current is *tapered as a cosine function
of distance from the source*. Displacement current indeed does
cause this effect but it is a transmission line effect of
superposition of forward and reflected waves, not the effect
of some imagined sideways third path for current to earth ground.
--
73, Cecil http://www.qsl.net/w5dxp

810. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 00:23:43 UTC
From: w8ji@akorn.net
Message-ID: <1144715023.730193.164820@i39g2000cwa.googlegroups.com>
Source record: 61152

Richard Harrison wrote:
> "Displacement current which is the a-c current through a capacitor, that
> has no a-c conduction, is not the "ONLY" thing that allows a conductor
> to have a current taper." It was Tom, W8JI who shouted: "The ONLY thing
> etc." I just said displacement current is NOT the only thing. Energy
> level often declines between ends of a wire or coil due to losses from
> radiation or dissipation in the wire or coil. Tom is mistaken.

Sorry Richard, that is not correct.

Radiation does not cause current taper. Dissipation does not either.

Consider dissipation first. If dissipation caused current reduction,
the return to a battery from a light bulb would have less current than
the outgoing terminal. There has to be a third path to allow current to
divide, but the totals of the division equal the initial amount. That's
a rule we learn way back in basic electricity. Current or charges are
not converted into heat.

Radiation is no different. Radiation is not conversion of charges into
a force that allows action at a distance. Radiation is a force on other
charges at a distance caused by charge acceleration.

The only thing that allows an antenna to have current taper or current
change along the length of a wire suspended in space is displacement
current. It is not standing waves, it is not radiation, it is not
resistance.

Of course we could add a shunt resistance or inductance to provide a
path, but when there is no leakage resistance or shunting inductance
the path can only be what is called displacement current.

A series impedance or resistance by itself, even if the cause is
radiation or loss resistance, cannot cause current reduction with
distance along a conductor.

A model that only considers reflected and forward "waves" is fine, if
applied correctly. Cecil doesn't even seem to understand current, and
appears to think there is a forward current and reflected current
moving in opposite directions at the same instant of time in the very
same location in a conductor.

Wave theory is just fine, but it has to be understood it is just a
modelling shortcut and the results cannot conflit with basic laws of
physics. The current we measure with a clamp on meter IS the current
that causes radiation, standing waves or not. It is also the current
that causes all of the heating. We cannot really have two opposite

directions of charge movement at the same time in a single conductor.

73 Tom

811. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 00:24:35 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <7HC_f.5748$YT1.539@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61153

Cecil,

All I can say is why don't you write this magic tale into a technical
article and submit it to your favorite IEEE journal or AIP journal.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> My point is in complete agreement with Tom, W8JI. The only thing that
>> allows "current taper" is displacement current.
>
>
> True, but it doesn't happen as W8JI describes.
>
> The distributed capacitance in a coil causes a transmission
> line effect. The displacement currents cause delays (phase
> shifts) in traveling wave currents. The traveling wave
> currents can be considered to have constant magnitude, i.e.
> *negligible current taper* in the traveling wave in spite
> of the known displacement currents.
>
> The displacement current effect on traveling waves is in
> the phase, not the magnitude. Such is illustrated as an
> EZNEC result in the left hand graphic at:
>
> http://www.qsl.net/w5dxp/travstnd.GIF
>
> Please note that in spite of the distributed capacitance,
> the magnitude is fixed and flat, i.e. no taper. The displacement
> currents cause phase shift delays in traveling waves but has
> virtually no effect on the magnitude of the traveling wave.
>
> The distributed capacitance is the same in the transmission
> line whether a single traveling wave is present or standing
> waves present. So displacement currents don't necessarily
> result in current taper. How do you explain that one?
>
> Now take a look at the right hand graph involving standing
> wave current. The *phase is fixed and unchanging*. The magnitude
> of the standing wave current is *tapered as a cosine function
> of distance from the source*. Displacement current indeed does

> cause this effect but it is a transmission line effect of
> superposition of forward and reflected waves, not the effect
> of some imagined sideways third path for current to earth ground.

812. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 00:44:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <mZC_f.58024$F_3.57672@newssvr29.news.prodigy.net>
Source record: 61154

Gene Fuller wrote:
> I believe after a long series of EZNEC models and RRAA messages you came
> to the conclusion that the 75 meter bugcatcher coil at 4 MHz had a
> traveling wave phase shift of around 10 degrees.

Note that is not a measurement - that is what EZNEC reports but
let's assume, for the sake of discussion, that it is correct. W8JI
measured a 3nS, 4 degree phase shift in a coil twice as long with
43% more inductance. A bigger coil would obviously have a bigger
phase shift because of less current field linkage between the end
coils. So even if the phase shift through the coil is 10 degrees
as reported by EZNEC, W8JI's phase shift measurements were probably
off by *MORE THAN 200%* and that's why Tom is wrong.

> This same coil resonated an antenna with a whip length of 10 feet or so.
> A quarter wavelength at 4 MHz is around 60 feet. The phase shift that
> could be attributed to the whip is therefore around 15 degrees. The
> phase shift of the missing 50 feet of wire for a plain quarter wave
> antenna would be around 75 degrees.

You are confused. Some time ago, I explained why a mobile antenna
may not be 90 degrees long at all. Did you understand that posting?
All we can say is that (Vfor+Vref)/(Ifor+Iref) is purely resistive.
We don't know how many degrees the reflected wave has traveled in
its round trip because there are too many variables.

So please stop the diversions. I have always said that the delay
through a coil *IS WHAT IT IS* but it is NOT zero and it is not the
3 nS measured by W8JI for that 100 uH coil. It is also not the near-zero
phase shift measured by W7EL using standing wave current phase as the
reference. You, yourself, implied that is an invalid measurement when
you told us there is no phase information in standing wave phase.

Seems to me you are making my argument for me and that your real
argument is with the other side. Have you told W7EL that standing
wave current phase cannot be used to measure the delay through a
coil?
--
73, Cecil http://www.qsl.net/w5dxp

813. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 01:00:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <%cD_f.58030$F_3.1988@newssvr29.news.prodigy.net>
Source record: 61155

w8ji@akorn.net wrote:
> Radiation does not cause current taper. Dissipation does not either.

Radiation and dissipation are considered to be losses in a
transmission line covered by the attenuation factor. All that
is needed to prove your above assertions to be false is to
quote a transmission line equation. It can even be the more
simple flat form where the SWR is 1:1. Here it is in ASCII:

I = Im*e^(ax)*e^j(wt-bx)

Note this is the equation for *CURRENT* where 'a' is the attenuation
factor. The attenuation factor includes radiation and dissipation.

Your statements indicate a high level of ignorance. Assuming a flat
transmission line with an SWR of 1:1, if the loss in the transmission
line is 3 dB, we can put 200 watts into 50 ohm coax at the source end
and get 100 watts out at the 50 ohm load end. The current out of the
source is SQRT(200w/50) = 2 amps. The current through the 50 ohm load
is SQRT(200w/50) = 1.414 amps. The current has dropped from the source
to the load by exactly the same percentage that the voltage has dropped.

What you seem to be missing is that the H-field is attenuated by the
same amount as the E-field while the ratio of E-field to H-field
remains constant and equal to Z0. Current is proportional to the
H-field and voltage is proportional to the E-field.
--
73, Cecil http://www.qsl.net/w5dxp

814. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 01:04:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <LgD_f.58032$F_3.54631@newssvr29.news.prodigy.net>
Source record: 61156

Gene Fuller wrote:
> All I can say is why don't you write this magic tale into a technical
> article and submit it to your favorite IEEE journal or AIP journal.

I'm sure there are hundreds of such papers already, Gene.
Much of this stuff is in the Corum paper. But you rejected
that Corum IEEE paper that I presented as evidence so why
would me writing one make any difference to your fixed
preconceptions?
--
73, Cecil http://www.qsl.net/w5dxp

815. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 01:08:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <okD_f.58034$F_3.51335@newssvr29.news.prodigy.net>
Source record: 61157

Cecil Moore wrote:

> w8ji@akorn.net wrote:
>
>> Radiation does not cause current taper. Dissipation does not either.
>
>
> Radiation and dissipation are considered to be losses in a
> transmission line covered by the attenuation factor. All that
> is needed to prove your above assertions to be false is to
> quote a transmission line equation. It can even be the more
> simple flat form where the SWR is 1:1. Here it is in ASCII:
>
> I = Im*e^(ax)*e^j(wt-bx)
>
> Note this is the equation for *CURRENT* where 'a' is the attenuation
> factor. The attenuation factor includes radiation and dissipation.
>
> Your statements indicate a high level of ignorance. Assuming a flat
> transmission line with an SWR of 1:1, if the loss in the transmission
> line is 3 dB, we can put 200 watts into 50 ohm coax at the source end
> and get 100 watts out at the 50 ohm load end. The current out of the
> source is SQRT(200w/50) = 2 amps. The current through the 50 ohm load
> is SQRT(200w/50) = 1.414 amps. The current has dropped from the source
^^^
Obviously, should be 100w. Sorry for the typo.

> to the load by exactly the same percentage that the voltage has dropped.
>
> What you seem to be missing is that the H-field is attenuated by the
> same amount as the E-field while the ratio of E-field to H-field
> remains constant and equal to Z0. Current is proportional to the
> H-field and voltage is proportional to the E-field.
--
73, Cecil http://www.qsl.net/w5dxp

816. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 02:20:34 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <SnE_f.6007$YT1.2778@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61158

Cecil,

As usual, you evaded the question, but this time you did not even do a very slick job of evasion.

The question is what happens to the 75 degrees that was formerly represented by the now-replaced wire. The coil may offer about 10 degrees.

I believe that Tom is stating that 75 is not equal to 10. Sounds like a reasonable statement to me.

I don't know why you are so worried about the precise details of phase measurements. Even your standard of precision, +/- 59%, won't make 10 equal to 75.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
> > I believe after a long series of EZNEC models and RRAA messages you came
> > to the conclusion that the 75 meter bugcatcher coil at 4 MHz had a
> > traveling wave phase shift of around 10 degrees.
>
> Note that is not a measurement - that is what EZNEC reports but
> let's assume, for the sake of discussion, that it is correct. W8JI
> measured a 3nS, 4 degree phase shift in a coil twice as long with
> 43% more inductance. A bigger coil would obviously have a bigger
> phase shift because of less current field linkage between the end
> coils. So even if the phase shift through the coil is 10 degrees
> as reported by EZNEC, W8JI's phase shift measurements were probably
> off by *MORE THAN 200%* and that's why Tom is wrong.
>
> > This same coil resonated an antenna with a whip length of 10 feet or so.
> > A quarter wavelength at 4 MHz is around 60 feet. The phase shift that
> > could be attributed to the whip is therefore around 15 degrees. The
> > phase shift of the missing 50 feet of wire for a plain quarter wave
> > antenna would be around 75 degrees.
>
> You are confused. Some time ago, I explained why a mobile antenna
> may not be 90 degrees long at all. Did you understand that posting?
> All we can say is that (Vfor+Vref)/(Ifor+Iref) is purely resistive.
> We don't know how many degrees the reflected wave has traveled in
> its round trip because there are too many variables.
>

> So please stop the diversions. I have always said that the delay
> through a coil *IS WHAT IT IS* but it is NOT zero and it is not the
> 3 nS measured by W8JI for that 100 uH coil. It is also not the near-zero
> phase shift measured by W7EL using standing wave current phase as the
> reference. You, yourself, implied that is an invalid measurement when
> you told us there is no phase information in standing wave phase.
>
> Seems to me you are making my argument for me and that your real
> argument is with the other side. Have you told W7EL that standing
> wave current phase cannot be used to measure the delay through a
> coil?

817. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 02:27:47 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <DuE_f.6039$YT1.195@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61159

Cecil,

Wow! I think you may have set a new world record for the most irrelevant concepts per word dragged into an RRAA posting.

We got transmission lines, attenuation factors, H-fields, E-fields, and even SWR. Not to mention watts, dB, and Zo.

It is truly unfortunate that none of this is connected to the subject at hand, displacement current, but it makes for a colorful message.

73,
Gene
W4SZ

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> Radiation does not cause current taper. Dissipation does not either.
>
>
> Radiation and dissipation are considered to be losses in a
> transmission line covered by the attenuation factor. All that
> is needed to prove your above assertions to be false is to
> quote a transmission line equation. It can even be the more
> simple flat form where the SWR is 1:1. Here it is in ASCII:
>
> I = Im*e^(ax)*e^j(wt-bx)
>
> Note this is the equation for *CURRENT* where 'a' is the attenuation
> factor. The attenuation factor includes radiation and dissipation.
>
> Your statements indicate a high level of ignorance. Assuming a flat
> transmission line with an SWR of 1:1, if the loss in the transmission
> line is 3 dB, we can put 200 watts into 50 ohm coax at the source end
> and get 100 watts out at the 50 ohm load end. The current out of the
> source is SQRT(200w/50) = 2 amps. The current through the 50 ohm load
> is SQRT(200w/50) = 1.414 amps. The current has dropped from the source
> to the load by exactly the same percentage that the voltage has dropped.
>
> What you seem to be missing is that the H-field is attenuated by the
> same amount as the E-field while the ratio of E-field to H-field
> remains constant and equal to Z0. Current is proportional to the
> H-field and voltage is proportional to the E-field.

818. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 02:38:22 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <yEE_f.58054$F_3.43550@newssvr29.news.prodigy.net>
Source record: 61160

Cecil Moore wrote:
> Michael Coslo wrote:
>
>> Not that I could fan the flames any more anyhow, but just what was the
>> original discussion about anyhow?
>
>
> As I realized what the actual misconception really is, the discussion
> shifted from coils to standing waves. Seems to me, W8JI and W7EL do
> not understand the difference implied by these two different equations
> (assuming |Ifor|=|Iref|).
>
> Ifor = I1*cos(kx+wt) and Iref = I1*cos(kx-wt)
>
> Istnd = I1*cos(kx+wt) + I1*cos(kx-wt) = I2*cos(kx)*cos(wt)
>
> Gene Fuller has kindly explained the difference but W8JI and W7EL
> seemed to have ignored his explanation. Gene says there is no
> phase information in standing wave current phase and I agree.
>
>>
>

I've said it before and I'll say it again, there is no phase variable
in I1*cos(kx+wt) and there is no phase variable in I1*cos(kx-wt) so
there can't possibly be any phase information in 2*I1*cos(kx)*cos(wt).
If you're going to measure a phase difference between two places on
a transmission line and you want to write an equation describing what
you're doing, you have to have the phase variable somewhere in your
equation so you can solve for it. Also, it would help, Cecil, if you
would be a little more careful when you copy these equations from your
favorite Bible. They keep changing form as time passes.
73,
Tom Donaly, KA6RUH

819. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 02:48:14 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <ONE_f.924$Lm5.724@newssvr12.news.prodigy.com>
Source record: 61161

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> Not everyone is happy with the term "displacement current." Albert
>> Shadowitz, in his book _The Electromagnetic Field_, has a chapter
>> entitled "The So-called Displacement Current." The term isn't in
>> the index to Feynman's _Lectures on Physics_. (At least I couldn't
>> find it.) All that is academic to the fact that AC current seems to
>> be able to make its way through a capacitor with no more opposition
>> than the capacitive reactance. Fortunately, no one on this
>> newsgroup has any objection to the way the term is commonly used.
>
>
> Here's an associated quote from "Electromagnetic Engineering"
> by R.W.P King: "an adequate representation of the reactance
> of a coil with a nonuniformly distributed current is NOT
> POSSIBLE in terms of a coil with a uniform current [a lumped-
> element inductance] connected in parallel with a lumped
> capacitance."

I don't know what that has to do with displacement current, Cecil,
but if you're worried about it you can just use your coil at a frequency
where you get a more satisfactory current distribution. I made a coil
like you talk about (mine was 5.25 inches long,
27 turns, 6 inches in diameter) and it behaved pretty much like
a coil in parallel with a capacitor up to a few megahertz, at least.
Beyond that, it was a different story.
73,
Tom Donaly, KA6RUH

820. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 03:05:48 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <l2F_f.6$V85.2@fe10.lga>
Source record: 61162

<w8ji@akorn.net> wrote

> There is not any magic to any of this, and we don't need to have
> standing waves.

rest of mumbo-jumbo nonsense deleted

Tom,
So, you don't need to have standing waves on the resonant radiator?
If you see antenna and loading coil in it as coil in a closed circuit and not as resonator with standing wave, then you are off the rocker.

You don't know what the impedance is.
You don't want to repeat tests that W9UCW did.
You don't want to explain W5DXP models and answer his questions.
You don't want answer my question, but resort every time into "lessons" about your misconceptions.
I tried to go step by step, starting with resonant quarter wave and current distribution along its length, but you get off on your lecture tangent to muddy the waters and how you can make a coil that will have difference in current, while you stated at the begining that the current is ALWAYS the same. Now the stray capacitance can suck the current out of the antenna?
Read Kraus what he says about antenna (resonator), standing wave and energy in it. You can measure it, just as W9UCW did.
Keep it up!

73 Yuri

I just pointed out that Belrose apparently started this misconception in his 1953 QST article, got perpetuated in ham literature until it hit us in the face and we pointed out that it is wrong and now has impact on modeling and antenna design. Garbage in - garbage out. We are trying to correct it and show what the reality is.

821. Re: Grounding Bar Length For Receiving Only Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 03:06:05 UTC
From: TimPerry <timperry@noaspamadelphia.net>
Message-ID: <wM2dnQ4efL-_gKbZnZ2dnUVZ_vSdnZ2d@adelphia.com>
Source record: 61163

"Robert11" <rgsros@notme.com> wrote in message
news:QLedndZlQrktXqfZnZ2dnUVZ_tCdnZ2d@comcast.com...
> Hello:
>
> Just started to string up the new listening only antenna I purchased from
> PAR.
>
> As there is a Balun between the start of the wire antenna, and the coax
> feeding the receiver, a ground bar is apparently required.
>
> Am using the typical eight foot long,5/8" diameter Cu plated steel that I
> guess is fairly typical for house AC power grounding.
>
> Querstion: At my age, it's a bit of a problem pounding in the six or
seven
> feet that is commonly mentioned as the "required" length. Certainly, the
> more the better, I guess, but what wqould be a reasonable length into the
> ground ?
> How about 4 to 5 feet ? Again, it's for receiving only.
>
> Thanks,
> Bob
>

you can make a ground rod pounder by coupling several short section of pipe
together. the ground rod is inserted into the pipe which keeps the rod from
bending. as the rod is driven into the ground sections are removed one at a
time until the rod is at sufficient depth.

it's getting it out thats the trickey part :)

822. Re: Grounding Bar Length For Receiving Only Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 03:19:49 UTC
From: "David G. Nagel" <nagel.david@sbcglobal.net>
Message-ID: <pfF_f.64702$H71.61324@newssvr13.news.prodigy.com>
Source record: 61164

TimPerry wrote:
> "Robert11" <rgsros@notme.com> wrote in message
> news:QLedndZlQrktXqfZnZ2dnUVZ_tCdnZ2d@comcast.com...
>
>>Hello:
>>
>>Just started to string up the new listening only antenna I purchased from
>>PAR.
>>
>>As there is a Balun between the start of the wire antenna, and the coax
>>feeding the receiver, a ground bar is apparently required.
>>
>>Am using the typical eight foot long,5/8" diameter Cu plated steel that I
>>guess is fairly typical for house AC power grounding.
>>
>>Querstion: At my age, it's a bit of a problem pounding in the six or
>
> seven
>
>>feet that is commonly mentioned as the "required" length. Certainly, the
>>more the better, I guess, but what wqould be a reasonable length into the
>>ground ?
>>How about 4 to 5 feet ? Again, it's for receiving only.
>>
>>Thanks,
>>Bob
>>
>
>
> you can make a ground rod pounder by coupling several short section of pipe
> together. the ground rod is inserted into the pipe which keeps the rod from
> bending. as the rod is driven into the ground sections are removed one at a
> time until the rod is at sufficient depth.
>
> it's getting it out thats the trickey part :)
>
>
Place a clamp on the exposed end of the rod and connect it to an
automobile bumper jack, the old fashioned kind that actually fit the
bumper. Jack the jack and it will pull the rod out of the ground. As it
appears you can reposition the clamp and lower the jack to another lift
point. Wa la one out of the ground ground rod.

Dave WD9BDZ

823. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 03:36:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <VuF_f.67537$Jd.23552@newssvr25.news.prodigy.net>
Source record: 61165

Gene Fuller wrote:
> It is truly unfortunate that none of this is connected to the subject at
> hand, displacement current, but it makes for a colorful message.

Please don't tell us that you don't understand how the attenuation
factor in a transmission line current equation causes the current
to drop along the line equaling the percentage drop in the voltage.

One can write a similar equation for a standing wave dipole.
--
73, Cecil http://www.qsl.net/w5dxp

824. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 04:00:40 UTC
From: richardharrison@webtv.net
Message-ID: <17929-443B29E8-742@storefull-3255.bay.webtv.net>
Source record: 61170

Tom, W8JI wrote:
"Wave theory is just fine, but it has to be understood it is just a modeling shortcut and the results cannot conflict with the basic laws of physics,"

The Quantum theory may replace the wave theory some day, but the wave theory has always satisfied my needs.

Terman writes on page 84 of his 1955 edition:
"The quantity aq. rt. of ZY is called the propagation constant of the line. It is a complex quantity, having a real part alpha called the attenuation constant and an imaginary part beta termed the phase constant."

On the next page 85, Terrman has diagrams showing behavior of the voltages of the incident and reflected waves on a transmission line. It is the same as that on antennas. That`s why the antenna section of Terman`s book tells the reader to refer to the transmission line chapter for the behavior of antennas. It`s identical.

I`ve erected and operated countless rhombics in the international broadcasting service. I`ve underloaded them and overloaded them and in the process melted plenty of dissipation lines. I can attest that Terman has it right. Sometimes you have to do what you`ve got to do even when you know better.

When the dissipation line went away we would cover outh America as well as Central Europe and get lots of fan mail for our troubles. We shouldn`t have been getting fan mail from South America but lots of Central Europeans were living there as refugees from the Axis and from the Allies. When we covered South America, some broadcaster with a valid claim on the frequency at that hour and place was being clobbered by us.. We couldn`t help it. Our job was to save the world and we did it while sometimes stepping on others in the process.

I guarantee we never put anything even close to 100KW into a dissipation line. Problem was the Signal Corps rhombic kits were maxed out at 5 KW and it took time to get bigger resistance wire. 100 KW in a dissipation line would have melted it in days if not sooner. As it was, standard G.I. lines lasted weeks while glowing a cheerful red and did not erupt in a blinding flash.

The wave travels along both wires simultaneously. The wires in the dissipation line melt at the input end not at the far end where the wire is smaller. Current does not travel through the line like the utility power frequency through a string of Christmas tree lights.

Tom needs to get with the reality of the program. His idea is seriously flawed.

Best regards, Richard Harrison, KB5WZI

825. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 04:03:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <cUF_f.64714$H71.33231@newssvr13.news.prodigy.com>
Source record: 61166

Tom Donaly wrote:
> I've said it before and I'll say it again, there is no phase variable
> in I1*cos(kx+wt) and there is no phase variable in I1*cos(kx-wt) so
> there can't possibly be any phase information in 2*I1*cos(kx)*cos(wt).

Sorry, you are wrong about that. EZNEC reports that phase information.
Assuming the EZNEC default convention, the source is 1.0 amp at zero
degrees at t=0. So the RMS value of the traveling wave current is
1.0 amp at -'kx' degrees. -'kx' *IS* the phase angle of the current
up and down the wire referenced to the source. It is negative because
the source naturally leads the traveling wave.

Note 'kx' is how far the point of interest is away from the source
in degrees.

Doesn't anyone understand phasors anymore?
--
73, Cecil http://www.qsl.net/w5dxp

826. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 04:04:13 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <1VF_f.2221$BS2.651@newsread1.news.pas.earthlink.net>
Source record: 61167

Cecil Moore wrote:
> John Popelish wrote:

>> If you have no interest in anything but butting heads with the people
>> who have disagreed with you, then, please stop responding to my posts.
>
> If you are into playing games, you are responding to the
> wrong person. Try W8JI or W7EL instead.

Heck, Cecil, you had years of participation in r.r.a.p. during which you were a pregnant man, a 300 foot tall alien or you were challenging others to dunk a basketball. I'd say that game playing is one of your favorite things.

Dave Heil K8MN

827. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 04:06:44 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <oXF_f.64715$H71.11625@newssvr13.news.prodigy.com>
Source record: 61168

Dave Heil wrote:
> Heck, Cecil, you had years of participation in r.r.a.p. during which you
> were a pregnant man, a 300 foot tall alien or you were challenging
> others to dunk a basketball. I'd say that game playing is one of your
> favorite things.

Wow, what a memory. :-)
--
73, Cecil http://www.qsl.net/w5dxp

828. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 04:08:34 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <6ZF_f.64716$H71.32645@newssvr13.news.prodigy.com>
Source record: 61169

Gene Fuller wrote:
> The question is what happens to the 75 degrees that was formerly
> represented by the now-replaced wire. The coil may offer about 10 degrees.

> I believe that Tom is stating that 75 is not equal to 10. Sounds like a
> reasonable statement to me.

No argument from me. Obviously you didn't understand my previous explanation that a resonant mobile antenna doesn't have to be 90 degrees long - something I explained weeks ago. Therefore, the coil doesn't have to be 75 degrees. Please re-read my postings again below until you understand what I said.

Think of all the possibilities that make (Vfor+Vref)/(Ifor+Iref) purely resistive without any one of those terms being in phase with any other of those terms. Then you will realize why that mobile antenna is probably not 90 degrees long at all.

In my earlier posting, I gave values of phase that make the feedpoint purely resistive without any one of those terms being in phase with any other one of those terms.

BOTTOM LINE: Until you can prove that a mobile antenna is 90 degrees long, your argument is just another straw man. What is it about my following previous statements that you don't understand?

> W5DXP wrote:
>> You are confused. Some time ago, I explained why a mobile antenna
>> may not be 90 degrees long at all. Did you understand that posting?
>> All we can say is that (Vfor+Vref)/(Ifor+Iref) is purely resistive.
>> We don't know how many degrees the reflected wave has traveled in
>> its round trip because there are too many variables.

>> So please stop the diversions. I have always said that the delay
>> through a coil *IS WHAT IT IS* but it is NOT zero and it is not the
>> 3 nS measured by W8JI for that 100 uH coil. It is also not the near-zero
>> phase shift measured by W7EL using standing wave current phase as the
>> reference. You, yourself, implied that is an invalid measurement when
>> you told us there is no phase information in standing wave phase.
>>
>> Seems to me you are making my argument for me and that your real
>> argument is with the other side. Have you told W7EL that standing
>> wave current phase cannot be used to measure the delay through a
>> coil?
--
73, Cecil http://www.qsl.net/w5dxp

829. Re: vert distortion?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 04:35:12 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144730112.219273.80940@i40g2000cwc.googlegroups.com>
Source record: 61171

What I see in a lot of commercial installations is a Yagi with a boom that's longer than it needs to be for the antenna itself, sticking out the "back" past the reflector. That part attaches to the mast. If you had a very long boom, you might want to counterbalance it with something if you did it that way, and you might want some way to support the end of the boom, like a non-conductive line up to the top of the mast. The feedline in an installation like that would go back along the boom to the mast, and then down.

Cheers,
Tom

830. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 06:58:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vjkm325dhgvn9st5ipkga6t4tlh6qgjqmt@4ax.com>
Source record: 61172

On Mon, 10 Apr 2006 23:05:48 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>You don't want to explain W5DXP models and answer his questions.

Yuri,

Even YOU cannot explain his models or answer his questions!

On Tue, 11 Apr 2006 04:08:34 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>BOTTOM LINE: Until you can prove that a mobile antenna is 90
>degrees long, your argument is just another straw man.

Are you guys on the same planet?

Now don't get me wrong, I enjoy the comedy all the same and your Punch
and Judy act keeps us all entertained, but don't confuse the applause
as nominations for the Nobel Prize in Physics.

73's
Richard Clark, KB7QHC

831. Re: Counterpoise wire length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 08:19:30 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <HoudnfaEKJUN-6bZRVn-ug@adelphia.com>
Source record: 61173

Say I was using a short wave receiver, and I'm on the second floor, without a good ground. I would be running a long wire. Would it help to cut a counterpoise for the bands I wish to listen to, a single wire for each band? Would it be 1/4, or 1/2 wave?

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv

-
"Yuri Blanarovich" <K3BU@optonline.net> wrote in message news:ofg_f.137$BX4.97@fe12.lga...
> Counterpoise to what?
>
> You need to describe what are you trying "counterpoison".
>
> Yuri, K3BU
>

832. Re: Counterpoise wire length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 08:23:19 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <NvWdnT0S5ec--qbZRVn-jg@adelphia.com>
Source record: 61174

Looks like I'm looking for a 1/4 wave. Thanks

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv

-
<w8ji@akorn.net> wrote in message
news:1144648418.476325.3080@u72g2000cwu.googlegroups.com...
>
> Harbin wrote:
>> Counterpoise wire length. I've heard that it should be 1/4 wave, and then again I've
>> heard it should be 1/2. Which is correct, or will they both work?
>
> The lowest impedance presented by a single counterpoise wire is when
> the counterpoise is resonant and 1/4 wl long electrically.
>
> When a single counterpoise wire is near 1/2 wl long and resonant, it
> has a very high end impedance.
>
> If the counterpoise is under a dipole or some other antenna just to
> isolate it from ground losses, a 1/2 wl long counterpoise or longer is
> best.
>
> If the counterpoise is used as a termination to allow forceing current
> into a Marconi antenna or an end-fed antenna, or used to provide a
> ground path for unwanted currents, it is best if it is 1/4 wl long.
>
> More counterpoise wires are always better, because the more you use the
> less critical length is and the lower loss is. There is of course a
> point where more won't help. With 1/4 wl wires, 50 or so placed
> radially are near perfect. Adding more won't make a noticeable
> difference. Once the counterpoise wires are .025 to .05 wavelengths
> apart at the widest points, adding more will generally not help.
>
> I use 100 200 foot long wires on one of my 160 meter verticals. On my
> other verticals I have 1/4 wl radials, and once I reached 40-50 radials
> adding more made no measureable difference at all.
>
> 73 Tom
>

833. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 09:29:45 UTC
From: w8ji@akorn.net
Message-ID: <1144747784.967613.137090@v46g2000cwv.googlegroups.com>
Source record: 61175

Richard Harrison wrote:

> The wave travels along both wires simultaneously. The wires in the
> dissipation line melt at the input end not at the far end where the wire
> is smaller. Current does not travel through the line like the utility
> power frequency through a string of Christmas tree lights.
>
> Tom needs to get with the reality of the program. His idea is seriously
> flawed.

I take it you are saying you think current can flow two directions at the same instant of time in a conductor, can be "lost" from a single conductor through radiation and resistance without a shunting impedance, conservation of charge isn't important, and Maxwell's equations are wrong.

You know that because you installed antennas at one point in your life. Is that correct or did I misunderstand your post?

73 Tom

834. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 11:40:18 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <CAM_f.67589$Jd.29414@newssvr25.news.prodigy.net>
Source record: 61076

Richard Harrison wrote:
> Tom, W8JI wrote:
> "Wave theory is just fine, but it has to be understood it is just a
> modeling shortcut and the results cannot conflict with the basic laws of
> physics,"
>
> The Quantum theory may replace the wave theory some day, but the wave
> theory has always satisfied my needs.

W8JI is confused above. Wave theory, i.e. the distributed network
model, is not much of a modeling shortcut. The lumped-circuit
model is the actual shortcut and is a subset of the distributed
network model. The lumped-circuit model conflicts much more
with Maxwell's laws than does the distributed network model
which conflicts hardly at all.
--
73, Cecil http://www.qsl.net/w5dxp

835. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 12:08:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <r%M_f.67593$Jd.9735@newssvr25.news.prodigy.net>
Source record: 61077

w8ji@akorn.net wrote:
> I take it you are saying you think current can flow two directions at
> the same instant of time in a conductor, can be "lost" from a single
> conductor through radiation and resistance without a shunting
> impedance, conservation of charge isn't important, and Maxwell's
> equations are wrong.

EM energy is certainly flowing in two directions because it is
a standing wave antenna. The forward current phasor is proportional
to the forward H-field. The reflected current phasor is proportional
to the reflected H-field. The two H-fields are superposed. That is
the same thing as adding the two current phasors.

Quoting Balanis: "Standing wave antennas, such as the dipole,
can be analyzed as traveling wave antennas with waves propagating in
opposite directions (forward and backward) and represented by
traveling wave antenna currents I(f) and I(b)."

W8JI says an antenna cannot be analyzed in that way. Who are we
to believe? Balanis or W8JI?

Balanis gives us permission to analyze two currents flowing in opposite
directions at the same time. After all, the superposition principle
allows us to do that. I'm sure Dr. Balanis would like to hear your
argument to the contrary.

Kraus agrees with Balanis and disagrees with you. "A sinusoidal
current distribution may be regarded as the standing wave produced
by two uniform (unattenuated) traveling waves of equal amplitude
moving in opposite directions along the antenna."

W8JI says it cannot be regarded in such terms. Who are we to
believe? Kraus or W8JI?

> ... can be "lost" from a single
> conductor through radiation and resistance without a shunting
> impedance, conservation of charge isn't important, and Maxwell's
> equations are wrong.

All we are saying is that the currents drops the same percentage
amount as does the voltage. Voltage and current share the same
identical attenuation factor. The E-field and H-field drop by the
same percentage. If your model absolutely requires a shunt
impedance, it can be found in the distributed LCLCLCLCLC model
of a transmission line.

Conservation of charge and conservation of energy are inviolate.

Maxwell's equations, as opposed to the flawed lumped-circuit model,
are correct. The distributed network model is a lot more like
Maxwell's equations than is the lumped-circuit model.
--
73, Cecil http://www.qsl.net/w5dxp

836. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 12:55:51 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <rHN_f.1399$1q4.679@bgtnsc05-news.ops.worldnet.att.net>
Source record: 61078

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> The question is what happens to the 75 degrees that was formerly
>> represented by the now-replaced wire. The coil may offer about 10
>> degrees.
>
>
>> I believe that Tom is stating that 75 is not equal to 10. Sounds like
>> a reasonable statement to me.
>
>
> No argument from me.

Cecil,

Does that end the thread? Or do you plan to keep expanding into unknown
territory where only your strawman lives?

73,
Gene
W4SZ

837. Re: 16 el coaxial colinear (2.4ghz) question - How 'bout this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 13:13:15 UTC
From: tucker@conninc.com
Message-ID: <1144761195.925372.80250@j33g2000cwa.googlegroups.com>
Source record: 61079

I tried to make the same antenna with 1/2" hardline & had several RF analyzers to help me, it never worked out. This article helps explain why coax wont work, I used wire and would my on coils for phasing, i also took apart a Madrax antenna to get the measurements, they used brass tubes inbetween the coils, not because its brass but so the 1/2 wave length can be easily adjusted.
http://www.centurion.com/home/pdf/wp_omni_wireless.pdf

838. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 13:16:33 UTC
From: "Peter O. Brackett" <none@no-such-domain.nul>
Message-ID: <R_N_f.3192$sq5.239@newsread2.news.atl.earthlink.net>
Source record: 61080

Reg et al:

[snip]
> The reason why both programs stop at 200 KHz has nothing to do with
> the foregoing. It is due to skin effect not being fully operative at
> lower frequencies which complicates calculations.
> There are other programs which go down to audio and power frequencies.
> ----
> Reg, G4FGQ
[snip]

It's a pity that your programs don't work all the way down to DC.

Maxwell's celebrated [I really should say Heaviside's] equations do!

Aside: It is Heaviside's vector formulation of Maxwell's complicated quaternic formulation with which most of we [modern] "electricians" are most familiar.

In fact the common/conventional mathematical formulation of the reflection coefficient rho and its' magnitude gamma as derived from the Maxwell/Heaviside equations are indeed valid from "DC to daylight".

Notwithstanding the views of some, there are indeed "reflected waves" at DC and even these "DC reflections" are correctly predicted by the widely accepted and celebrated common/conventional mathematical models of electro-magnetic phenomena, formulated by Maxwell and Heaviside.

Reg I assume the reason for your programs failure to give [correct] answers below 200 kHz is because your "quick and dirty" programs do not utilize full mathematical models for skin effect below 200 kHz. As you know, solving Maxwell's equations for analytical solutions of practical problems is fraught with great difficulties and so often numerical techniques [MoM, FEM, etc...] or empirical parametric methods are used.

Most [non-parametric] analytic skin effect models derived from Maxwell and Heaviside's equations [such as those in Ramo and Whinnery] involve the use of "transcendental" functions that although presented in a compact notation, even still do not succumb to "simple" evaluation.

Surely though skin effect is easier to model below 200 kHz where the effect becomes vanishingly smaller? And so I don't understand why your programs cannot provide skin effects below 200 kHz.

If you are interested I can point you to some [lumped model] skin effect models for wires [based upon concentric ring/cylindrical models] that, although parametric and empirical, are very "compact" and easly evalutate

and which closely model skin effect, and other secondary effects such as "proximity crowding", up to prescribed frequency limits as set by the "parameters".

These models simply make empirical parametric corrections to the basic R-L-C-G primary parameters by adding a few correction terms.

Thoughts, comments?

--
Pete k1po
Indialantic By-the-Sea, FL

839. Re: Transforner Theory

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 13:25:04 UTC
From: "Peter O. Brackett" <none@no-such-domain.nul>
Message-ID: <Q6O_f.5672$i41.4961@newsread1.news.atl.earthlink.net>
Source record: 61081

Roy:

Yes, that's why "gapped" cores must be used for precision [inductance] work.

The properties of the basic core materials are too difficult to control during manufacture and hence result in manufactured pieces of wide variability. In addition the basic core material properties exhibit a wide variation under environmental variations such as temperature, pressure, etc...

Inserting an accurately calibrated air gap in the magnetic path, by grinding the pot core center posts to a specific Al or alpha, accurately regulates the overall reluctance of the magnetic path and overcomes both of these variable effects, it alsow and allows the engineering of high performance "precision" inductors. In addition the air gap also mitigates a lot of the non-linear effects noted at higher levels of flux density.

Gapped cores are "de riguer" for precision work. Ungapped cores are only used for "sloppy" inductance work. This includes many applications of transformers as well.

--
Pete k1po
Indialantic By-the-Sea, FL

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:123jk90b36oii42@corp.supernews.com...
> It's been quite a few years now, so things might have changed. But some
> time back I learned a bit about the ferrite manufacturing process. It
> turns out that the green ceramic shrinks by something like 20 or 25
> percent during the firing process, with poor control over the amount of
> shrinkage. The gaps in gapped pot cores, I found, were only nominally the
> specified gap width -- each pot core was individually ground to meet the
> Al specification, not some specification on air gap size. This isn't
> important in using them, but I found it interesting.
>
> What you get with an air gap in trade for effective permeability, is much
> greater independence of Al from the core characteristics (material
> permeability and physical size) and therefore much greater stability with
> regard to temperature and flux density, and much greater flux density
> capability.
>
> Roy Lewallen, W7EL
>
> Peter O. Brackett wrote:
>> Inductance core fans:

>>
>> [snip]
>>> PS. interesting how pot cores have very little inductance change with
>>> changing gausse.
>> [snip]
>>
>> Most, if not all, pot cores used for "precision" inductors and
>> transformers come in matched pairs with a very accurately ground narrow
>> air gap between the two center posts. The Al (or alpha from some mfgs)
>> is accurately set by the width of the air gap as ground during
>> manufacture. The air gap also forms a large part of the overall magnetic
>> path (air having a much larger reluctance than the ferrite). Such pot
>> cores for precision inductors usually have an adjustable slug (set with a
>> non magnetic screwdriver) to allow the finally assembled inductor to be
>> set to an "exact" value.
>>
>> And so... pot cores intended for use in making precision inductors (as in
>> filters or delay equalizers) or precision transformer applications
>> exhibit little change in inductance over a wide range of conditions
>> simply because of the air gap.
>>
>> --
>> Pete k1po
>> Indialantic By-the-Sea, FL

840. Yet another microwave question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 13:43:37 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <noO_f.1069$B42.731@dukeread05>
Source record: 61082

I'm upgrading my laptop's antennas to 15" long 7dbi gain monsters (2).
I don't have the materials (connectors) to do the job right so in true ham
fashion, I cobbled up a solution:

I have a 1.37mm od 50 ohm feedline (excellent quality) going up the
back of my screen. Currently I have the braid/center separated at the
end and soldered to my antennas. The new antennas have rp-tnc
connectors and I don't have the proper bulkhead connectors for them.

I found that a spare component (barrel diode) lead is a nice press fit
for not only the center socket on the antenna but also for the shield so
I plan on inserting the wire where it goes and soldering the coax to the
wires. This will result in 2mm of distance between where the coax is
stock (unseperated) and the new antennas' rp-tnc connector.

Now - if I used bulkhead solder rp-tnc connectors, I don't think I could
get that 2mm any smaller. As a matter of fact, I suspect, looking at
Amphenol's specs, the new distance where the coax is separated would
be greater. I can find no rp-tnc connectors for my micro coax so that's out.
I've got to solder. I've seen many examples of where feedline is fed to
a bulkhead connector like this, and sometimes they have 12mm of separated
line but that was in a VHF application.

So my question is this: If I keep my separated coax run (between the end of
the coax and the rp-tnc antenna connector) to 2mm or less, what will that do
as an impedance bump or otherwise at 2412 mhz? How critical is it at these
freqs?

Thanks for the help!

--
73's de Ken KG0WX - Kadiddlehopper #11808,
Flying Pigs #-1055, Grid EM17io,
Elecraft K2 #4913, XG2, 4SQRP Tenna Dipper,
Heath GD-1B, MP-1(X)antenna

841. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 13:56:53 UTC
From: richardharrison@webtv.net
Message-ID: <2025-443BB5A5-730@storefull-3252.bay.webtv.net>
Source record: 61085

Tom, W8JI wrote:
"I take it you are saying you think current can flow two directions at the same instant of time in a conductor through radiation and resistance without a shunting impedance, conservation of charge isn`t important, and Maxwell`s equarions are wrong."

That`s the wrong take.

Maxwell works for me even if there is no aether.

Anntennas work in free space without a ground but it is hard to duplicate free space conditions at high and lower frequencies here on earth.

Every standing-wave antenna has a reflection caused by an impedance discontinuity at wire`s end. At this point, a reflection begins its travel back toward the generator. By the time the reflection arrives at the generator, every point on the wire has current flowing in both directions simultaneously. No shunting capacitance to earth or anyplace else is needed to conserve charge. The wire is self-sufficient.

Radiation resistance is a convenience defined as the resistance which if placed in series with an antenna would consume the same power that the antenna is radiating.

At every point along an antenna with a reflection, current is flowing in two directions at the same time.

Best regards, Richard Harrison, KB5WZI

842. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 13:57:30 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <eBO_f.46199$_S7.27383@newssvr14.news.prodigy.com>
Source record: 61083

Gene Fuller wrote:
> Does that end the thread?

Does agreeing that 75 is not equal to 10 end the thread?
Of course not. That posting *ASSUMED FOR THE SAKE OF
DISCUSSION* that EZNEC was reporting the actual delay
through the coil. I suspect it is not reporting the
actual delay because reflections are still present
inside the coil. The characteristic impedance changes
abruptly at the top of the coil so that would be no
surprise at all.

We know EZNEC blindly reports the net current that is
there. If we, as modelers, don't eliminate reflections,
EZNEC will not correctly report the traveling wave phase
shift. In our naivete', we didn't eliminate reflections.

75 degrees is probably not correct. 10 degrees is
probably not correct. Why do you want to quit before
the correct answer has been found?

****
Here's a more valid procedure for determining the
delay through a coil. Changing nothing except the
number of turns, add turns until the coil is self-
resonant at the frequency of use. Frequency doesn't
change. Coil diameter doesn't change. Turns per inch
doesn't change. The *ONLY* thing that changes is the
length of the coil. At self-resonance, we *know* the
longer coil is 90 degrees long.
****

Take that same 32 turn coil and keeping everything the
same, add turns to the coil until it is self-resonant.
We haven't changed the frequency, the diameter, or the
turns per inch. All we have done is add 37 turns to the
original 32 turn coil to make the self-resonant frequency
equal to 4 MHz with 69 turns. SINCE WE HAVEN'T CHANGED
THE FREQUENCY, WE KNOW THAT THE VELOCITY FACTOR OF THE
COIL HAS NOT CHANGED.

In the velocity factor equation, the only variables are
coil diameter, turns per inch, and wavelength. NONE OF
THOSE VARIABLES ARE CHANGED ABOVE.

So we know that 69 turns makes that coil stock self-resonant
at 4 MHz. That would make the phase shift through 32 turns
equal to 42 degrees, making our above 10 degree assumption
false. 42 degrees is probably fairly close to the actual value.
The velocity factor for that coil stock calculates out to
be 0.023 on 4 MHz.

The delay through a coil is what it is. The only valid side
to this argument are technical facts, valid measurements,
and valid modeling.
--
73, Cecil http://www.qsl.net/w5dxp

843. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 14:03:44 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <4HO_f.10160$4L1.3757@newssvr11.news.prodigy.com>
Source record: 61084

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> I've said it before and I'll say it again, there is no phase variable
>> in I1*cos(kx+wt) and there is no phase variable in I1*cos(kx-wt) so
>> there can't possibly be any phase information in 2*I1*cos(kx)*cos(wt).
>
>
> Sorry, you are wrong about that. EZNEC reports that phase information.
> Assuming the EZNEC default convention, the source is 1.0 amp at zero
> degrees at t=0. So the RMS value of the traveling wave current is
> 1.0 amp at -'kx' degrees. -'kx' *IS* the phase angle of the current
> up and down the wire referenced to the source. It is negative because
> the source naturally leads the traveling wave.
>
> Note 'kx' is how far the point of interest is away from the source
> in degrees.
>
> Doesn't anyone understand phasors anymore?

You missed the point again, Cecil. Carry on.
73,
Tom Donaly, KA6RUH

844. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 14:14:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <fRO_f.46202$_S7.37266@newssvr14.news.prodigy.com>
Source record: 61086

Tom Donaly wrote:

> Cecil Moore wrote:
>> Doesn't anyone understand phasors anymore?
>
> You missed the point again, Cecil. Carry on.

The point is that there is phase information in the
traveling wave equation. -'kx' *IS* the phase and
is reported by EZNEC at:
http://www.qsl.net/w5dxp/travstnd.GIF
--
73, Cecil http://www.qsl.net/w5dxp

845. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 15:34:37 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <h0Q_f.58160$F_3.55299@newssvr29.news.prodigy.net>
Source record: 61087

Richard Harrison wrote:
> Tom, W8JI wrote:
> "I take it you are saying you think current can flow two directions at
> the same instant of time in a conductor through radiation and resistance
> without a shunting impedance, conservation of charge isn`t important,
> and Maxwell`s equarions are wrong."
>
> That`s the wrong take.
>
> Maxwell works for me even if there is no aether.
>
> Anntennas work in free space without a ground but it is hard to
> duplicate free space conditions at high and lower frequencies here on
> earth.
>
> Every standing-wave antenna has a reflection caused by an impedance
> discontinuity at wire`s end. At this point, a reflection begins its
> travel back toward the generator. By the time the reflection arrives at
> the generator, every point on the wire has current flowing in both
> directions simultaneously. No shunting capacitance to earth or anyplace
> else is needed to conserve charge. The wire is self-sufficient.
>
> Radiation resistance is a convenience defined as the resistance which if
> placed in series with an antenna would consume the same power that the
> antenna is radiating.
>
> At every point along an antenna with a reflection, current is flowing in
> two directions at the same time.
>
> Best regards, Richard Harrison, KB5WZI
>

Completely wrong, as usual. There is nothing in the natural world
that can double itself and go two opposite directions at the same
time. In order to do so it would have to violate the principle of
the conservaton of charge. At any instant, the charge at a point
has to be going either one direction or another which you can
confirm using the wave equation which Cecil doesn't understand
any more than you do. Superposition is a fine principle, but
like any intellectual tool it has to be understood to be used
properly.
73,
Tom Donaly, KA6RUH

846. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 15:36:02 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <C1Q_f.58161$F_3.7484@newssvr29.news.prodigy.net>
Source record: 61088

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> Cecil Moore wrote:
>>
>>> Doesn't anyone understand phasors anymore?
>>
>>
>> You missed the point again, Cecil. Carry on.
>
>
> The point is that there is phase information in the
> traveling wave equation. -'kx' *IS* the phase and
> is reported by EZNEC at:
> http://www.qsl.net/w5dxp/travstnd.GIF

You still don't get it.
73,
Tom Donaly, KA6RUH

847. Re: Counterpoise wire length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 15:41:13 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <A6Q_f.2315$B52.1318@fe12.lga>
Source record: 61089

If you are using long wire for different bands, you can tap to your water pipe for ground, or metal frame of the screen door, or most likely your RX is already "grounded" through its AC PS. You can try through capacitor of about 10000 uuF/1kV from your RX ground to your ground pin the AC outlet. Alternative I used for antenna when in restricted area, just run wire from ant terminal on RX through capacitor of about 10 k rated at least at 3000V to one of the connections in AC outlet, well insulated and mounted in AC plug.

Yuri, K3BU

"Harbin" <harbinjr@adelphia.net> wrote in message
news:HoudnfaEKJUN-6bZRVn-ug@adelphia.com...
> Say I was using a short wave receiver, and I'm on the second floor,
> without a good
> ground. I would be running a long wire. Would it help to cut a
> counterpoise for the
> bands I wish to listen to, a single wire for each band? Would it be 1/4,
> or 1/2 wave?
>
> --
> SeeYaa:) Harbin Osteen KG6URO
>

848. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 15:45:24 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144770324.537592.101610@t31g2000cwb.googlegroups.com>
Source record: 61090

It's clear to me that Richard can quote references and cite anecdotal evidence from his own work. What's not clear to me is that Richard has read and understood what W8JI actually wrote.

I would ask if he believes in the physical reality of charge, but suppose that's not at issue here.

Instead, I'll simply point out that there is NO fundamental disagreement between what Tom wrote and:
--properly developed theory based on standing waves
--properly developed theory based on travelling waves
--properly developed TEM transmission line theory
--Schelkunoff's antenna mode theory
--the King-Middleton second-order (antenna) theory
--even the work of Gauss, Ampere, Faraday, Maxwell et al.

It's like Ian White _tried_ to point out some postings ago, any theory which is seriously enough at odds with reality is not likely to be useful; but all that theoretical development is NOT at odds in the VLF/LF/MF/HF/VHF/UHF world we customarily deal in, and certainly not with what Tom wrote.

That current on a transmission line tapers as you get further from the source is no surprise, but in no way does it conflict with what Tom wrote. Anyone familiar with basic electronic components should have no trouble understanding that, thinking about it simply from the point of view of charge, and how it moves. A degree in electronics is not required.

Understanding the congrence among many methods/theories is a very nice thing, for it gives one confidence that they are correct, and the ability to apply the one that's most convenient to any particular problem. I would not want to take away wave theory, or any other valid theory, from you; I would only ask that you better understand that your pet is not the ONLY valid explanation.

And THAT in now way condones some of the terrible misrepresentations of valid theories that I see here. But again, if you understand how various valid theories are congruent, you're in a much better position to spot the misrepresentations.

Cheers,
Tom

In Message-ID: <17929-443B29E8-742@storefull-3255.bay.webtv.net>,
Richard Harrison wrote:

Tom, W8JI wrote:

"Wave theory is just fine, but it has to be understood it is just a modeling shortcut and the results cannot conflict with the basic laws of
physics,"

The Quantum theory may replace the wave theory some day, but the wave theory has always satisfied my needs.

Terman writes on page 84 of his 1955 edition:
"The quantity aq. rt. of ZY is called the propagation constant of the line. It is a complex quantity, having a real part alpha called the attenuation constant and an imaginary part beta termed the phase constant."

On the next page 85, Terrman has diagrams showing behavior of the voltages of the incident and reflected waves on a transmission line. It is the same as that on antennas. That`s why the antenna section of Terman`s book tells the reader to refer to the transmission line chapter
for the behavior of antennas. It`s identical.

I`ve erected and operated countless rhombics in the international broadcasting service. I`ve underloaded them and overloaded them and in the process melted plenty of dissipation lines. I can attest that Terman
has it right. Sometimes you have to do what you`ve got to do even when you know better.

When the dissipation line went away we would cover outh America as well as Central Europe and get lots of fan mail for our troubles. We shouldn`t have been getting fan mail from South America but lots of Central Europeans were living there as refugees from the Axis and from the Allies. When we covered South America, some broadcaster with a valid
claim on the frequency at that hour and place was being clobbered by us.. We couldn`t help it. Our job was to save the world and we did it while sometimes stepping on others in the process.

I guarantee we never put anything even close to 100KW into a dissipation
line. Problem was the Signal Corps rhombic kits were maxed out at 5 KW and it took time to get bigger resistance wire. 100 KW in a dissipation line would have melted it in days if not sooner. As it was, standard G.I. lines lasted weeks while glowing a cheerful red and did not erupt in a blinding flash.

The wave travels along both wires simultaneously. The wires in the dissipation line melt at the input end not at the far end where the wire
is smaller. Current does not travel through the line like the utility power frequency through a string of Christmas tree lights.

Tom needs to get with the reality of the program. His idea is seriously flawed.

Best regards, Richard Harrison, KB5WZI

849. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 16:15:04 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <jCQ_f.2434$B52.111@fe12.lga>
Source record: 61091

Richard H.,
He is stuck on DC in a coil. Tom did not discover Standing Waves,
Impedances, Currents, Voltages in RF circuits, antennas, feedlines.
Heloooo! IT'S RF and standing waves along the resonant antenna and things
to do with RF energy along them radiators, like sin and cos distribution of
voltage and current. Which show that current and voltage can be ZERO along
the conducting wire, aka antenna. First he used Kirchoff, now is Maxwell to
the "rescue" to muddy the waters.
Maybe we should apply for him for vanity callsign WR0NG :-)

Yuri, K3BU

<w8ji@akorn.net> wrote in message
news:1144747784.967613.137090@v46g2000cwv.googlegroups.com...
> Richard Harrison wrote:
>
>> The wave travels along both wires simultaneously. The wires in the
>> dissipation line melt at the input end not at the far end where the wire
>> is smaller. Current does not travel through the line like the utility
>> power frequency through a string of Christmas tree lights.
>>
>> Tom needs to get with the reality of the program. His idea is seriously
>> flawed.
>
> I take it you are saying you think current can flow two directions at
> the same instant of time in a conductor, can be "lost" from a single
> conductor through radiation and resistance without a shunting
> impedance, conservation of charge isn't important, and Maxwell's
> equations are wrong.
>
> You know that because you installed antennas at one point in your life.
> Is that correct or did I misunderstand your post?
>
> 73 Tom
>

850. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 16:53:19 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144774399.040450.55480@i39g2000cwa.googlegroups.com>
Source record: 61092

Could you please enlighten us, Cecil, exactly why you think that
anything in all of W8JI's full posting referenced by reference below
where he implicitly or explicitly says anything at all about a lumped
model, or about lumped behaviour? After a careful search, I'm unable
to find it. I only find a discussion of distributed behaviour in a
circuit which extends beyond near field.

Cheers,
Tom

(On the other hand, all the wave and field theory I know was developed
to explain and model the forces among charges, and the reaction--the
motion and accumulation--of those charges as a result of those forces.
That's EXACTLY what I DO see W8JI writing about in the referenced
posting.)

==========
Cecil wrote in a message whose ID can be provided upon request,
Richard Harrison wrote:
> Tom, W8JI wrote:
> "Wave theory is just fine, but it has to be understood it is just a
> modeling shortcut and the results cannot conflict with the basic laws of
> physics,"

> The Quantum theory may replace the wave theory some day, but the wave
> theory has always satisfied my needs.

W8JI is confused above. Wave theory, i.e. the distributed network
model, is not much of a modeling shortcut. The lumped-circuit
model is the actual shortcut and is a subset of the distributed
network model. The lumped-circuit model conflicts much more
with Maxwell's laws than does the distributed network model
which conflicts hardly at all.
--
73, Cecil http://www.qsl.net/w5dxp

851. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 17:23:25 UTC
From: richardharrison@webtv.net
Message-ID: <25827-443BE60D-679@storefull-3257.bay.webtv.net>
Source record: 61093

Tom Donaly, KA6RUH wrote:
"There is nothing in the natural world that can double itself and go in the opposite direction at the same time."

Watch water waves slam into a bulkhead and you can see the reflected waves interfere with the incident waves as they travel in the opposite directions.

Electrical waves, incident and reflected, pass through each other too. In the antenna or transmission line, the charge is impelled by the energy supplied by the generator to move back and forth on the surface of the wire at the radio frequency rate.

The incident wave and the reflected wave on a transmission line travel in opposite directions. At certain points along the line the voltages in the waves will be in phase and will add, while in other points they will be out of phase and subtract. The points along the line where the two voltages are in phase are points of maximum voltage and minimum current and are spaced one half wavelength apart. The points along the line where the two voltages are 180-degrees out of phase are points of minimum voltage and maximum current and are also one half wavelength apart. The distance between alternate points is one-quarter wavelength.

The reflection of a radio wave is a natural occurrence. When the voltage produced by the incident wave hits the open-circuit of a wire it doubles itself and starts a wave propagating in the opposite direction while the incident waves are yet arriving at the open-circuit.

Best regards, Richard Harrison, KB5WZI

852. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 17:37:32 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <123nqbaj6mh2q47@corp.supernews.com>
Source record: 61094

Tom Donaly wrote:
> Richard Harrison wrote:
>
>> Tom, W8JI wrote:
>> "I take it you are saying you think current can flow two directions at
>> the same instant of time in a conductor through radiation and resistance
>> without a shunting impedance, conservation of charge isn`t important,
>> and Maxwell`s equarions are wrong."
>>
>> That`s the wrong take.
>>
>> Maxwell works for me even if there is no aether.
>>
>> Anntennas work in free space without a ground but it is hard to
>> duplicate free space conditions at high and lower frequencies here on
>> earth.
>>
>> Every standing-wave antenna has a reflection caused by an impedance
>> discontinuity at wire`s end. At this point, a reflection begins its
>> travel back toward the generator. By the time the reflection arrives at
>> the generator, every point on the wire has current flowing in both
>> directions simultaneously. No shunting capacitance to earth or anyplace
>> else is needed to conserve charge. The wire is self-sufficient.
>>
>> Radiation resistance is a convenience defined as the resistance which if
>> placed in series with an antenna would consume the same power that the
>> antenna is radiating.
>>
>> At every point along an antenna with a reflection, current is flowing in
>> two directions at the same time.
>>
>> Best regards, Richard Harrison, KB5WZI
>
>
> Completely wrong, as usual. There is nothing in the natural world
> that can double itself and go two opposite directions at the same
> time. In order to do so it would have to violate the principle of
> the conservaton of charge. At any instant, the charge at a point
> has to be going either one direction or another which you can
> confirm using the wave equation which Cecil doesn't understand
> any more than you do. Superposition is a fine principle, but
> like any intellectual tool it has to be understood to be used
> properly.
> 73,

> Tom Donaly, KA6RUH

Tom

Have you ever sloshed water in a bowl? If you had you would have seen wave forms going in both directions. First the initial wave crosses the bowl then reflects off the side of the bowl and returns in the opposite direction.
This is the same as an EMF wave in an antenna. No violation of any principles of conservation, in fact it is demanded of the principle.

Dave WD9BDZ

853. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 17:38:21 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <hQR_f.2083$1q4.920@bgtnsc05-news.ops.worldnet.att.net>
Source record: 61095

Cecil Moore wrote:

>
> Here's a more valid procedure for determining the
> delay through a coil.

Cecil,

So you think adding turns to a coil is a nice linear process that allows you to then subdivide the resonance effects according the number of turns in each subsection?

That's a good one. I almost injured myself laughing when I read it.

73,
Gene
W4SZ

854. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 17:42:41 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123nqkkt9q5t860@corp.supernews.com>
Source record: 61096

Peter O. Brackett wrote:
> . . .
> Most [non-parametric] analytic skin effect models derived from Maxwell and
> Heaviside's equations [such as those in Ramo and Whinnery] involve the use
> of "transcendental" functions that although presented in a compact notation,
> even still do not succumb to "simple" evaluation.
>
> Surely though skin effect is easier to model below 200 kHz where the effect
> becomes vanishingly smaller? And so I don't understand why your programs
> cannot provide skin effects below 200 kHz.
>
> If you are interested I can point you to some [lumped model] skin effect
> models for wires [based upon concentric ring/cylindrical models] that,
> although parametric and empirical, are very "compact" and easly evalutate
> and which closely model skin effect, and other secondary effects such as
> "proximity crowding", up to prescribed frequency limits as set by the
> "parameters".
>
> These models simply make empirical parametric corrections to the basic
> R-L-C-G primary parameters by adding a few correction terms.
>
> Thoughts, comments?

Calculation of skin effect in a round wire is simple, provided that you have the ability to calculate various Bessel functions. Libraries in Fortran are widely available, and probably in other languages also. NEC-2 (and therefore EZNEC) does such a full calculation for evaluation of wire loss. A side benefit of doing this is that you also get an accurate evaluation of the internal inductance. However, in practical terms, you can do quite well with the common skin depth approximation based on the assumption that the wire diameter is at least several skin depths, and an interpolation from there to the DC case.

Coaxial cable is more problematic than twinlead. Most analyses assume that the resistance of the shield is negligible. But for an accurate evaluation, you need to include it. At high frequencies it's simple, but it's much more difficult at low frequencies than for a round wire, since most equations you'll find require subtracting huge numbers from each other, exceeding the capability of even double precision on modern PCs. It's possible but requires some mathematical manipulation and trickery.

With coax at low frequencies, the fields from the two conductor currents reach the outside of the cable. While they should still cancel, this might cause some problems with the assumptions we normally make in the analysis of coaxial transmission lines.

You're not likely to be able to do a very good job of predicting real life transmission line behavior in any case, though, unless you account for such real factors as the roughness of stranded conductors, braided coax shield, and plated conductors. I'd also expect twinlead with solid or punched polyethylene insulation between conductors to be somewhat dispersive (that is, having a velocity factor which changes with frequency), but I've never tried to measure it. Reg has said he's measured many pieces of real cable and found its loss to agree with his earlier coax program, but won't tell us where he buys it. Everything I've ever been able to buy is considerably lossier.

Roy Lewallen, W7EL

855. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 17:57:40 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <o6S_f.65004$H71.12315@newssvr13.news.prodigy.com>
Source record: 61097

Tom Donaly wrote:
> There is nothing in the natural world
> that can double itself and go two opposite directions at the same
> time.

Seems your ignorance also extends to entangled particles?

> In order to do so it would have to violate the principle of
> the conservaton of charge.

This is simply one more example of the seduction of other-
wise intelligent people by the lumped-circuit model's
unproven presuppositions.

You are confusing charge with EM wave energy. If two EM light
waves traveling in opposite directions can cause a standing
wave in empty space, then so can two RF waves traveling in
opposite directions in space or around a wire. There is no
requirement for current at all. Current is a left over
artifact from the DC model. In fact, it can be proven
that virtually all of the energy (power) exists solely in
the two EM waves surrounding the wire and virtually none in
the conductor. All that is required for standing waves is
E-fields and H-fields traveling in opposite directions WHETHER
A WIRE EXISTS OR NOT.

If everyone were using Maxwell's equations instead of flawed
simplified models, none of this confusion would exist. All
of the energy is in the waves and none in the current or
voltage. After all, E x H is the *total power* in a wave.
There is no extra energy left over to support voltage and
current.
--
73, Cecil http://www.qsl.net/w5dxp

856. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 17:58:07 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <P6S_f.2130$1q4.742@bgtnsc05-news.ops.worldnet.att.net>
Source record: 61098

David G. Nagel wrote:
>
> Tom
>
> Have you ever sloshed water in a bowl? If you had you would have seen
> wave forms going in both directions. First the initial wave crosses the
> bowl then reflects off the side of the bowl and returns in the opposite
> direction.
> This is the same as an EMF wave in an antenna. No violation of any
> principles of conservation, in fact it is demanded of the principle.
>
> Dave WD9BDZ

Dave,

You have highlighted a misconception that is common and a great cause of confusion in this forum.

Yes, the "waves" can do what you say. However, the "waves" are merely mathematical descriptions of the underlying physical phenomena. There is simply no such thing as a "wave" all by itself. Instead there are water waves, electromagnetic field waves, guitar string waves, sound waves, and so on.

Nature tends to be single valued, at least in the ordinary classical world. At any specific point in time and space there is only one value of current, one value of electric field, one value for the motion of a particle (water molecule, guitar string molecule, etc.), one charge density, and so on. These values can and do change with differences in time and space. However, the physical entities do not have two values at once in the same time and place.

73,
Gene
W4SZ

857. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 17:58:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <x7S_f.65005$H71.54670@newssvr13.news.prodigy.com>
Source record: 61099

Tom Donaly wrote:
> You still don't get it.

And you still haven't posted any technical information
to contradict the technical information that I am posting.
One wonders why?
--
73, Cecil http://www.qsl.net/w5dxp

858. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 18:06:11 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <neS_f.10001$YT1.8213@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61100

Cecil,

Are you practicing your stand-up comedy routine? You are in rare form today.

Why didn't you set us straight about 3000 messages ago? If only we knew
that RF current was a mere artifact we could have shortened this thread
to one message.

73,
Gene
W4SZ

Cecil Moore wrote:
>
> You are confusing charge with EM wave energy. If two EM light
> waves traveling in opposite directions can cause a standing
> wave in empty space, then so can two RF waves traveling in
> opposite directions in space or around a wire. There is no
> requirement for current at all. Current is a left over
> artifact from the DC model. In fact, it can be proven
> that virtually all of the energy (power) exists solely in
> the two EM waves surrounding the wire and virtually none in
> the conductor. All that is required for standing waves is
> E-fields and H-fields traveling in opposite directions WHETHER
> A WIRE EXISTS OR NOT.
>
> If everyone were using Maxwell's equations instead of flawed
> simplified models, none of this confusion would exist. All
> of the energy is in the waves and none in the current or
> voltage. After all, E x H is the *total power* in a wave.
> There is no extra energy left over to support voltage and
> current.

859. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 18:06:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <seS_f.65007$H71.38819@newssvr13.news.prodigy.com>
Source record: 61101

K7ITM wrote:
> Understanding the congrence among many methods/theories is a very nice
> thing, for it gives one confidence that they are correct, and the
> ability to apply the one that's most convenient to any particular
> problem. I would not want to take away wave theory, or any other valid
> theory, from you; I would only ask that you better understand that your
> pet is not the ONLY valid explanation.

The point is that in any disagreement between the lumped-circuit
model and a properly applied distributed network model, the
lumped-circuit model loses *EVERY* time since the lumped-circuit
model is a *SUBSET* of the distributed network model.

If your current charge concepts disagree with Maxwell's equations,
Maxwell's equations win *EVERY* time. Maxwell's equations do not
require individual charge carriers. They work just fine considering
only fields in the aether.
--
73, Cecil http://www.qsl.net/w5dxp

860. Re: 16 el coaxial colinear (2.4ghz) question - How 'bout this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 18:10:04 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <0iS_f.11270$gy2.9132@trnddc08>
Source record: 61102

<tucker@conninc.com> wrote in message
news:1144761195.925372.80250@j33g2000cwa.googlegroups.com...
> I tried to make the same antenna with 1/2" hardline & had several RF
> analyzers to help me, it never worked out. This article helps
> explain why coax wont work, I used wire and would my on coils for
> phasing, i also took apart a Madrax antenna to get the measurements,
> they used brass tubes inbetween the coils, not because its brass but so
> the 1/2 wave length can be easily adjusted.
> http://www.centurion.com/home/pdf/wp_omni_wireless.pdf

Hi Tucker

Thanks for reference to that great site. I really like that flat antenna.

Jerry

861. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 18:27:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <6yS_f.65011$H71.11431@newssvr13.news.prodigy.com>
Source record: 61103

K7ITM wrote:
> Could you please enlighten us, Cecil, exactly why you think that
> anything in all of W8JI's full posting referenced by reference below
> where he implicitly or explicitly says anything at all about a lumped
> model, or about lumped behaviour? After a careful search, I'm unable
> to find it. I only find a discussion of distributed behaviour in a
> circuit which extends beyond near field.

W8JI is right 99% of the time. I agree with him on those
things as do you. Your above posting is no surprise.

Here's one of W8JI's statements. Please defend it.

>W8JI said:
> > Radiation does not cause current taper. Dissipation does not either.

What is contained in the attenuation factor for the current
transmission line equation if not radiation and dissipation?
What else is there?
--
73, Cecil http://www.qsl.net/w5dxp

862. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 18:30:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <xBS_f.65012$H71.125@newssvr13.news.prodigy.com>
Source record: 61104

Gene Fuller wrote:
> So you think adding turns to a coil is a nice linear process that allows
> you to then subdivide the resonance effects according the number of
> turns in each subsection?

That appears to me to be the most valid measurement that we
can make of the delay through a coil. If you have a better
way, please present it.
--
73, Cecil http://www.qsl.net/w5dxp

863. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 18:35:39 UTC
From: richardharrison@webtv.net
Message-ID: <2026-443BF6FB-170@storefull-3252.bay.webtv.net>
Source record: 61107

Gene, W4SZ wrote:
"However, the physical entities do not have two values at once in the same time and place."

You can measure each of the two simultaneous constituents with the right equipment. A Bird Thruline wattmeter uses a directional coupler to separate forward direction power from reverse direction power. These are obbtainable at the same time and place anywhere in a 50-ohm coax line. Individual volts and amps in each direction are easily calcuable from the powers indicated in each direction.

Best regards, Richard Harrison, KB5WZI

864. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 18:35:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <2GS_f.65013$H71.23871@newssvr13.news.prodigy.com>
Source record: 61105

Gene Fuller wrote:
> ... one value for the motion of a particle ...

Now I know you are pulling our legs. We are talking about
electrons, Gene, you know that "particle" capable of
going through two slits at the same time and interferring
with itself on the other side?

Please pick out just one electron and tell us what is
its position and velocity.
--
73, Cecil http://www.qsl.net/w5dxp

865. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 18:40:03 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7KS_f.65014$H71.41009@newssvr13.news.prodigy.com>
Source record: 61106

Gene Fuller wrote:
> Why didn't you set us straight about 3000 messages ago? If only we knew
> that RF current was a mere artifact we could have shortened this thread
> to one message.

Well Gene, that fact didn't occur to me 3000 messages ago so I
recently corrected my mistaken concepts. What do you do when you
discover a mistaken concept of your own? (rhetorical question)

Truth is, I'm still learning. How about you?
--
73, Cecil http://www.qsl.net/w5dxp

866. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 19:22:15 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <HIT_f.10322$YT1.4749@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61108

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> So you think adding turns to a coil is a nice linear process that
>> allows you to then subdivide the resonance effects according the
>> number of turns in each subsection?
>
>
> That appears to me to be the most valid measurement that we
> can make of the delay through a coil. If you have a better
> way, please present it.

Cecil,

C'mon, you know as well as anybody that inductance of a coil tends to increase as n-squared. Yes, there are all kinds of special cases and correction factors.

Adding turns and then pretending everything is nice and linear, thereby allowing decomposition into subcomponents, is just plain silly.

73,
Gene
W4SZ

867. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 19:22:36 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144783356.460954.118080@i39g2000cwa.googlegroups.com>
Source record: 61109

Cecil, can I infer from your reply that you, too, can't find anything
in W8JI's original posting that refers to a lumped model?

With respect to your request, I suggest you re-read Tom's whole posting
and see if you can understand it. W8JI should perhaps have included in
the statement you quoted, "in and of itself/themselves," but certainly
it's accurate in the context from which you've extracted it. Certainly
you can have "current taper" along an antenna or along a TEM
transmission line for reasons other than loss to radiation or heating,
and ALL of them go right back to the very basics of what's going on in
an antenna and in a transmission line, and what Maxwell et al were
explaining with all their work.

Cheers,
Tom

Cecil wrote, in a posting for which the Usenet ID is available on
request,

K7ITM wrote:
> Could you please enlighten us, Cecil, exactly why you think that
> anything in all of W8JI's full posting referenced by reference below
> where he implicitly or explicitly says anything at all about a lumped
> model, or about lumped behaviour? After a careful search, I'm unable
> to find it. I only find a discussion of distributed behaviour in a
> circuit which extends beyond near field.

W8JI is right 99% of the time. I agree with him on those
things as do you. Your above posting is no surprise.

Here's one of W8JI's statements. Please defend it.

>W8JI said:

> > Radiation does not cause current taper. Dissipation does not either.

What is contained in the attenuation factor for the current
transmission line equation if not radiation and dissipation?
What else is there?
--
73, Cecil http://www.qsl.net/w5dxp

868. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 19:23:54 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <enT_f.10332$YT1.4162@bgtnsc04-news.ops.worldnet.att.net>
Source record: 61110

Richard Harrison wrote:
> Gene, W4SZ wrote:
> "However, the physical entities do not have two values at once in the
> same time and place."
>
> You can measure each of the two simultaneous constituents with the right
> equipment. A Bird Thruline wattmeter uses a directional coupler to
> separate forward direction power from reverse direction power. These are
> obbtainable at the same time and place anywhere in a 50-ohm coax line.
> Individual volts and amps in each direction are easily calcuable from
> the powers indicated in each direction.
>
> Best regards, Richard Harrison, KB5WZI
>

Richard,

You are in luck! This is Burger King day. Have it your way.

73,
Gene
W4SZ

869. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 19:28:05 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <123o0qjhe6nst99@corp.supernews.com>
Source record: 61111

Gene Fuller wrote:
> David G. Nagel wrote:
>
>>
>> Tom
>>
>> Have you ever sloshed water in a bowl? If you had you would have seen
>> wave forms going in both directions. First the initial wave crosses
>> the bowl then reflects off the side of the bowl and returns in the
>> opposite direction.
>> This is the same as an EMF wave in an antenna. No violation of any
>> principles of conservation, in fact it is demanded of the principle.
>>
>> Dave WD9BDZ
>
>
>
> Dave,
>
> You have highlighted a misconception that is common and a great cause of
> confusion in this forum.
>
> Yes, the "waves" can do what you say. However, the "waves" are merely
> mathematical descriptions of the underlying physical phenomena. There is
> simply no such thing as a "wave" all by itself. Instead there are water
> waves, electromagnetic field waves, guitar string waves, sound waves,
> and so on.
>
> Nature tends to be single valued, at least in the ordinary classical
> world. At any specific point in time and space there is only one value
> of current, one value of electric field, one value for the motion of a
> particle (water molecule, guitar string molecule, etc.), one charge
> density, and so on. These values can and do change with differences in
> time and space. However, the physical entities do not have two values at
> once in the same time and place.
>
> 73,
> Gene
> W4SZ

Now if we can only convince certain other individuals of this maybe we
can get back to something useful, such as how many angles can dance on
the head of a pin.

Dave WD9BDZ

870. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 19:32:24 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <cvT_f.2330$1q4.1248@bgtnsc05-news.ops.worldnet.att.net>
Source record: 61112

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> ... one value for the motion of a particle ...
>
>
> Now I know you are pulling our legs. We are talking about
> *electrons*, Gene, you know that "particle" capable of
> going through two slits at the same time and interferring
> with itself on the other side?
>
> Please pick out just one electron and tell us what is
> its position and velocity.

Cecil,

I think I specifically mentioned the "ordinary classical world", but I'll play along. Why don't you go ahead and measure that electron to prove that it goes through both slits at once? 8-)

871. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 19:39:35 UTC
From: richardharrison@webtv.net
Message-ID: <20544-443C05F7-661@storefull-3253.bay.webtv.net>
Source record: 61113

Gene, W4SZ wroyte:
"However, the physical entities do not have two values at once in the same time and place."

All that is needed to prove energy in the incident and reflected waves each has its own values is to separate the two with a directional coupler as the Bird Thruline wattmeter does. It gives you forward and reverse powers at the same place anywhere you choose along a transmission line. The standard device is calibrated for 50-ohm lines so it is easy to convert the power indicationsw to volts and amps if desired.

Take what Tom, W8JI wrote today:
"I take it you are saying you think current can flow in two directions at the same instant of time in a conductor, can be "lost" from a single conductor through radiation and resistance without a shunting impedance, conservation of chrge isn`t important and Maxwell`s equations are wrong."

Of course, except for Maxwell!

Maxwell`s equations work.

Current can flow in opposite directions past a point.

Shunting impedance makes a voltage divider with series impedance, but that`s not the only way to get a difference between points on a conductor or a coil.

Conservation of charge isn`t an issue with r-f current in a wire or coil.

Tom`s posting is nonsense.

Best regards, Richard Harrison, KB5WZI

872. Re: Grounding Bar Length For Receiving Only Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 19:46:24 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1144784784.419166.221570@j33g2000cwa.googlegroups.com>
Source record: 61114

Hi Bob,

Ground losses aren't extremely important for receiving applications. A few extra feet of depth of ground rod isn't going to make any difference, because the RF doesn't flow 8 feet down, or 5 feet down, but more flows on the surface of the ground and/or some inches down (depending on your ground conductivity profile)

As such, you could try a 4 or 5 foot ground rod.

If you want a no-pounding solution instead, lay down a few radial wires. The length and number aren't critical. Try four or eight wires each 1/8 wavelength long at the lowest frequency of interest.

If the noise in your receiver doesn't increase when you plug the antenna into the RX , then you may want a better ground system. If the noise DOES increase, then your noise floor is that of the natural/artificial noise that your antenna is picking up, and more raw signal from the antenna won't help anything. (Though moving the antenna around might).

73,
Dan
N3OX
www.n3ox.net

873. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 19:48:11 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144784891.274341.118940@z34g2000cwc.googlegroups.com>
Source record: 61115

Cecil, WHAT is your hangup about "lumped-circuit"?? W8JI-Tom, Tom Donaly, Ian White, Roy Lewallen, Gene Fuller, Reg Edwards, I, and others I can think of are NOT, repeat NOT, absolutely NOT, most definitely NOT, talking about a lumped-circuit model. A lumped-circuit model in general does NOT (repeat all the above emphasis) talk about individual charge carriers, and individual charge carriers are NOT required to talk about all the things we've been saying. Egad, man.

I will repeat, Maxwell et al were working to explain the forces acting on charge, and the response of charge to those forces: the motion of charge, the acceleration of charge, the accumulation of charge. Fields, both electric and magnetic, are simply a mathematical and useful way to represent the forces caused by all charges (in motion, accelerated, at rest) on all other charges in the universe. Sometimes fields as developed in classical electrodynamics fail to accurately represent our observed reality, but they are still useful in describing a great many of our everyday observations, and in solving many--essentially all--of our everyday antenna problems.

I won't say it didn't happen at all, but I certainly can't recall in any of these "discussions" getting down to considering individual charged particles. We're dealing with effects accurately represented by charge expressed as a continuum, distributed over space, with abrupt boundaries at the edges of conductors assuming the forces aren't great enough to rip free charge loose from the wires and form corona. We are dealing with quanta in such overwhelmingly great numbers and such small energy per quanta that there's no point in discussing them as quantized charge or photons. No, we're dealing with a linear system that's sufficiently accurately represented by a set of differential equations that all get back eventually to the interaction of a continuous distribution of charge, not a "lumped circuit" OR individual charged particles, which are themselves very different thing, even though we know that our distribution of charge is made up of such particles when viewed on a fine enough scale.

So, PLEASE wake up and quit trying to attribute this "lumped circuit" stuff, and the completely independent charge quantization stuff, to this discussion. It simply is NOT there. It is absolutely NOT the point of all this.

Cheers,
Tom

Cecil wrote in a posting whose Usenet ID is available on request,

K7ITM wrote:
> Understanding the congrence among many methods/theories is a very nice
> thing, for it gives one confidence that they are correct, and the
> ability to apply the one that's most convenient to any particular
> problem. I would not want to take away wave theory, or any other valid
> theory, from you; I would only ask that you better understand that your
> pet is not the ONLY valid explanation.

The point is that in any disagreement between the lumped-circuit
model and a properly applied distributed network model, the
lumped-circuit model loses *EVERY* time since the lumped-circuit
model is a *SUBSET* of the distributed network model.

If your current charge concepts disagree with Maxwell's equations,
Maxwell's equations win *EVERY* time. Maxwell's equations do not
require individual charge carriers. They work just fine considering
only fields in the aether.
--
73, Cecil http://www.qsl.net/w5dxp

874. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 20:00:54 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <WVT_f.67704$Jd.55214@newssvr25.news.prodigy.net>
Source record: 61116

David G. Nagel wrote:
> Tom Donaly wrote:
>
>> Richard Harrison wrote:
>>
>>> Tom, W8JI wrote:
>>> "I take it you are saying you think current can flow two directions at
>>> the same instant of time in a conductor through radiation and resistance
>>> without a shunting impedance, conservation of charge isn`t important,
>>> and Maxwell`s equarions are wrong."
>>>
>>> That`s the wrong take.
>>>
>>> Maxwell works for me even if there is no aether.
>>>
>>> Anntennas work in free space without a ground but it is hard to
>>> duplicate free space conditions at high and lower frequencies here on
>>> earth.
>>>
>>> Every standing-wave antenna has a reflection caused by an impedance
>>> discontinuity at wire`s end. At this point, a reflection begins its
>>> travel back toward the generator. By the time the reflection arrives at
>>> the generator, every point on the wire has current flowing in both
>>> directions simultaneously. No shunting capacitance to earth or anyplace
>>> else is needed to conserve charge. The wire is self-sufficient.
>>>
>>> Radiation resistance is a convenience defined as the resistance which if
>>> placed in series with an antenna would consume the same power that the
>>> antenna is radiating.
>>>
>>> At every point along an antenna with a reflection, current is flowing in
>>> two directions at the same time.
>>>
>>> Best regards, Richard Harrison, KB5WZI
>>
>>
>>
>> Completely wrong, as usual. There is nothing in the natural world
>> that can double itself and go two opposite directions at the same
>> time. In order to do so it would have to violate the principle of
>> the conservaton of charge. At any instant, the charge at a point
>> has to be going either one direction or another which you can
>> confirm using the wave equation which Cecil doesn't understand
>> any more than you do. Superposition is a fine principle, but

>> like any intellectual tool it has to be understood to be used
>> properly.
>> 73,
>> Tom Donaly, KA6RUH
>
>
> Tom
>
> Have you ever sloshed water in a bowl? If you had you would have seen
> wave forms going in both directions. First the initial wave crosses the
> bowl then reflects off the side of the bowl and returns in the opposite
> direction.
> This is the same as an EMF wave in an antenna. No violation of any
> principles of conservation, in fact it is demanded of the principle.
>
> Dave WD9BDZ

Tell me which of the water molecules moved in two opposite directions
at the same time. The waves can move through each other in opposite
directions, but their combined influence is what moves the water
molecules. There are not two separate sets of water molecules that
flow in opposite directions, either. It's the combined total of
forces that causes the movement of both charge and water. Two opposite
movements of either charge or water are impossible.
73,
Tom Donaly, KA6RUH

875. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 20:05:15 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <%ZT_f.67705$Jd.42796@newssvr25.news.prodigy.net>
Source record: 61117

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> There is nothing in the natural world
>> that can double itself and go two opposite directions at the same
>> time.
>
>
> Seems your ignorance also extends to entangled particles?
>
>> In order to do so it would have to violate the principle of
>> the conservaton of charge.
>
>
> This is simply one more example of the seduction of other-
> wise intelligent people by the lumped-circuit model's
> unproven presuppositions.
>
> You are confusing charge with EM wave energy. If two EM light
> waves traveling in opposite directions can cause a standing
> wave in empty space, then so can two RF waves traveling in
> opposite directions in space or around a wire. There is no
> requirement for current at all. Current is a left over
> artifact from the DC model. In fact, it can be proven
> that virtually all of the energy (power) exists solely in
> the two EM waves surrounding the wire and virtually none in
> the conductor. All that is required for standing waves is
> E-fields and H-fields traveling in opposite directions WHETHER
> A WIRE EXISTS OR NOT.
>
> If everyone were using Maxwell's equations instead of flawed
> simplified models, none of this confusion would exist. All
> of the energy is in the waves and none in the current or
> voltage. After all, E x H is the *total power* in a wave.
> There is no extra energy left over to support voltage and
> current.

Cecil, if you knew what you were talking about you might be dangerous.
73,
Tom Donaly, KA6RUH

876. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 20:06:33 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <d%T_f.67706$Jd.39025@newssvr25.news.prodigy.net>
Source record: 61118

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> You still don't get it.
>
>
> And you still haven't posted any technical information
> to contradict the technical information that I am posting.
> One wonders why?

Cecil, when you post some technical information I'll
respond appropriately.
73,
Tom Donaly, KA6RUH

877. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 20:13:41 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <uqGdnZsFcKUWjaHZRVny3g@bt.com>
Source record: 61119

"K7ITM" wrote

>W8JI-Tom, Tom
> Donaly, Ian White, Roy Lewallen, Gene Fuller, Reg Edwards, I, and
> others I can think of are NOT, repeat NOT, absolutely NOT, most
> definitely NOT, talking about a lumped-circuit model.
==========

I do wish you would't take my name in vain about what I might have said or not said. I have in fact said little or nothing about lumped circuits or anything else in this stupid, ridiculous argument. Please don't drag me down to your level.

Reg Edwards.

878. Re: Gamma. Before somebody tells me.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 20:27:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <V5KdnXuCcLHyjKHZRVnyhA@bt.com>
Source record: 61120

Peter, I am very familiar with what happens below 200 Khz.

Most of my transmission line progs cover from power freqs up to UHF.
And they only stop there because of problems with finding room on the
screen for numerical overflow and the programming trouble with
shifting decimal points around.

Very shortly I shall have a program about "Behaviour of Coaxial
Transmission Lines at Low Frequencies. It accepts frequencies in the
range 20 Hz to 5 MHz. Input data is kilo-Hertz in the range 0.02 to
5000. Originally I stopped at 500 KHz.

There's no point in extending frequency range up to 10 GHz because
there is no interest in the subject matter. Although the maths is
already built in. There's just not enough space on the screen.
Programs should be easy to use.

As a program writer yourself you should be familiar with all this.

Reg.
=====================================

"Peter O. Brackett" <none@no-such-domain.nul> wrote in message
news:R_N_f.3192$sq5.239@newsread2.news.atl.earthlink.net...
> Reg et al:
>
> [snip]
> > The reason why both programs stop at 200 KHz has nothing to do
with
> > the foregoing. It is due to skin effect not being fully operative
at
> > lower frequencies which complicates calculations.
> > There are other programs which go down to audio and power
frequencies.
> > ----
> > Reg, G4FGQ
> [snip]
>
> It's a pity that your programs don't work all the way down to DC.
>
> Maxwell's celebrated [I really should say Heaviside's] equations do!
>
> Aside: It is Heaviside's vector formulation of Maxwell's
complicated
> quaternic formulation with which most of we [modern] "electricians"
are most

> familiar.
>
> In fact the common/conventional mathematical formulation of the
reflection
> coefficient rho and its' magnitude gamma as derived from the
> Maxwell/Heaviside equations are indeed valid from "DC to daylight".
>
> Notwithstanding the views of some, there are indeed "reflected
waves" at DC
> and even these "DC reflections" are correctly predicted by the
widely
> accepted and celebrated common/conventional mathematical models of
> electro-magnetic phenomena, formulated by Maxwell and Heaviside.
>
> Reg I assume the reason for your programs failure to give [correct]
answers
> below 200 kHz is because your "quick and dirty" programs do not
utilize full
> mathematical models for skin effect below 200 kHz. As you know,
solving
> Maxwell's equations for analytical solutions of practical problems
is
> fraught with great difficulties and so often numerical techniques
[MoM, FEM,
> etc...] or empirical parametric methods are used.
>
> Most [non-parametric] analytic skin effect models derived from
Maxwell and
> Heaviside's equations [such as those in Ramo and Whinnery] involve
the use
> of "transcendental" functions that although presented in a compact
notation,
> even still do not succumb to "simple" evaluation.
>
> Surely though skin effect is easier to model below 200 kHz where the
effect
> becomes vanishingly smaller? And so I don't understand why your
programs
> cannot provide skin effects below 200 kHz.
>
> If you are interested I can point you to some [lumped model] skin
effect
> models for wires [based upon concentric ring/cylindrical models]
that,
> although parametric and empirical, are very "compact" and easly
evalutate
> and which closely model skin effect, and other secondary effects
such as
> "proximity crowding", up to prescribed frequency limits as set by
the

> "parameters".
>
> These models simply make empirical parametric corrections to the
basic
> R-L-C-G primary parameters by adding a few correction terms.
>
> Thoughts, comments?
>
> --
> Pete k1po
> Indialantic By-the-Sea, FL
>
>
>

879. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 20:36:35 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144787795.664748.325710@z34g2000cwc.googlegroups.com>
Source record: 61121

A bit further to this:

What should I do when I find that Maxwell's equations do NOT accurately describe the observable situation, with observations that can be easily repeated with the same results each time? What should I do about the fact that charge is indeed quantized if I look at it finely enough? What should I do about the fact that radiation is quantized if I look at it finely enough? Maxwell's equations don't account for or allow for those effects, respectively. Yes, I certainly accept Maxwell's equations as adequate to describe what I'm likely to see in any ham antenna I deal with, but at the same time, I realize that they are not the final word. What I WOULD like to get back to here is that all the theory I listed in the posting which precipitated all this, from Maxwell to King and everything in between, all agrees with how charge DOES behave well enough to be very useful. It's those abstractions which have been proposed which do NOT line up with those theories very well at all that I want to weed out. I'm for sure not going to use them, and I'd prefer to educate others to avoid them as well.

For anyone interested in looking them up, I believe it will be found that Maxwell's equations become very uninteresting if there is no charge and no motion of charge. Fields alone don't do it. It's those things--charge and motion of charge--embodied right there in the equations, that result in what we describe as fields around our transmtting antennas: electric, magnetic, and most interesting to us here, electromagnetic. And on the receiving end, it's the motion of charges in response to the fields that produce an interesting result.
Reference:
http://hyperphysics.phy-astr.gsu.edu/Hbase/electric/maxeq.html

Cheers,
Tom

Cecil wrote, in a closing paragraph of a posting whose Usenet ID is available on request,

If your current charge concepts disagree with Maxwell's equations, Maxwell's equations win *EVERY* time. Maxwell's equations do not require individual charge carriers. They work just fine considering only fields in the aether.

880. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 22:11:05 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144793465.690849.152810@g10g2000cwb.googlegroups.com>
Source record: 61122

In a posting with Message-ID:
<1144784891.274341.118940@z34g2000cwc.googlegroups.com>, I wrote, among other things,

"W8JI-Tom, Tom
Donaly, Ian White, Roy Lewallen, Gene Fuller, Reg Edwards, I, and others I can think of are NOT, repeat NOT, absolutely NOT, most definitely NOT, talking about a lumped-circuit model."

Belay that. It is not for me to say what others are talking about. I am sorry if any have taken it the wrong way. Please replace it with the more carefully worded paragraph below.

Cheers,
Tom

I am absolutely certain that I infer from the recent postings in this thread and other related threads that W8JI-Tom, Tom Donaly, Ian White, Roy Lewallen, Gene Fuller, Reg Edwards and others I can think of are NOT, repeat NOT, absolutely NOT, most
definitely NOT, talking about a lumped-circuit model. I know with equal certainty that I have not been, in any of my postings here. If what I have inferred is not what the original authors of those postings intended, I invite them to post whatever they wish to make more clear their intent or to expand on their previous posting(s). Obviously, they don't need my invitation to do so. If any of them does not wish their name associated with this thread, I invite them to quit posting to it and to revoke their earlier posts. Again, they obviously don't need my invitation to do so.

881. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 22:19:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <RXV_f.10276$4L1.5781@newssvr11.news.prodigy.com>
Source record: 61123

Gene Fuller wrote:
> Cecil Moore wrote:
>
>> Gene Fuller wrote:
>>> So you think adding turns to a coil is a nice linear process that
>>> allows you to then subdivide the resonance effects according the
>>> number of turns in each subsection?
>>
>> That appears to me to be the most valid measurement that we
>> can make of the delay through a coil. If you have a better
>> way, please present it.
>
> C'mon, you know as well as anybody that inductance of a coil tends to
> increase as n-squared. Yes, there are all kinds of special cases and
> correction factors.

Increasing the length of a coil or transmission line doesn't
change its velocity factor at a fixed frequency.

> Adding turns and then pretending everything is nice and linear, thereby
> allowing decomposition into subcomponents, is just plain silly.

Velocity factor is *nice* and linear, i.e. it is constant.

Please stop these diversions. I'm sure you are not that ignorant.
--
73, Cecil http://www.qsl.net/w5dxp

882. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 22:35:17 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <FaW_f.10282$4L1.9326@newssvr11.news.prodigy.com>
Source record: 61124

K7ITM wrote:
> So, PLEASE wake up and quit trying to attribute this "lumped circuit"
> stuff, and the completely independent charge quantization stuff, to
> this discussion. It simply is NOT there. It is absolutely NOT the
> point of all this.

I agree so please tell that to everyone who is defending the
lumped circuit presuppositions. One cannot use the presuppositions
of the lumped circuit model to prove those same presuppositions!!!

> If your current charge concepts disagree with Maxwell's equations,
> Maxwell's equations win *EVERY* time. Maxwell's equations do not
> require individual charge carriers. They work just fine considering
> only fields in the aether.

And PLEASE wake up and quit screwing up the attributions on this
newsgroup. You didn't say the above! I said the above. Why do
you deliberately falsify the attributions? Such is illegal in Texas.
--
73, Cecil http://www.qsl.net/w5dxp

883. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 22:37:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <6dW_f.10283$4L1.2628@newssvr11.news.prodigy.com>
Source record: 61125

Tom Donaly wrote:
> Tell me which of the water molecules moved in two opposite directions
> at the same time. The waves can move through each other in opposite
> directions, but their combined influence is what moves the water
> molecules. There are not two separate sets of water molecules that
> flow in opposite directions, either. It's the combined total of
> forces that causes the movement of both charge and water. Two opposite
> movements of either charge or water are impossible.

Nobody is arguing about that so it is obviously just a straw man.
The real question is: Can two EM waves travel in opposite directions
in free space or along a wire. The answer is YES!!! Standing waves
can exist in free space or along a wire. To deny the existence of
standing waves is ridiculous.
--
73, Cecil http://www.qsl.net/w5dxp

884. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 22:39:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zeW_f.10284$4L1.5699@newssvr11.news.prodigy.com>
Source record: 61026

Tom Donaly wrote:
> Cecil, when you post some technical information I'll
> respond appropriately.

Here it is for the 20th time as reported by EZNEC.

http://www.qsl.net/w5dxp/travstnd.GIF
--
73, Cecil http://www.qsl.net/w5dxp

885. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 22:44:03 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <TiW_f.10285$4L1.6342@newssvr11.news.prodigy.com>
Source record: 61027

K7ITM wrote:
> What should I do when I find that Maxwell's equations do NOT accurately
> describe the observable situation, with observations that can be easily
> repeated with the same results each time?

You should find out what is wrong with those observations. Therefore,
you should find out what is wrong with W8JI's and W7EL's measurements.

> If your current charge concepts disagree with Maxwell's equations,
> Maxwell's equations win *EVERY* time. Maxwell's equations do not
> require individual charge carriers. They work just fine considering
> only fields in the aether.

Please cease and desist from attributing my postings to you, Tom.
Such is illegal in Texas and probably also illegal in your state.
--
73, Cecil http://www.qsl.net/w5dxp

886. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 23:43:55 UTC
From: w8ji@akorn.net
Message-ID: <1144799035.064183.9530@v46g2000cwv.googlegroups.com>
Source record: 61028

> Gene, W4SZ wrote:
> "However, the physical entities do not have two values at once in the
> same time and place."

Richard Harrison wrote:
> You can measure each of the two simultaneous constituents with the right
> equipment. A Bird Thruline wattmeter uses a directional coupler to
> separate forward direction power from reverse direction power. These are
> obbtainable at the same time and place anywhere in a 50-ohm coax line.
> Individual volts and amps in each direction are easily calcuable from
> the powers indicated in each direction.

That's not true.

The directional coupler in a Bird meter samples the across vector
(voltage) from a capacitive divider and adds it to a sample voltage of
the through vector (current) from a current transformer in a
predetermined ratio. After that sum, the output is rectified.

I can place it in a system with NO standing waves and it will show
standing waves. I can place it in a system with standing waves and have
it show NO standing waves. It does not measure standing waves, it
simply measures the ratio and phase of voltage and current at one point
in the transmission line.

There can NEVER be current flowing at that point in two directions at
the same instant of time, and the Bird does not even contain a system
that samples standing waves.

Now I can build a piece of test gear that does directly read standing
waves, but it requires a line sampling lwength of at least 1/4 wl.
Such a device would be totally independent of the actual operating
impedance, and could read either current or voltage.

The Bird meter is NOT that type of unit.

73 Tom

887. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 23:57:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0cgo3253n1esg312232rs48dgqgugso9op@4ax.com>
Source record: 61029

Apparently the sentiment

>On Mon, 10 Apr 2006 23:05:48 -0400, "Yuri Blanarovich" <K3BU@optonline.net> wrote:
>>You don't want to explain W5DXP models and answer his questions.

bears no correlation to

>On Tue, 11 Apr 2006 04:08:34 GMT, Cecil Moore <mycall@hotmail.com> wrote:
>>BOTTOM LINE: Until you can prove that a mobile antenna is 90
>>degrees long, your argument is just another straw man.

that is of any significance to "Current across the antenna loading
coil - from scratch"

888. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-11 23:59:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kjgo32ldbuhfupuidsnjkkmgqa59m166da@4ax.com>
Source record: 61030

On Mon, 10 Apr 2006 16:04:56 -0400, Michael Coslo <mjc5@psu.edu>
wrote:

>Not that I could fan the flames any more anyhow, but just what was the
>original discussion about anyhow?

Hmmm, Mike, I bet you didn't find a pony in that pile of "responses"
did you?

73's
Richard Clark, KB7QHC

889. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 00:09:25 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <cZWdnXDNa9wi3qHZnZ2dnUVZ_sOdnZ2d@adelphia.com>
Source record: 61031

Cecil Moore wrote:
> Gene Fuller wrote:
(snip)
>> C'mon, you know as well as anybody that inductance of a coil tends to
>> increase as n-squared. Yes, there are all kinds of special cases and
>> correction factors.
>
>
> Increasing the length of a coil or transmission line doesn't
> change its velocity factor at a fixed frequency.
(snip)

That is an interesting hypothesis.

How would you go about testing its validity?

(Have you heard of end effects?)

890. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 00:13:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <3DX_f.67771$Jd.42885@newssvr25.news.prodigy.net>
Source record: 61032

w8ji@akorn.net wrote:
> I can place it in a system with NO standing waves and it will show
> standing waves. I can place it in a system with standing waves and have
> it show NO standing waves. It does not measure standing waves, it
> simply measures the ratio and phase of voltage and current at one point
> in the transmission line.

Yes, but if it is calibrated for 50 ohms and installed in a 50 ohm
environment, it is indeed accurately reporting forward and reflected
power. It is accurately separating the forward wave energy from the
reflected wave energy. If it weren't, Bird would be guilty of false
advertising.
--
73, Cecil http://www.qsl.net/w5dxp

891. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 00:27:38 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <_PX_f.67778$Jd.47128@newssvr25.news.prodigy.net>
Source record: 61033

John Popelish wrote:

> Cecil Moore wrote:
>> Increasing the length of a coil or transmission line doesn't
>> change its velocity factor at a fixed frequency.
>
> That is an interesting hypothesis.

Since I know you are going to nit-pick that statement, I
probably should add "appreciably" in front of "change". :-)

> How would you go about testing its validity?

The velocity factor of a piece of transmission line doesn't
change appreciably with length. The velocity factor of a
straight wire doesn't change appreciably with length.

I would think that a two wavelength coil would be approximately
twice as long as a one wavelength coil which would be
approximately twice as long as a 1/2 wavelength coil.

The equation for the velocity factor of a coil depends upon:
1. The diameter of the coil
2. The number of turns per unit length
3. The frequency

None of those factors are dependent upon the length of the
coil.

> (Have you heard of end effects?)

Of course, it's the 5% difference between 468/f and
492/f. I'm not talking super accuracy here - just better
accuracy than anyone has yet measured.

It is akin to your suggestion that a coil be installed
between two current nodes and its number of degrees
calculated from that. I will try to take that same
coil that I have been talking about and use your
suggestion to see how close the results are.

However, I am preparing for a 6 state Harley road trip over
the Easter holidays and will not be back until Monday.
--
73, Cecil http://www.qsl.net/w5dxp

892. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 00:38:35 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <mOednZG8GoIL16HZRVn-vQ@adelphia.com>
Source record: 61034

Cecil Moore wrote:
(snip)
> However, I am preparing for a 6 state Harley road trip over
> the Easter holidays and will not be back until Monday.

I envy you. I haven't been on a decent motorcycle ride since my
12,000 mile loop from Virginia to Alaska, and back, in May, 2002.

Kill a few bugs for me.

893. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 01:43:36 UTC
From: richardharrison@webtv.net
Message-ID: <17929-443C5B48-959@storefull-3255.bay.webtv.net>
Source record: 61035

Tom, W8JI wrote:
"The directional coupler in a Bird meter samples the across vector (voltage) from a capacitive divider and adds it to a sample voltage of the through vector (current) from a current transformer in a predetermined ratio.

That`s close. In the cartridges is a loop terminated in a diode. Capacitive coupling of the loop to the center conductor of the precision ccoax supplies the voltage sample. Inductive coupling of the loop supplies the current sample.

I`ve described operation several times here and once in this thread, so I won`t repeat it.

SWR is easy to get from the forward and reflected indications of the wattmeter.

VSWR = 1 + sq.rt. (ref. PWR / for. PWR)
Divided by 1 - sq.rt. (ref. PWR / for. PWR)

Bird supplies a family of VSWR lines on a graph of forward power vs. reflected power for those who would avoid the calculation. They can also supply a slide-rule to do rhe same.

Best regards, Richard Harrison, KB5WZI

894. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 01:57:59 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <H8Z_f.69179$dW3.58935@newssvr21.news.prodigy.com>
Source record: 61036

Reg Edwards wrote:
> "K7ITM" wrote
>
>
>>W8JI-Tom, Tom
>>Donaly, Ian White, Roy Lewallen, Gene Fuller, Reg Edwards, I, and
>>others I can think of are NOT, repeat NOT, absolutely NOT, most
>>definitely NOT, talking about a lumped-circuit model.
>
> ==
>
> I do wish you would't take my name in vain about what I might have
> said or not said. I have in fact said little or nothing about lumped
> circuits or anything else in this stupid, ridiculous argument. Please
> don't drag me down to your level.
> ----
> Reg Edwards.
>
>

If the argument is that ridiculous, why do you continue
to read it?
73,
Tom Donaly, KA6RUH

895. Re: Source cod of program LINE_ZIN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 01:59:43 UTC
From: CW <s@earthlink.net>
Message-ID: <jaZ_f.2410$BS2.567@newsread1.news.pas.earthlink.net>
Source record: 61037

Source cod? There's fish involved? :)

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:-tidnctwIpeFdKjZnZ2dnUVZ8s2dnZ2d@bt.com...
> To satisfy the curiosity of people who may be interested in such
> things, I have made the source code of program LINE_ZIN available from
> my website. Look in the index for "Download Source Code from Here".
>
> You can make what use you like of the information contained therein
> but I don't have the time to provide any assistance or tutorial. And
> don't make any reference to Yours Truly.
>
> It's all free to USA citizens.
>
> Download text file LINE_ZIN.pas from website below.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

896. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 02:15:51 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <2vlo325r080645tk7m23rjbv0tunkm4knb@4ax.com>
Source record: 61038

Responding to no one in particular.

This is starting to make me miss the shorter Fractenna threads.

Phil, comeonback good buddy.

897. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 02:27:08 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <AISdnXzTGqbn-KHZnZ2dnUVZ_sidnZ2d@adelphia.com>
Source record: 61039

Yuri Blanarovich wrote:
> Check my article that describes the controversy, shows some proof of
> reality and then efforts of the "gurus" to deny it and "reason" why
> it can't be so. http://www.k3bu.us/loadingcoils.htm The problem is
> that back in 1953 in QST article there was erroneous
> conclusion/statement made, which propagated through the books, until
> W9UCW measured the current across the loading coils and found that
> there is significant drop from one end to the other, and the rest is
> (ongoing) history

Hmm, certainly it would seem to make sense that:

> The current in a typical loading coil in the shortened antennas drops
> across the coil roughly corresponding to the segment of the radiator
>it replaces.

Quote from your page.

I would not expect anything else. If the loading coil is making the
antenna act like a physically longer antenna, other "qualities" of that
simulation are likely to be similar.

Is there a reason why the coil would *not* do this?

- 73 de Mike KB3EIA -

898. HF discone ?????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 02:34:06 UTC
From: Spock <starbase01@optusnet.com.au>
Message-ID: <443c671f$0$10677$afc38c87@news.optusnet.com.au>
Source record: 61040

Hello Everyone
I saw somewhere that the us navy used on some of it's ships hf discone antennas. Were they any good? are they practical? what are the pros and cons? are they used commercially?

Than you.

---
avast! Antivirus: Outbound message clean.
Virus Database (VPS): 0615-1, 11/04/2006
Tested on: 12/04/2006 12:04:06 PM
avast! - copyright (c) 1988-2005 ALWIL Software.
http://www.avast.com

899. Re: HF discone ?????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 02:52:16 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <4LCdnXfkTNLC9qHZnZ2dnUVZ_tSdnZ2d@comcast.com>
Source record: 61041

USAF MARS Station AIR used one in the 70 & 80s. Broadband, vertically polarized, wire mesh on frame, BIG, BIGGER, REAL BIG!!

Can take a lot of real estate.

Spock wrote:

> Hello Everyone
> I saw somewhere that the us navy used on some of it's ships hf discone
> antennas. Were they any good? are they practical? what are the pros and
> cons? are they used commercially?
>
> Than you.
>
>
>
>
> ---
> avast! Antivirus: Outbound message clean.
> Virus Database (VPS): 0615-1, 11/04/2006
> Tested on: 12/04/2006 12:04:06 PM
> avast! - copyright (c) 1988-2005 ALWIL Software.
> http://www.avast.com
>
>
>

900. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 03:06:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123orli9a52nr5e@corp.supernews.com>
Source record: 61042

Mike Coslo wrote:
> Yuri Blanarovich wrote:
>> Check my article that describes the controversy, shows some proof of
>> reality and then efforts of the "gurus" to deny it and "reason" why
>> it can't be so. http://www.k3bu.us/loadingcoils.htm The problem is
>> that back in 1953 in QST article there was erroneous
>> conclusion/statement made, which propagated through the books, until
>> W9UCW measured the current across the loading coils and found that
>> there is significant drop from one end to the other, and the rest is
>> (ongoing) history
>
> Hmm, certainly it would seem to make sense that:
>
>> The current in a typical loading coil in the shortened antennas drops
>> across the coil roughly corresponding to the segment of the radiator
>> it replaces.
>
> Quote from your page.
>
> I would not expect anything else. If the loading coil is making the
> antenna act like a physically longer antenna, other "qualities" of that
> simulation are likely to be similar.
>
> Is there a reason why the coil would *not* do this?

Yes, many, and they've been discussed here at length. That this concept is wrong can and has been shown by theory, modeling, and measurement. I made and posted measurements on this newsgroup in November 2003 which demonstrated clearly that the presumption is false.

The loading coil isn't making the antenna act like a physically longer antenna. In the extreme case of a physically short inductor at the feedpoint, it's simply modifying the feedpoint impedance and has no effect whatever on the antenna's radiation. As the inductor gets longer, it does become some part of the antenna, but adding an inductor which resonates, say, a 45 degree physical radiator doesn't make the antenna act like a 90 degree physical radiator.

Roy Lewallen, W7EL

901. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 03:24:50 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <123osonj6puofe0@corp.supernews.com>
Source record: 61043

Wes Stewart wrote:
>
> Responding to no one in particular.
>
> This is starting to make me miss the shorter Fractenna threads.
>
> Phil, comeonback good buddy.

They certainly made more sense.

Dave N

902. Re: JOHN CHIPMAN OWNER OF CHIPMAN RELOCATIONS UNITED VAN LINES MAYFLOWER CATON MOVING & STORAGE likes to make many harassing/harassment phone calls

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 03:42:25 UTC
From: studley the bull <studleythebull@aol.com>
Message-ID: <1144813345.585052.29750@t31g2000cwb.googlegroups.com>
Source record: 61044
Cross-posted to: alt.cellular.bluetooth,alt.cellular.attws,alt.cellular.cingular,rec.radio.amateur.antenna,rec.autos.sport.cart

are we having fun yet wrote:
> JOHN CHIPMAN OWNER OF CHIPMAN RELOCATIONS UNITED VAN LINES MAYFLOWER
> CATON MOVING & STORAGE likes to make many harassing/harassment phone
> calls
> JOHN CHIPMAN OWNER OF CHIPMAN UNITED VAN LINES likes
> to make many harassing/harassment phone calls to people and the
> old man sounds like he is off his meds he says my name is
> JOHN CHIPMAN OWNER OF CHIPMAN UNITED VAN LINES
> and i would like to buy you a cup of tea. you can hear the
> many harassing/harassment phone calls he is making from
> 510-337- & 510-337- @ http://tinyurl.com/pe67o
> United Van Lines Agent,Concord, CA 94520
> Chipman Relocations, Alameda, CA 94501
> moving boxes
> California Movers storage
> zoominfo.com

studley

903. Re: HF discone ?????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 04:42:26 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <Ry%_f.385$QP4.6@fed1read12>
Source record: 61045

"Spock" <starbase01@optusnet.com.au> wrote in message
news:443c671f$0$10677$afc38c87@news.optusnet.com.au...
> Hello Everyone
> I saw somewhere that the us navy used on some of it's ships hf discone
> antennas. Were they any good? are they practical? what are the pros and
> cons? are they used commercially?
>
> Than you.

Yes, They were fine. Worked well, practical, but heavy and took up a lot of "real estate" topside. Useful over the freq range 10-30 in most cases. There may be one or two left in the active Navy, but they have mostly been replaced by twin whips. I think USS Belleau Wood (decommissioned October, 2005) still had the discone/cage combination antenna at that time. The USS Missouri Memorial has one.

You need a sturdy center mast to support the cone section which is made of about 25 wires. It's about 25 ft tall. The disk is insulated and sits atop the mast. The advantage is that it's broadbanded. Good VSWR across the band. Not much use for hams, since we just have those little slices of the band. One vertical omni antenna has coverage just like all the other vertical omnis.

So, you might not want to bother, except for the fun of doing it and seeing that it works. I agree, that's reason enough for some, but it will be a lot of effort. ARRL Antenna Book covers it nicely, too, I see.

John, KD6VKW
Combat Systems Tech,
Southwest RMC, San Diego Naval Station

904. Re: vert distortion?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 07:30:09 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97A35757416Bdoldridgsprintca@64.59.135.159>
Source record: 61046

ml <m@di.net> wrote in news:m-48D812.18401710042006@news.verizon.net:

> In article <4s4i329os8b7cjt5ndgtlrk17tl56ouo3s@4ax.com>,
> Wes Stewart <n7ws*@*yahoo.com> wrote:
>
>> On Sun, 09 Apr 2006 13:18:18 GMT, ml <m@di.net> wrote:
>>
>> >hi
>> >
>> >
>> >i've noticed a few installations of say a 2m beam vertically
>> >mounted to a regular metal tv style mast
>> >
>> >from looking at it, you have the mast(metal) going between 2
>> >elements and longer than the elements
>> >
>> >so i was wondering as this is a common mounting style and method
>> >
>> >how bad is the beam pattern for rx and tx ? effected by the metal
>> >mast?
>> >
>> >
>> >
>> >it also got me thinking i've noteced some beams as in the above use
>> >a fiberglass boom while others use metal
>> >
>> >how does this effect patterns and efficiency
>> >
>> >both from a practical point of view and technically speaking
>>
>> The metal mast affects the performance to some degree, but I don't
>> know of a rule of thumb for predicting it. So the answer is, it
>> depends.
>>
>> A fiberglass or other non-metallic mast will help, it you also use a
>> non-metallic coax line.
>>
>>
>>
>> >
>> >
>> >???
>> >
>> >

>> >thanks
>
> thanks for the interesting reply's , i was originally wondering how it
> would negatively effect it, which is my concern and knowing in what
> ways,
>
> but the j pole thing got me sorta thinkn' once i know the downside
> specifics' perhaps i might be able to turn it into a good thing??

If you use a J-pole as the driven element of a yagi, it will not distort the pattern much at all. You can fasten the J-pole to the yagi boom 1/4 wave from the top of the J-pole and still excite it from the stub.

But being in a yagi will change the impedance of the J-pole so you will have to match it IN the yagi.

Another solution is to stack two smaller yagis side by side away from the mast.

There will still be distortion but these techniques can lessen it considerably.

--
Dave Oldridge+
ICQ 1800667
VA7CZ

905. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 07:34:52 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <RI6jVhEc2KPEFADQ@ifwtech.co.uk>
Source record: 61047

Richard Harrison wrote:
>Tom, W8JI wrote:
>"The directional coupler in a Bird meter samples the across vector
>(voltage) from a capacitive divider and adds it to a sample voltage of
>the through vector (current) from a current transformer in a
>predetermined ratio.
>
>That`s close. In the cartridges is a loop terminated in a diode.
>Capacitive coupling of the loop to the center conductor of the precision
>ccoax supplies the voltage sample. Inductive coupling of the loop
>supplies the current sample.
>
>I`ve described operation several times here and once in this thread, so
>I won`t repeat it.
>

We're all agreed on what happens with the Bird's sampling lines and detector. The only differences arise from each person's attempt to condense it all into a couple of sentences, and aren't worth arguing about.

But Richard cuts it too short when he claims that:
>>A Bird Thruline wattmeter uses a directional coupler to separate
>>forward direction power from reverse direction power.

That claim confuses two different things: what the line-loop-detector hardware physically *does*; and what the indicated results *mean*. The first of these is agreed; the second is not.

The disagreement is entirely about the interpretation - in other words, it's about the theory about standing and travelling waves. Richard habitually misses out this step, which makes it look as if the Bird wattmeter "proves" the physical existence of forward and reverse travelling waves of power.

It doesn't. Everything that you see printed on the Bird's meter scale, and in the Bird literature, represents that company's particular interpretation of theory about waves on transmission lines. The details of that theory are *not* agreed within this newsgroup, which means that - to some people - the two halves of Richard's claim do not join up.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

906. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 08:32:14 UTC
From: w8ji@akorn.net
Message-ID: <1144830734.559464.67410@u72g2000cwu.googlegroups.com>
Source record: 61048

Mike Coslo wrote:

> Yuri Blanarovich wrote:
> > The current in a typical loading coil in the shortened antennas drops
> > across the coil roughly corresponding to the segment of the radiator
> >it replaces.
>
> Quote from your page.
>
> I would not expect anything else. If the loading coil is making the
> antenna act like a physically longer antenna, other "qualities" of that
> simulation are likely to be similar.
>
> Is there a reason why the coil would *not* do this?
> - 73 de Mike KB3EIA -

Every reason in the world. This misconception is EXACTLY what started this whole thing years ago.

The loading coil doesn't "replace" missing electrical degrees, it primarily corrects power factor by compensating reactance. Anything else is generally secondary, and is related to flaws in the system rather than something necessary.

That idea repeats one of the worse myths about loading coils.

The truth is the loading inductor almost never has the same phase shift in current as the missing antenna area it replaces, and it almost never has the same "current drop". "Current drop" isn't even a good English description of what happens in any circuit.

I can have an antenna of given dimensions with a loading coil at one fixed spot. The difference in current flowing into one end and out the other can go all over the place, depending only on the coil's physical design wity the antenna resonant on the same frequency. This happens ONLY by changing the coil.

If I had a coil that was compact and not against the groundplane with low stray capacitance compared to the antenna area above the coil, current difference between each terminal or through the coil could be immeasurable with reasonably good instrumentation. Phase shift in current could also be nearly zero. None of this would be anywhere near the area the coil replaces.

Without any change in anything except the coil, I could change all that. If I replaced the coil with a long stub or very large single turn, it would indeed act more like the antenna area it "replaces". The

reason for this is the coil's capacitance to ground and capacitance to space around the antenna, NOT the electrical degrees it replaces and certainly not the standing waves. This all can and has been proven over and over again. The very few people offering the long drawn out arguments against this really are violating basic electrical laws of how systems really work, and enforcing the myth that a loading coil is so many electrical degrees long or that displacement currents are not at work and current magically vanishes, or magically flows two directions at the same time at one point in a conductor.

A few people have taken the model of standing waves, not understood the limits or boundary conditions of that model, and thought it to be an actual literal description of what really is happening. They appear to actually think current can flow two directions at the same time at the same point. They somehow thing we can have charge drift velocity in two directions at the same instant of time at one point in a conductor, or that current can just vanish into thin air without actually being diverted through a second path.

A few people have violated the rules of charge conservation, charge movement, and misapplied the concept of standing waves, but the single largest error is standing behind the myth or misconception that that loading coil somehow acts like the "missing area of antenna".

73 Tom

907. Comet CA-2x4SR

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 08:53:21 UTC
From: "Mike M." <notme@invalid.email.net>
Message-ID: <q0fp32dhb1s6afufc4v71fb76joral69bn@4ax.com>
Source record: 61049

I have a Comet CA-2x4SR 2m/70cm mobile antenna on a trunk lid mount. Comet tells me this is a "ground independent" antenna, so I've been thinking about adding a short mast to get it above the cars roof line. Will I gain or lose anything by raising the antenna above the ground plane?

I'm hoping raising it would give a more circular pattern by getting it above the roof line and above the 150/450 MHz scanner antenna mounted on the other side of the trunk.

908. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 11:26:25 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144841185.770853.143110@i40g2000cwc.googlegroups.com>
Source record: 61050

#include Message-ID: <TiW_f.10285$4L1.6342@newssvr11.news.prodigy.com>;
#include Message-ID: <FaW_f.10282$4L1.9326@newssvr11.news.prodigy.com>;
#include Message-ID:
<1144787795.664748.325710@z34g2000cwc.googlegroups.com>;
#include Message-ID:
<1144784891.274341.118940@z34g2000cwc.googlegroups.com>;

Hey, Cecil,

In your two messages included above by reference, you complained that I had in the other two included messages put things you had written, but that I did not properly attribute them to you. I don't know whether to be offended, feel sorry for you, or laugh. In each of my two messages, immediately following my signature, is a line that begins, "Cecil wrote..." I trust it's not too difficult for most folk to understand, but I'll explain it for you. That line means that YOU wrote the stuff that follows that line, not me. In general, I would absolutely NOT want anyone to think I'd written anything you wrote! Guess I'm inclined to feel a bit of the second, and do some of the third.

The rest of what you wrote in the included messages isn't worth worrying about. It's taken badly out of context (surprise), and doesn't say anything new in any event.

Cheers,
Tom

909. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 12:50:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ZH6%f.46456$_S7.23573@newssvr14.news.prodigy.com>
Source record: 61051

Roy Lewallen wrote:
> Yes, many, and they've been discussed here at length. That this concept
> is wrong can and has been shown by theory, modeling, and measurement. I
> made and posted measurements on this newsgroup in November 2003 which
> demonstrated clearly that the presumption is false.

By now, even you know that standing wave current phase is
fixed and unchanging and that those delay measurements of yours
are invalid whether made on a wire or on a coil.

> The loading coil isn't making the antenna act like a physically longer
> antenna.

Of course not! The loading coil is making the antenna act
like an electrically longer antenna by adding a phase
shift through the coil. The electrical lengthening is
what resonates the antenna feedpoint to a pure resistance.

> In the extreme case of a physically short inductor at the
> feedpoint, it's simply modifying the feedpoint impedance and has no
> effect whatever on the antenna's radiation.

Nobody has ever said it affected the antenna's radiation so
that has been and is still just a straw man.

> As the inductor gets longer,
> it does become some part of the antenna, but adding an inductor which
> resonates, say, a 45 degree physical radiator doesn't make the antenna
> act like a 90 degree physical radiator.

Of course not and nobody has ever said it does. It increases
the electrical length and brings the forward and reflected
waves into phase with each other. That's why the the feedpoint
impedance is resistive.
--
73, Cecil http://www.qsl.net/w5dxp

910. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 13:02:22 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <yT6%f.46457$_S7.36254@newssvr14.news.prodigy.com>
Source record: 61052

Ian White GM3SEK wrote:
> The disagreement is entirely about the interpretation - in other words,
> it's about the theory about standing and travelling waves. Richard
> habitually misses out this step, which makes it look as if the Bird
> wattmeter "proves" the physical existence of forward and reverse
> travelling waves of power.

Those are traveling waves of *EM energy* where the power is indicated
at a point as the energy flows through that point. Assuming Z0=50 ohms,
the Bird indicates the number of joules per second flowing toward the
load when the slug is in the forward position. Turning the slug around
causes the Bird to indicate the number of joules per second flowing
toward the source.

The only way to have standing waves of EM energy in a transmission
line is to have two EM waves flowing in opposite directions. I have
asked you before to explain how standing waves develop without the
existence of a forward traveling wave and a rearward traveling wave.
Your silence on that subject has been conspicuous by its absence.
Do standing waves appear by magic?

> It doesn't. Everything that you see printed on the Bird's meter scale,
> and in the Bird literature, represents that company's particular
> interpretation of theory about waves on transmission lines. The details
> of that theory are *not* agreed within this newsgroup, which means that
> - to some people - the two halves of Richard's claim do not join up.

Are you asserting that Bird is engaging in false advertising?
--
73, Cecil http://www.qsl.net/w5dxp

911. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 13:27:03 UTC
From: chuck <nospam@nospam.net>
Message-ID: <He7%f.3653$sq5.392@newsread2.news.atl.earthlink.net>
Source record: 61053

Ian White GM3SEK wrote:
[SNIP]
>
> The disagreement is entirely about the interpretation - in other words,
> it's about the theory about standing and travelling waves. Richard
> habitually misses out this step, which makes it look as if the Bird
> wattmeter "proves" the physical existence of forward and reverse
> travelling waves of power.
>
> It doesn't. Everything that you see printed on the Bird's meter scale,
> and in the Bird literature, represents that company's particular
> interpretation of theory about waves on transmission lines. The details
> of that theory are *not* agreed within this newsgroup, which means that
> - to some people - the two halves of Richard's claim do not join up.
>

Ian, I've not detected this particular disagreement about waves on
transmission lines in the group. I would be most grateful to see a brief
statement of where and how Bird's interpretation of theory is found infirm.

73,

Chuck NT3G

912. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 13:33:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <tk7%f.67869$Jd.4655@newssvr25.news.prodigy.net>
Source record: 61054

w8ji@akorn.net wrote:
> The loading coil doesn't "replace" missing electrical degrees, it
> primarily corrects power factor by compensating reactance.

If correcting the power factor didn't cause a phase shift, the
power factor wouldn't change but we know it does. That phase
shift is exactly what we are talking about. The coil shifts
the phase of both the forward wave and reflected wave thus
furnishing some much needed electrical degrees in order to
resonate the antenna by bringing the phasor sum of the forward
and reflected voltages into phase with the phasor sum of the
forward and reflected currents.

Any power engineering textbook will tell you what happens to the
phase when the power factor is corrected. Hint: If the phase
stayed the same, as you assert, nothing would change. But we
know that correcting the power factor changes the phase. That's
exactly what correcting the power factor is all about.

> The truth is the loading inductor almost never has the same phase shift
> in current as the missing antenna area it replaces, and it almost never
> has the same "current drop".

The inductor does indeed
contribute a phase shift that is not zero. In a one wavelength
system, the coil can just as easily contribute a current RISE
as a current DROP. That fact alone is reason to drop the flawed
model. Current cannot be created in a coil by sucking it out of
earth ground which is what your theory have us believe. But of
course, you have refused to discuss the subject.

> I can have an antenna of given dimensions with a loading coil at one
> fixed spot. The difference in current flowing into one end and out the
> other can go all over the place, depending only on the coil's physical
> design wity the antenna resonant on the same frequency. This happens
> ONLY by changing the coil.

Of course, but that is beside the point. Every real world inductor does
contribute its own unique phase shift and its own unique current change,
rise, fall, or equal at current nodes and antinodes. You have absolutely
refused to discuss that current rise. One wonders why.

> If I had a coil that was compact and not against the groundplane with
> low stray capacitance compared to the antenna area above the coil,
> current difference between each terminal or through the coil could be
> immeasurable with reasonably good instrumentation. Phase shift in

> current could also be nearly zero. None of this would be anywhere near
> the area the coil replaces.

Resorting to a specially designed coil completely different from
anything used in the real world has been your specialty. If your
theory only works for only one special case and is not valid for
the general case, it's time to junk that theory.

After failing a dozen times to achieve equal current at both ends
of numerous coils, you finally declared victory using a small
toroidal coil. Uhhhh Tom, one out of twelve doesn't prove much.
I have shown you how to achieve equal current with any coil. It
just depends upon where the coil is placed in the standing wave
environment.

> A few people have violated the rules of charge conservation, charge
> movement, and misapplied the concept of standing waves, but the single
> largest error is standing behind the myth or misconception that that
> loading coil somehow acts like the "missing area of antenna".

The coil's function is to bring the forward and reflected waves
into phase so the feedpoint impedance will be purely resistive.
It cannot do that if it has no effect on phase. Your theory
is full of holes.

The coil affects the electrical length of the antenna, not the
physical length. Nobody has ever said it replaces the missing
physical length of the antenna. Your implication is that same
tired old straw man riding that same old dead horse.

Please stop trying to twist what we are saying and fix the
twist in your own misconceptions. For instance, how does your
theory handle a current rise through a coil as illustrated at:

http://www.qsl.net/w5dxp/test316.GIF

in the right hand part of the graphic. Why do you refuse to
discuss this current RISE?
--
73, Cecil http://www.qsl.net/w5dxp

913. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 13:39:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <cq7%f.67870$Jd.10486@newssvr25.news.prodigy.net>
Source record: 61055

K7ITM wrote:
> In your two messages included above by reference, you complained that I
> had in the other two included messages put things you had written, but
> that I did not properly attribute them to you. I don't know whether to
> be offended, feel sorry for you, or laugh. In each of my two messages,
> immediately following my signature, is a line that begins, "Cecil
> wrote..." I trust it's not too difficult for most folk to understand,
> but I'll explain it for you. That line means that YOU wrote the stuff
> that follows that line, not me. In general, I would absolutely NOT
> want anyone to think I'd written anything you wrote! Guess I'm
> inclined to feel a bit of the second, and do some of the third.

You are doing the "Cecil wrote" in the wrong way and falsifying
attributions in the process. If you want to be known as the
netnews guy who falsifies attributions, that is your business.

What I am officially asking you to do is to cease and desist
falsifying the attributions associated with my postings.
--
73, Cecil http://www.qsl.net/w5dxp

914. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 14:08:15 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <tR7%f.30$Ok5.11@fe08.lga>
Source record: 61056

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:123orli9a52nr5e@corp.supernews.com...
> Mike Coslo wrote:
>> Yuri Blanarovich wrote:
>>> Check my article that describes the controversy, shows some proof of
>>> reality and then efforts of the "gurus" to deny it and "reason" why
>>> it can't be so. http://www.k3bu.us/loadingcoils.htm The problem is
>>> that back in 1953 in QST article there was erroneous
>>> conclusion/statement made, which propagated through the books, until
>>> W9UCW measured the current across the loading coils and found that
>>> there is significant drop from one end to the other, and the rest is
>>> (ongoing) history
>>
>> Hmm, certainly it would seem to make sense that:
>>
>>> The current in a typical loading coil in the shortened antennas drops
>>> across the coil roughly corresponding to the segment of the radiator
>>> it replaces.
>>
>> Quote from your page.
>>
>> I would not expect anything else. If the loading coil is making the
>> antenna act like a physically longer antenna, other "qualities" of that
>> simulation are likely to be similar.
>>
>> Is there a reason why the coil would *not* do this?
>
> Yes, many, and they've been discussed here at length. That this concept is
> wrong can and has been shown by theory, modeling, and measurement. I made
> and posted measurements on this newsgroup in November 2003 which
> demonstrated clearly that the presumption is false.
>
> The loading coil isn't making the antenna act like a physically longer
> antenna. In the extreme case of a physically short inductor at the
> feedpoint, it's simply modifying the feedpoint impedance and has no effect
> whatever on the antenna's radiation. As the inductor gets longer, it does
> become some part of the antenna, but adding an inductor which resonates,
> say, a 45 degree physical radiator doesn't make the antenna act like a 90
> degree physical radiator.
>
> Roy Lewallen, W7EL

Oooops, carefull here.
As far as I know, nobody has claimed that inserted loading coil replaces the

"missing" degrees of the radiator in terms of providing magical properties that would look like that "replaced" portion of the antenna, or make the antenna act like 90 degree full size physical radiator.
What we are saying that the loading coil appears to replace "missing" electrical degrees of the radiator in order to make it resonant, that is back to 90 electrical degrees (has to be in order to resonant), which rest of the existing "straight" radiator forces it to do (+/-). Radiation properties and efficiency of the loaded antenna is proportional to the area under the current curve. It is obvious to anyone comparing the area under the current curve of full size quarter wave radiator vs. loaded radiator that there is huge difference in area under the curve and performance, efficiency, which is known and been verified by numerous measurements.
HOW the current curve is modified by different loadings and position along the radiator is important in knowing how the current distribution curve along the radiator is modified.
The whole controversy is that "gurus" claim current doesn't drop across the coil, while we say that it does, therefore making the area under current curve above the coil smaller and effciency of loaded antenna worse than they believe and insist on.
Again, when applied in modeling programs, wrong assumption will produce erroneous results, which will be magnified in multielement antenna designs.
So the "gurus" basically ignore behavior of coil in the standing wave environment along the loaded radiator, where the current drops from max at base to zero at the tip, but coil would magicaly resist that, because, bla, bla, bla.... (see their "reasons")
So while everyone knows (?) that standing wave current drops acros (along) the wire (all the antenna books show that), but it is "impossible" to drop along the coiled wire (real inductance - coil, loading stub). Reality and measurments prove that, but according to them "it can't be so".

I am already gathering necessary hardware to do more experiments, measurements to show what is really happening, and will prepare articles how to model and apply it to antenna design.
I would challenge the "unbelievers" to join me and repeat the tests, to see wasaaaap.

73 Yuri, K3BU

915. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 15:25:44 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <YZ8%f.58408$F_3.42992@newssvr29.news.prodigy.net>
Source record: 61057

Yuri Blanarovich wrote:
> What we are saying that the loading coil appears to replace "missing"
> electrical degrees of the radiator in order to make it resonant, ...

W8JI says we are correcting the power factor. Every EE knows that
correcting the power factor involves shifting the phase, i.e.
the coil cannot correct the power factor without providing a phase
shift.

> The whole controversy is that "gurus" claim current doesn't drop across the
> coil, while we say that it does, ...

That context is specifically inductively loaded mobile antennas
where the current decreases from source to tip of the antenna,
true for all electrical 1/4WL monopoles.

For other antennas, the current may DROP, the current may RISE,
or the current may STAY THE SAME magnitude depending upon where
the coil is installed in the standing wave system. In particular,
none of the "gurus" has even attempted to explain the RISE IN
CURRENT through the coil in the right hand system at:

http://www.qsl.net/w5dxp/test316.GIF

There have been about 10 examples proving the "gurus" wrong and
they simply chose to ignore those examples. They complain that
those examples are biased toward technical correctness. I say,
YES, THEY ARE. AREN'T THEY SUPPOSED TO BE TECHNICALLY CORRECT?
--
73, Cecil http://www.qsl.net/w5dxp

916. Improving FM in building

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 15:28:23 UTC
From: amdx <amdx@worldnet.att.net>
Message-ID: <2bf27$443d1c89$45011502$10556@KNOLOGY.NET>
Source record: 61058

The health club I belong to has poor FM reception inside the building.
I'm trying to get them to improve it. The thought I have is to install
an outside omni antenna and connect it to an inside identical antenna
hanging down from the ceiling.
Is this a workable idea?
Does anyone have info to help make the improvements?

Thanks
Mike
PS---This is for all the personal FM radios worn by the exercisers.

917. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 15:32:22 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <racd6IXG2RPEFA2W@ifwtech.co.uk>
Source record: 61059

chuck wrote:
>Ian White GM3SEK wrote:
>[SNIP]
>> The disagreement is entirely about the interpretation - in other
>>words, it's about the theory about standing and travelling waves.
>>Richard habitually misses out this step, which makes it look as if
>>the Bird wattmeter "proves" the physical existence of forward and
>>reverse travelling waves of power.
>> It doesn't. Everything that you see printed on the Bird's meter
>>scale, and in the Bird literature, represents that company's
>>particular interpretation of theory about waves on transmission lines.
>>details of that theory are *not* agreed within this newsgroup, which
>>means that - to some people - the two halves of Richard's claim do
>>not join up.
>>
>
>Ian, I've not detected this particular disagreement about waves on
>transmission lines in the group. I would be most grateful to see a
>brief statement of where and how Bird's interpretation of theory is
>found infirm.

The Bird 43 has only one scale calibration: power. Readings on that scale represent the power delivered to a 50-ohm load when the sensor is turned to the forward direction. However, the instrument internally senses only the voltage and current on the line. The "power" reading is only a calibration, and is only completely meaningful when you use the instrument in the same circumstances as when it was calibrated.

Now what happens if the load is not exactly 50 ohms? What happens when you turn the sensor around? You then get some new and different readings which have to be called "forward power" and "reflected power" - because "power" is the only thing the Bird's meter scale is calibrated to indicate.

The Bird Corporation's Application Note "Straight Talk About Directivity" discusses the meaning of "forward and reflected power" indications with a mismatched load. That document does not directly address your question, Chuck, but takes the subject to a further level of detail about the accuracy of the real-life instrument, and its limited ability to discriminate between forward and reflected waves.
http://www.bird-electronic.com/app_notes/StraightTalkAboutDirectivity.pdf

One notable thing about "Straight Talk" is how all the calculations begin by taking the square root of the power indications. In other words, all the relative RF power indications from the meter scale are

converted into relative RF voltages, and all the real calculations are done on the voltages.

Another interesting observation is that if you have a mismatched load, such that the meter indicates say 93W with the arrow on the sensor pointing forward and say 23W with the sensor rotated 180deg, then you would find that 70W is being delivered into the resistive part of the mismatched load impedance (assuming perfect directivity and no errors of any other kind).

There are two schools of thought about the physical meaning of all this.

One is that if the meter scale says "power", then there genuinely are forward and reflected traveling waves of power on the line. In the "93 - 23 = 70W" example, the belief is that there genuinely is a power flow of 93W towards the load, only 70W of which is accepted and 23W is returned.

The other school of thought is that that's not true. The meter may *read* more "forward power" than is actually being delivered to the load, but that is a false indication because the instrument is not being used in the situation for which the power scale was calibrated. Therefore it is not to be taken at face value - and above all, the letter "W" on the meter scale does not prove the physical existence of forward and reflected waves of power.

Every detail about a Bird 43 or similar "directional wattmeter" can be explained quite simply in terms of travelling waves of voltage and current. And I do mean every detail - including why a meter that happens to have been calibrated in "power" will read as it does.

The classic explanation was by Warren Bruene, W5OLY, of the Collins company. He invented the familiar "Bruene bridge" directional coupler which samples current through a toroidal transformer, and voltage by a voltage divider. The principle of the Bird 43 is the same, but the two separate sampling functions are easier to see in the Bruene bridge.

After a previous incarnation of this debate in 2002, I wrote a 2-page article which summarised Bruene's original article (from QST, April 1959) and explained the crossover to the Bird sampling technique: http://www.ifwtech.co.uk/g3sek/in-prac/best-of.htm#bruene

An equally good explanation of those same meter readings can be constructed by regarding the Bruene "bridge" literally as an impedance bridge. There is no inconsistency between the two approaches - they are just two different viewpoints looking at the same reality.

On the other hand, we have yet to see an explanation in equivalent physical detail that is based entirely and exclusively on the viewpoint of travelling waves of power (with no borrowing from explanations based on voltage and current).

I am not blaming the Bird Corporation for any of these misunderstandings. They are simply telling users how to work with the

available "power" markings on the meter scale. The problem is when some users take them too literally.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

918. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 16:08:50 UTC
From: richardharrison@webtv.net
Message-ID: <3988-443D2612-839@storefull-3256.bay.webtv.net>
Source record: 61062

Ian White, GM3SEK wrote:
"---it`s about the theory about standing waves and traveling waves."

Bird is congruent with Terman. Both have been around for a long time and the theory works.

Reverse engineer the Bird. The critical step is adjusting the two samples for equality so that the 180-degree phase shift reflection causes produces cancellation in one direction of pickup so that the samples from the other direction can be measured.

Best regards, Richard Harrison, KB5WZI

919. Re: Improving FM in building

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 16:09:22 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1144858162.935757.60290@z34g2000cwc.googlegroups.com>
Source record: 61060

It might work OK, especially if the building is really sealed tight to RF.

You may want to add a cheap FM preamp with the outside antenna connected to the input and the inside antenna connected to the output, so that the connection between the antennas has a tad of gain, rather than just loss.

Dan
N3OX

920. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 16:11:20 UTC
From: chuck <nospam@nospam.net>
Message-ID: <IE9%f.3357$Es3.3150@newsread3.news.atl.earthlink.net>
Source record: 61061

Thank you, Ian, for the quick and thorough reply! I look forward to reading both papers.

73,

Chuck NT3G

921. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 16:26:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <heaq32515bqmlk6gd2r2ofrqfovaokpdpn@4ax.com>
Source record: 61063

On Wed, 12 Apr 2006 16:32:22 +0100, Ian White GM3SEK
<gm3sek@ifwtech.co.uk> wrote:

>On the other hand, we have yet to see an explanation in equivalent
>physical detail that is based entirely and exclusively on the viewpoint
>of travelling waves of power (with no borrowing from explanations based
>on voltage and current).

Now Ian,

That is like asking us to explain a speedometer without recourse to
the units for distance and time.

73's
Richard Clark, KB7QHC

922. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 16:38:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1maq3252cpr16bin8clmchfm4bmaa04ogb@4ax.com>
Source record: 61065

On Wed, 12 Apr 2006 16:32:22 +0100, Ian White GM3SEK
<gm3sek@ifwtech.co.uk> wrote:

>One is that if the meter scale says "power", then there genuinely are
>forward and reflected traveling waves of power on the line. In the "93 -
>23 = 70W" example, the belief is that there genuinely is a power flow of
>93W towards the load, only 70W of which is accepted and 23W is returned.
>
>The other school of thought is that that's not true. The meter may
>*read* more "forward power" than is actually being delivered to the
>load, but that is a false indication because the instrument is not being
>used in the situation for which the power scale was calibrated.
>Therefore it is not to be taken at face value - and above all, the
>letter "W" on the meter scale does not prove the physical existence of
>forward and reflected waves of power.

Hi Ian,

This argument sets up the first school for failure that is already
admitted to. Your statement from the second school that:
>*read* more "forward power" than is actually being delivered to the
>load, but that is a false indication
is already admitted to explicitly from the first school:
>93W towards the load, only 70W of which is accepted and 23W is returned.
in that the 70W NOT 93W is the correct indication.

The "second" school has nothing to offer on the subject. The
"because" that attends their "discovery" of this error is specious
logic.

The fact remains that when you subtract 23W from the 93W you do find
70W in the load. The second school would have us believe none of the
numbers correlate to power, and yet the results bear out just the
opposite every day.

The second school needs to stay after class.

73's
Richard Clark, KB7QHC

923. Re: Improving FM in building

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 16:41:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fabq32h6rfqvuud91o7fp4j7elf2rubaut@4ax.com>
Source record: 61066

On Wed, 12 Apr 2006 10:28:23 -0500, "amdx" <amdx@worldnet.att.net>
wrote:

>The health club I belong to has poor FM reception inside the building.
>I'm trying to get them to improve it. The thought I have is to install
>an outside omni antenna and connect it to an inside identical antenna
>hanging down from the ceiling.
> Is this a workable idea?
>Does anyone have info to help make the improvements?
>
> Thanks
> Mike
>PS---This is for all the personal FM radios worn by the exercisers.

Hi Mike,

Your idea is a necessary step in any solution. As it is the cheapest,
try it first and you may need to go no further. It has a high
likelihood of achieving what you want.

73's
Richard Clark, KB7QHC

924. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 16:43:30 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <bLednTkD28QhsaDZnZ2dnUVZ_sCdnZ2d@adelphia.com>
Source record: 61064

Cecil Moore wrote:
(snip)
> W8JI says we are correcting the power factor. Every EE knows that
> correcting the power factor involves shifting the phase, i.e.
> the coil cannot correct the power factor without providing a phase
> shift.

Power factor correction shifts the relative phase of current with respect to voltage. When talking about a phase shift, you have to be careful to say what is being shifted relative to what else. There are lots of possibilities.

A series inductor (a non real, ideal one) with absolutely no phase shift or magnitude change in the current from one end to the other, still produces a phase shift of input voltage to output voltage, so the relative phase of voltage to current at the input is different compared to the relative phase of voltage to current at the output. I think this is the power factor correction effect W8JI is referring to.

Any real inductor does this, and also does some other things.

925. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 16:49:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Uca%f.15271$tN3.15125@newssvr27.news.prodigy.net>
Source record: 61067

Ian White GM3SEK wrote:
> Now what happens if the load is not exactly 50 ohms?

If the feedline is 50 ohms, what happens is reflected
energy that is easily visible using a TDR, time domain
reflectometer.

> One is that if the meter scale says "power", then there genuinely are
> forward and reflected traveling waves of power on the line. In the "93 -
> 23 = 70W" example, the belief is that there genuinely is a power flow of
> 93W towards the load, only 70W of which is accepted and 23W is returned.

One correction. The Bird wattmeter is installed at a point
on the transmission line and it measures the power at that
point. What is traveling is the energy. Power is the number
of joules per second passing a fixed point. "Power flow" is
somewhat of a misnomer.

> The other school of thought is that that's not true. The meter may
> *read* more "forward power" than is actually being delivered to the
> load, but that is a false indication because the instrument is not being
> used in the situation for which the power scale was calibrated.

It certainly is being used in the situation for which it was
calibrated if the Z0 of the transmission line is 50 ohms.

> On the other hand, we have yet to see an explanation in equivalent
> physical detail that is based entirely and exclusively on the viewpoint
> of travelling waves of power ...

Please give up on your misconception. Those are traveling waves
of *ENERGY*. Power is what is measured when traveling energy passes
a fixed point. Perhaps that is your whole point of confusion.
--
73, Cecil http://www.qsl.net/w5dxp

926. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 16:55:10 UTC
From: richardharrison@webtv.net
Message-ID: <25827-443D30EE-864@storefull-3257.bay.webtv.net>
Source record: 61068

Cecil, W5DXP wrote:
"Any power engineering handbook will tell you what happens to the phase when the power factor is corrected."

Most industrial loads have a lagging power factor. They represent an inductive reactance in addition to their resistive loads. Extra energy must be generated and transmitted just to charge this inductance which does no work but demands current. Extra loss comes from this reactive load. This is eliminated by tuning the inductance out with a capacitive reactance at the load. This is often an overexcited synchronous motor. When the motor has no mechanical load it is often called a "synchronous capacitor".

An antenna needs zero reactance too if it is to accept maximum energy and not make standing waves. Reactance impedes energy to the antenna. Reactive current also increases loss in the transmission line as it does in the case of the power utility frequency. So j0 is a goal in many instances.

Best regards, Richard Harrison, KB5WZI

927. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 17:17:57 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9Da%f.15280$tN3.4201@newssvr27.news.prodigy.net>
Source record: 61069

Richard Harrison wrote:

> Cecil, W5DXP wrote:
> "Any power engineering handbook will tell you what happens to the phase
> when the power factor is corrected."
>
> Most industrial loads have a lagging power factor. They represent an
> inductive reactance in addition to their resistive loads. Extra energy
> must be generated and transmitted just to charge this inductance which
> does no work but demands current. Extra loss comes from this reactive
> load. This is eliminated by tuning the inductance out with a capacitive
> reactance at the load.

Yet W8JI would have us believe that power factor correcting capacitor functions faster than the speed of light, making an instantaneous phase correction. Sorry, the real world doesn't work that way.

The bottom line is that we cannot shift phase without delaying something, either voltage or current. Contrary to the presuppositions of the lumped-circuit model, neither voltage nor current can travel faster than the speed of light. That means that any phase shifting of the relative phase angle difference down to zero results in a delay.

I have seen it explained as "apparently" traveling faster than light. That's just one more patch on an already flawed mode.
--
73, Cecil http://www.qsl.net/w5dxp

928. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 17:24:03 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144862643.496243.251990@t31g2000cwb.googlegroups.com>
Source record: 61070

Yes, well, thank you _very_ much indeed, Cecil, for this further
insight into the workings of your mind.

Cheers,
Tom

(In the event that your newsreader is unable to follow threads
directly, please see the header of this message for references to the
message(s) to which it replies.)

929. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 17:25:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <GKa%f.15281$tN3.15201@newssvr27.news.prodigy.net>
Source record: 61071

John Popelish wrote:
> A series inductor (a non real, ideal one) with absolutely no phase shift
> or magnitude change in the current from one end to the other, still
> produces a phase shift of input voltage to output voltage, ...

If the voltage is leading the current, and the current
experiences no phase shift through the coil, doesn't that
imply that the voltage must travel faster than light and
indeed jump forward in time to catch up with the phase
of the current?

What does it mean to the E-fields and H-fields to say
the voltage is leading the current?
--
73, Cecil http://www.qsl.net/w5dxp

930. Re: Improving FM in building

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 17:37:06 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1144863426.754013.5010@u72g2000cwu.googlegroups.com>
Source record: 61072

Good point. Might as well start simple.

931. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 17:42:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2veq3214birv21c9r8iol2kq20ha4jsi4r@4ax.com>
Source record: 61074

On Wed, 12 Apr 2006 13:39:20 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>What I am officially asking you to do is to cease and desist

Is that you Herr Doktor?

932. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 17:43:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <v%a%f.15303$tN3.4571@newssvr27.news.prodigy.net>
Source record: 61073

K7ITM wrote:
> Yes, well, thank you _very_ much indeed, Cecil, for this further
> insight into the workings of your mind.

If you consider a request for you to honor the netnews
guidelines for attributions a problem, then it's your
problem, not mine. No ethical person would attribute one
person's postings to someone else.

If you don't like that attitude, I suggest you cease and
desist from violating the netnews guidelines for attributions.
I'm going to point it out every time you attribute a posting
from someone else to me or when you attribute one of my
postings to someone else.

When trimming one line attributes the posting to a completely
different person, that is a clear violation.
--
73, Cecil http://www.qsl.net/w5dxp

933. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 17:49:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <L4b%f.15307$tN3.3695@newssvr27.news.prodigy.net>
Source record: 61075

Richard Clark wrote:

> Cecil Moore <mycall@hotmail.com wrote:
>>What I am officially asking you to do is to cease and desist
>
> Is that you Herr Doktor?

That's a legal term under Texas law.
--
73, Cecil http://www.qsl.net/w5dxp

934. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 17:56:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5nfq321v4ue0h1hlgcobbsj6g5b68hhmn0@4ax.com>
Source record: 60976

On Wed, 12 Apr 2006 17:49:31 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>
>> Cecil Moore <mycall@hotmail.com wrote:
>>>What I am officially asking you to do is to cease and desist
>>
>> Is that you Herr Doktor?
>
>That's a legal term under Texas law.

Oh, must be Phil then, Herr Doktor never explains anything.

So, Phil, did you get your JD? Or do you just dress like one?

935. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 17:59:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tsfq325jijc54m2ck63guvhcemdp4dk4vt@4ax.com>
Source record: 60977

On Wed, 12 Apr 2006 17:43:55 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>When trimming one line attributes the posting to a completely
>different person, that is a clear violation.
Is that an RMS Net violation of the superposition of all violations
considererd? If we back up the thread half a wavelength would the
violation be repeated, or would there be a phase issue? What is the
Vf of a violation in your religion?

936. Re: JOHN CHIPMAN OWNER OF CHIPMAN RELOCATIONS UNITED VAN LINES MAYFLOWER CATON MOVING & STORAGE likes to make many harassing/harassment phone calls

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 18:42:35 UTC
From: Howard W3CQH <hgorden@adelphia.net>
Message-ID: <J-OdnWTCBqWE16DZRVn-pw@adelphia.com>
Source record: 60978
Cross-posted to: alt.cellular.bluetooth,alt.cellular.attws,alt.cellular.cingular,rec.radio.amateur.antenna,rec.autos.sport.cart

Why do you cross post this garbage to everybody? Apparently you don't have
a life!

"studley the bull" <studleythebull@aol.com> wrote in message
news:1144813345.585052.29750@t31g2000cwb.googlegroups.com...
>
> are we having fun yet wrote:
>> JOHN CHIPMAN OWNER OF CHIPMAN RELOCATIONS UNITED VAN LINES MAYFLOWER
>> CATON MOVING & STORAGE likes to make many harassing/harassment phone
>> calls
>> JOHN CHIPMAN OWNER OF CHIPMAN UNITED VAN LINES likes
>> to make many harassing/harassment phone calls to people and the
>> old man sounds like he is off his meds he says my name is
>> JOHN CHIPMAN OWNER OF CHIPMAN UNITED VAN LINES
>> and i would like to buy you a cup of tea. you can hear the
>> many harassing/harassment phone calls he is making from
>> 510-337- & 510-337- @ http://tinyurl.com/pe67o
>> United Van Lines Agent,Concord, CA 94520
>> Chipman Relocations, Alameda, CA 94501
>> moving boxes
>> California Movers storage
>> zoominfo.com
>
> studley
>

937. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 18:43:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123qihrf94k80e8@corp.supernews.com>
Source record: 60979

Yuri Blanarovich wrote:
>
> Oooops, carefull here.
> As far as I know, nobody has claimed that inserted loading coil replaces the
> "missing" degrees of the radiator in terms of providing magical properties
> that would look like that "replaced" portion of the antenna, or make the
> antenna act like 90 degree full size physical radiator.

Agreed, it's not quite stated as such. Here are some statements which were made:

From your web page http://www.k3bu.us/loadingcoils.htm, in bold type:

"In summary:
The current in a typical loading coil in the shortened antennas drops across the coil roughly corresponding to the segment of the radiator it replaces."

By Cecil, on March 5, on this newsgroup:

"A loading coil thread is climaxing over on qrz.com. I have used EZNEC to generate a graphic which shows a 3/4WL vertical and a similar 1/2WL vertical with a ~1/4WL loading coil. The loading coil is a wire helical coil containing (surprise) roughly 1/4WL of wire. The coil does a good (not perfect) job of replacing 1/4WL of wire. Many things can be gathered from observation of the current reported by EZNEC for the two antennas. The coil occupies roughly the same number of degrees of the antenna as the wire it replaces. The current at the top and bottom of the coil is roughly the same as the current at the two ends of the wire it replaces. Is the coil an exact replacement? Of course not."

> What we are saying that the loading coil appears to replace "missing"
> electrical degrees of the radiator in order to make it resonant, that is
> back to 90 electrical degrees (has to be in order to resonant), which rest
> of the existing "straight" radiator forces it to do (+/-).

It's getting muddier and muddier just what you mean by "replace". Nobody has questioned that a loading coil makes the antenna resonant; that's its purpose. But that's simply an impedance transformation property which can be accomplished well away from the antenna by many different methods.

> Radiation
> properties and efficiency of the loaded antenna is proportional to the area
> under the current curve. It is obvious to anyone comparing the area under

> the current curve of full size quarter wave radiator vs. loaded radiator
> that there is huge difference in area under the curve and performance,
> efficiency, which is known and been verified by numerous measurements.
> HOW the current curve is modified by different loadings and position along
> the radiator is important in knowing how the current distribution curve
> along the radiator is modified.

I agree with all this. I'm glad you've clarified this for the benefit of
posters like the one to whom my recent posting was directed.

> The whole controversy is that "gurus" claim current doesn't drop across the
> coil, while we say that it does, therefore making the area under current
> curve above the coil smaller and effciency of loaded antenna worse than they
> believe and insist on.

I don't think you'll have any trouble winning your arguments against
your imaginary "gurus", whomever and whatever they might be. Over two
years ago I made careful measurements which showed a current difference
between the top and bottom of a loading coil. Cecil posted an EZNEC
model on his web site showing a substantial difference. I've commented
on it several times, explaining the reason for the difference, and
modifying the model to illustrate the explanation.

The controversy is in the explanation of the difference. It simply
doesn't require Cecil's theories. I've never been able to tell exactly
what your theory is, if you indeed have one.

> Again, when applied in modeling programs, wrong assumption will produce
> erroneous results, which will be magnified in multielement antenna designs.
> So the "gurus" basically ignore behavior of coil in the standing wave
> environment along the loaded radiator, where the current drops from max at
> base to zero at the tip, but coil would magicaly resist that, because, bla,
> bla, bla.... (see their "reasons")

Would you name these "gurus" so we can read their postings and see what
you're talking about?

> So while everyone knows (?) that standing wave current drops acros (along)
> the wire (all the antenna books show that), but it is "impossible" to drop
> along the coiled wire (real inductance - coil, loading stub). Reality and
> measurments prove that, but according to them "it can't be so".
>
> I am already gathering necessary hardware to do more experiments,
> measurements to show what is really happening, and will prepare articles how
> to model and apply it to antenna design.
> I would challenge the "unbelievers" to join me and repeat the tests, to see
> wasaaaap.

You'll be surprised when everyone agrees that there's a current
difference between the top and bottom of the coil. Unless your "gurus"
show up, whomever they are.

I've already made a test and posted the results, over a year ago. When it failed to show a current difference anywhere near the number of degrees it "replaced", your complaint was that I was using an inductor which was too small physically. So obviously your theory works only on certain size inductors. Once you or Cecil has the theory fully worked out, it should be able to not only tell us what the current difference between top and bottom should be, but also how physically large an inductor must be before the theory works. And why it doesn't work for physically small inductors.

Those of us stuck with old fashioned conventional theory can explain the drop for small as well as large coils, so you folks have a bit of catching up to do.

I think a lot of the experimental work can be done by modeling. I'd be interested in hearing of any cases where measured results differ significantly from EZNEC results. Incidentally, your web page is a bit outdated in that respect, apparently being written before EZNEC v. 4.0 was available with its automated helix creation feature.

Roy Lewallen, W7EL

938. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 19:02:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <A9c%f.69280$dW3.29142@newssvr21.news.prodigy.com>
Source record: 60980

Richard Clark wrote:

> Cecil Moore <mycall@hotmail.com> wrote:
>>That's a legal term under Texas law.
>
> Oh, must be Phil then, Herr Doktor never explains anything.

I thought the explanation was obvious. If I am going to
get sued because of false attributions, I need a paper
trail and proof that I objected to those false attributions.
--
73, Cecil http://www.qsl.net/w5dxp

939. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 19:04:18 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Sac%f.69281$dW3.55761@newssvr21.news.prodigy.com>
Source record: 60981

Richard Clark wrote:

> Cecil Moore <mycall@hotmail.com> wrote:
>>When trimming one line attributes the posting to a completely
>>different person, that is a clear violation.
>
> Is that an RMS Net violation of the superposition of all violations
> considererd?

Tsk, tsk, Richard, are you defending false attributions?
--
73, Cecil http://www.qsl.net/w5dxp

940. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 19:13:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d8kq32ltts0r7fbl5duaomp8hpemj7pngo@4ax.com>
Source record: 60982

On Wed, 12 Apr 2006 19:04:18 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>
>> Cecil Moore <mycall@hotmail.com> wrote:
>>>When trimming one line attributes the posting to a completely
>>>different person, that is a clear violation.
>>
>> Is that an RMS Net violation of the superposition of all violations
>> considererd?
>
>Tsk, tsk, Richard, are you defending false attributions?

Tsk Tsk? to what accuracy ï¿½59%?

941. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 19:15:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rakq321g8itbfr29eqpvu1sgcuc197pppo@4ax.com>
Source record: 60983

On Wed, 12 Apr 2006 19:02:56 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>
>> Cecil Moore <mycall@hotmail.com> wrote:
>>>That's a legal term under Texas law.
>>
>> Oh, must be Phil then, Herr Doktor never explains anything.
>
>I thought the explanation was obvious. If I am going to
>get sued because of false attributions, I need a paper
>trail and proof that I objected to those false attributions.

Paper trail? Phil, push over those stacks of "research" and fire up
the Xerox!

942. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 19:20:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <%pc%f.69283$dW3.66938@newssvr21.news.prodigy.com>
Source record: 60984

Roy Lewallen wrote:
> Agreed, it's not quite stated as such. Here are some statements which
> were made:
>
> From your web page http://www.k3bu.us/loadingcoils.htm, in bold type:
>
> "In summary:
> The current in a typical loading coil in the shortened antennas drops
> across the coil roughly corresponding to the segment of the radiator it
> replaces."
>
> By Cecil, on March 5, on this newsgroup:
> The coil occupies roughly the same number
> of degrees of the antenna as the wire it replaces.

Roy, maybe you need to learn the definition of "roughly".
It is certainly not "exactly" as you are clutching at straws
to imply. Why you need to change the definitions of words
is obvious from your flawed arguments. Exactly what is
it about "roughly" that you don't understand?

> It's getting muddier and muddier just what you mean by "replace".

That meaning has never been in doubt. "Replace" has always
meant bringing the necessary signals back into phase so the
feedpoint impedance is purely resistive. You know perfectly
well that it has never been about physical length or radiation.
Those are just another two of your straw men. Your attempt
to muddy those waters has been going on for years including
your attempt to discredit the distributed network model in
favor of the lumped circuit model. Hint: The distributed
network model is a superset of the lumped circuit model.
If you succeed in discrediting the distributed network
model, you have automatically succeeded in discrediting
the lumped circuit model. It's a lose-lose proposition
for you.
--
73, Cecil http://www.qsl.net/w5dxp

943. Re: Improving FM in building

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 19:22:14 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <443D5362.A5E09CCD@shaw.ca>
Source record: 60985

amdx wrote:
>
> The health club I belong to has poor FM reception inside the building.
> I'm trying to get them to improve it. The thought I have is to install
> an outside omni antenna and connect it to an inside identical antenna
> hanging down from the ceiling.
> Is this a workable idea?
> Does anyone have info to help make the improvements?
>
> Thanks
> Mike
> PS---This is for all the personal FM radios worn by the exercisers.

If they have cable TV in the club you can put a set of rabbit ears
in one of the outlets and see if that helps. A preamp may help too.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

944. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 19:24:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Ltc%f.69286$dW3.37381@newssvr21.news.prodigy.com>
Source record: 60986

Richard Clark wrote:
> Paper trail? Phil, push over those stacks of "research" and fire up
> the Xerox!

I am indeed printing out the postings just in case the false
attributions result in a lawsuit against me. I can't afford
not to be careful.
--
73, Cecil http://www.qsl.net/w5dxp

945. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 19:47:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k8mq325g3490eecsvkftnha3mlrfl3po7d@4ax.com>
Source record: 60987

On Wed, 12 Apr 2006 19:24:27 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>> Paper trail? Phil, push over those stacks of "research" and fire up
>> the Xerox!
>
>I am indeed printing out the postings just in case the false
>attributions result in a lawsuit against me. I can't afford
>not to be careful.

But you CAN afford to be paranoid? What a WUSS!

946. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 19:55:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <wWc%f.69301$dW3.34442@newssvr21.news.prodigy.com>
Source record: 60988

Richard Clark wrote:
> But you CAN afford to be paranoid? What a WUSS!

It doesn't cost anything to be paranoid. :-)
--
73, Cecil http://www.qsl.net/w5dxp

947. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 19:58:16 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <sZc%f.5745$1q4.3108@bgtnsc05-news.ops.worldnet.att.net>
Source record: 60989

Cecil Moore wrote:
>
>
> Roy, maybe you need to learn the definition of "roughly".
> It is certainly not "exactly" as you are clutching at straws
> to imply. Why you need to change the definitions of words
> is obvious from your flawed arguments. Exactly what is
> it about "roughly" that you don't understand?

Cecil,

Is 10 degrees of phase shift "roughly" equal to 75 degrees of phase shift? I don't think anyone is trying to nit-pick the numbers to a precision of several significant figures. A multiple of greater than 7 would seem to be just a bit outside the scope of "roughly".

73,
Gene
W4SZ

948. Re: Grounding Bar Length For Receiving Only Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 20:03:06 UTC
From: Ed Bailen <n5kzw@arrl.net>
Message-ID: <fqmq32h4t7g1bmeu5fun1pjvhigvt1vpfg@4ax.com>
Source record: 60990

I don't know that I buy your statement that ground losses aren't extremely important for receiving applications. Antenna systems are bi-directional. If you lose xdB of transmitted sigal due to ground losses, then you are also going to lose xdB of received signal due to ground losses.

A more important issue is that ground losses are very important when receiving a lightning strike. It may be effective to bury several runs of bare #6 copper in trenches radiating from your "ground point". The QTH here is located on a solid rock slab. All grounding is through buried #6 wires and a few ground rods driven laterally between the rock layers up by the tower base.

Regards,
Ed

On 11 Apr 2006 12:46:24 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

>Hi Bob,
>
>Ground losses aren't extremely important for receiving applications. A
>few extra feet of depth of ground rod isn't going to make any
>difference, because the RF doesn't flow 8 feet down, or 5 feet down,
>but more flows on the surface of the ground and/or some inches down
>(depending on your ground conductivity profile)
>
>As such, you could try a 4 or 5 foot ground rod.
>
>If you want a no-pounding solution instead, lay down a few radial
>wires. The length and number aren't critical. Try four or eight wires
>each 1/8 wavelength long at the lowest frequency of interest.
>
>If the noise in your receiver doesn't increase when you plug the
>antenna into the RX , then you may want a better ground system. If the
>noise DOES increase, then your noise floor is that of the
>natural/artificial noise that your antenna is picking up, and more raw
>signal from the antenna won't help anything. (Though moving the
>antenna around might).
>
>73,
>Dan
>N3OX
>www.n3ox.net

949. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 20:03:34 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <q2d%f.69303$dW3.7563@newssvr21.news.prodigy.com>
Source record: 60991

Ian White GM3SEK wrote:

Ian, I am leaving on a 6 state motorcycle trip and won't be back until Monday. I would like for you to answer this question while I am gone.

I've heard that, while operating portable, if I attach a wire to my 75m mobile whip and run it up a tree, I will be able to make more contacts. So I attach a 1/4WL wire to the whip of my 75m mobile bugcatcher system.

I decide to measure the current "into" the bottom of the coil and "out" of the top of the coil. To my utter amazement I measure 1.3 amps flowing "into" the bottom of the coil and 2.1 amps flowing "out" of the top of the coil.

How does your lumped circuit theory explain that? Where is that extra 0.8 amps of current coming from?

Please don't insult our intelligence by saying it cannot happen. It does happen. I suspect you are at a loss to explain it.
--
73, Cecil http://www.qsl.net/w5dxp

950. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 20:09:04 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <A7d%f.69305$dW3.47829@newssvr21.news.prodigy.com>
Source record: 60992

Gene Fuller wrote:
> Is 10 degrees of phase shift "roughly" equal to 75 degrees of phase
> shift?

Of course not. The 10 degrees of phase shift has already been
proven to be wrong because of reflections within the coil.
Why do you insist on bringing up old invalid data?

Please note that *nobody* is alleging that the phase shift
through a 75m bugcatcher coil is 75 degrees. That is just
another one of your straw men.

Now why don't you become a rational, ethical person and
suggest a valid way of measuring the phase shift through
a coil? Can you improve on my suggestion of yesterday?
--
73, Cecil http://www.qsl.net/w5dxp

951. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 20:17:48 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <t$2MTOcsBWPEFAIw@ifwtech.co.uk>
Source record: 60993

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> Now what happens if the load is not exactly 50 ohms?
>
>If the feedline is 50 ohms, what happens is reflected
>energy that is easily visible using a TDR, time domain
>reflectometer.
>
>> One is that if the meter scale says "power", then there genuinely
>>are forward and reflected traveling waves of power on the line. In the
>>"93 - 23 = 70W" example, the belief is that there genuinely is a
>>power flow of 93W towards the load, only 70W of which is accepted and
>>23W is returned.
>
>One correction. The Bird wattmeter is installed at a point
>on the transmission line and it measures the power at that
>point. What is traveling is the energy. Power is the number
>of joules per second passing a fixed point. "Power flow" is
>somewhat of a misnomer.
>
Sorry, you're right about "power flow". What I meant was a forward
travelling wave carrying 93W towards the load.

>> The other school of thought is that that's not true. The meter may
>>*read* more "forward power" than is actually being delivered to the
>>load, but that is a false indication because the instrument is not
>>being used in the situation for which the power scale was calibrated.
>
>It certainly is being used in the situation for which it was
>calibrated if the Z0 of the transmission line is 50 ohms.
>
I'm not sure which "transmission line" you meant here, but I don't think
it matters anyway.

The inserts are individually calibrated with a 50 ohm load impedance
connected to the "Antenna" socket. The internal pot is adjusted to give
the correct power reading (at one point on a meter scale that is
pre-printed), and then the insert is reversed and a tab is bent to
adjust the capacitive coupling to give the lowest possible reading.
There may be some interaction requiring the two adjustments to be
repeated, I don't know.

If you meant the transmission line outside of the instrument, the
calibration load may or may not include a length of matched 50 ohm
transmission line - it doesn't matter. Inside the instrument, the

characteristic impedance of the internal line is 50 ohms in order to avoid introducing an impedance bump into a system that is already matched, but even with say a 57 ohm internal line, the Bird insert could be set up to indicate power correctly into a 50 ohm load. The only difference is that the performance would become frequency-sensitive.

>> On the other hand, we have yet to see an explanation in equivalent
>>physical detail that is based entirely and exclusively on the
>>viewpoint of travelling waves of power ...
>
>Please give up on your misconception. Those are traveling waves
>of *ENERGY*. Power is what is measured when traveling energy passes
>a fixed point. Perhaps that is your whole point of confusion.

You're right, they would indeed be travelling waves of energy rather than power. But otherwise the same challenge is still out there: if forward and reflected travelling waves of energy exist, we would expect to see a detailed explanation of how the Bird or any similar instrument interacts with such waves <as distinct from> the explanations that we already have for travelling waves of voltage and current.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

952. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 20:28:40 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <z$TLDfd4LWPEFAn3@ifwtech.co.uk>
Source record: 60995

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>
>Ian, I am leaving on a 6 state motorcycle trip and won't be
>back until Monday. I would like for you to answer this
>question while I am gone.
>
>I've heard that, while operating portable, if I attach
>a wire to my 75m mobile whip and run it up a tree, I
>will be able to make more contacts. So I attach a 1/4WL
>wire to the whip of my 75m mobile bugcatcher system.
>
>I decide to measure the current "into" the bottom of the
>coil and "out" of the top of the coil. To my utter amazement
>I measure 1.3 amps flowing "into" the bottom of the coil and
>2.1 amps flowing "out" of the top of the coil.
>
>How does your lumped circuit theory explain that? Where is
>that extra 0.8 amps of current coming from?
>
>Please don't insult our intelligence by saying it cannot
>happen. It does happen. I suspect you are at a loss to
>explain it.

I do not expect equal currents at the top and bottom of any real-life coil. That is a strawman argument, based on what *you* claim other people are saying.

But you can make coils that come quite close to behaving like an ideal lumped inductance. And the closer they are, the closer to equal I expect the currents at the two ends to become, and the closer to zero I expect the phase shift in current to be... because that is how pure inductance behaves, with no exceptions due to "special situations".

Cecil, in all sincerity, have a good trip and please drive safely. I'd have been much safer on the roads last weekend if I hadn't been thinking about this stuff as well.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

953. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 20:36:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c5pq32582a17pp65ourhdu7p7j0fv672a2@4ax.com>
Source record: 60994

On Wed, 12 Apr 2006 19:55:08 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>> But you CAN afford to be paranoid? What a WUSS!
>
>It doesn't cost anything to be paranoid. :-)

You must have a Xerox bulk copy rate.

954. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 20:45:36 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <QFd%f.5966$1q4.5411@bgtnsc05-news.ops.worldnet.att.net>
Source record: 60996

Cecil,

I will retain the entire message below, so that I am not accused of misattribution.

Where did you get this idea that the velocity factor is constant? Specifically, why is the velocity factor of a resonant coil the same as the velocity factor of a significantly shorter coil? It is pretty well accepted that the inductance of coils does not scale linearly with the length of the coil. Therefore any arguments about based on direct calculation of Vf from L and C would seem to fail to support your model.

I can think of two possibilities.

The first is that you treat this entire problem as a transmission line. Most people would accept that the velocity factor for 200 feet of RG8 is indeed the same as the velocity factor for 100 feet of the same cable.

However, the velocity factor appears to be the crux of your latest argument about the behavior of a loading coil. It is not exactly acceptable technique to include the desired answer as part of the proof.

The other possibility is that you are taking the lead from one of the Corum papers. In particular, I am referring to the paper labeled:

"TELSIKS 2001, University of Nis, Yugoslavia (September 19-21, 2001) and MICROWAVE REVIEW"

If so, I suggest you go back and reread what was written. He specifically says (page 4, left column) that the equations for velocity factor that show Vf as a function of diameter, spacing, and wavelength apply only at resonance. The exact words are:

" . . . an approximation for M has been determined by Kandoian and Sichak which is appropriate **for quarter-wave resonance** and is valid for helices . . ."

The emphasis on quarter-wave resonance was in the original; I did not change a thing. The remainder of the paper clearly indicates that he is talking about coils near or at resonance. There is no extension of the Vf equations to short non-resonant coils. Indeed, he comments several times that his model smoothly joins with the lumped circuit model for smaller coils. That would require a non-constant Vf.

You attempt at decomposition of a resonant coil into smaller subcomponents simply fails.

This is not an "ignorant diversion". If you have a third method of
supporting your claim of constant Vf, let's hear it.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Cecil Moore wrote:
>>
>>> Gene Fuller wrote:
>>>
>>>> So you think adding turns to a coil is a nice linear process that
>>>> allows you to then subdivide the resonance effects according the
>>>> number of turns in each subsection?
>>>
>>>
>>> That appears to me to be the most valid measurement that we
>>> can make of the delay through a coil. If you have a better
>>> way, please present it.
>>
>>
>> C'mon, you know as well as anybody that inductance of a coil tends to
>> increase as n-squared. Yes, there are all kinds of special cases and
>> correction factors.
>
>
> Increasing the length of a coil or transmission line doesn't
> change its velocity factor at a fixed frequency.
>
>> Adding turns and then pretending everything is nice and linear,
>> thereby allowing decomposition into subcomponents, is just plain silly.
>
>
> Velocity factor is *nice* and linear, i.e. it is constant.
>
> Please stop these diversions. I'm sure you are not that ignorant.

955. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 20:55:32 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <8Pd%f.67947$Jd.27312@newssvr25.news.prodigy.net>
Source record: 60998

Cecil Moore wrote:
> Richard Clark wrote:
>
>> Paper trail? Phil, push over those stacks of "research" and fire up
>> the Xerox!
>
>
> I am indeed printing out the postings just in case the false
> attributions result in a lawsuit against me. I can't afford
> not to be careful.

Cecil, no one but a madman would ever sue you for anything.
Your presence alone would wreck any legal proceeding even
in a state as idiosyncratic as Texas.
73,
Tom Donaly, KA6RUH

956. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 20:55:37 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <mbSdncJFd-FP-qDZnZ2dnUVZ_tqdnZ2d@adelphia.com>
Source record: 60997

Cecil Moore wrote:
> John Popelish wrote:
>
>> A series inductor (a non real, ideal one) with absolutely no phase
>> shift or magnitude change in the current from one end to the other,
>> still produces a phase shift of input voltage to output voltage, ...
>
>
> If the voltage is leading the current, and the current
> experiences no phase shift through the coil, doesn't that
> imply that the voltage must travel faster than light and
> indeed jump forward in time to catch up with the phase
> of the current?
>
> What does it mean to the E-fields and H-fields to say
> the voltage is leading the current?

It means that the current at both ends of the coil was delayed
(relative to its phase if the coil had not been there). It means that
there was a voltage difference across the ends of the coil that drove
that current through the coil.

957. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 20:57:38 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <6Rd%f.6028$1q4.4181@bgtnsc05-news.ops.worldnet.att.net>
Source record: 60999

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Is 10 degrees of phase shift "roughly" equal to 75 degrees of phase
>> shift?
>
>
> Of course not. The 10 degrees of phase shift has already been
> proven to be wrong because of reflections within the coil.
> Why do you insist on bringing up old invalid data?
>
> Please note that *nobody* is alleging that the phase shift
> through a 75m bugcatcher coil is 75 degrees. That is just
> another one of your straw men.
>
> Now why don't you become a rational, ethical person and
> suggest a valid way of measuring the phase shift through
> a coil? Can you improve on my suggestion of yesterday?

Cecil,

You spent a lot of time developing the "10 degree" model for the bugcatcher coil. When and how did it get proven wrong? The only thing I can recall is that you said it did not make sense technically, and therefore it must be wrong. Recently you launched into this business about adding turns to make the coil resonant. As I just explained, I believe that approach is total nonsense.

You keep referring everyone to the now famous gif image on your web page. The question becomes why is EZNEC correct in supporting your position at some times and incorrect when it does not support your position at other times?

73,
Gene
W4SZ

958. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 21:00:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <FTd%f.10536$4L1.7138@newssvr11.news.prodigy.com>
Source record: 61000

Ian White GM3SEK wrote:
> Cecil, in all sincerity, have a good trip and please drive safely. I'd
> have been much safer on the roads last weekend if I hadn't been thinking
> about this stuff as well.

Sincerely, Ian, how do you explain one amp on the source side of
a coil and two amps on the whip side of a coil? Nothing in your
response even came close to answering that question.

If you are dedicated to technical correctness, your evasion
of this technically simple question is perplexing.

How is it possible to have one amp "flowing into" the bottom
of a coil and two amps "flowing out" of the top of the coil?
If you really believe that one amp is flowing from the earth
ground to the coil through displacement current, please just
say so.
--
73, Cecil http://www.qsl.net/w5dxp

959. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 21:01:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <FUd%f.10537$4L1.9183@newssvr11.news.prodigy.com>
Source record: 61001

Richard Clark wrote:

> Cecil Moore <mycall@hotmail.com> wrote:
>>It doesn't cost anything to be paranoid. :-)
>
> You must have a Xerox bulk copy rate.

I got a free printer with my new Dell computer.
--
73, Cecil http://www.qsl.net/w5dxp

960. Re: Grounding Bar Length For Receiving Only Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 21:07:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123qr18phc9aab5@corp.supernews.com>
Source record: 61002

Ed Bailen wrote:
> I don't know that I buy your statement that ground losses aren't
> extremely important for receiving applications. Antenna systems are
> bi-directional. If you lose xdB of transmitted sigal due to ground
> losses, then you are also going to lose xdB of received signal due to
> ground losses.

Your statement about the "bi-directionality" (usually called reciprocity) of antennas is true. But what counts when receiving is the signal to noise ratio. If you lose x dB at the transmitter, the person receiving the signal gets a signal that's now x dB lower than it was before, and the noise is the same. So the S/N ratio has been reduced by x dB. Therefore it's desirable to minimize loss at the transmitter antenna.

But what happens when the receive antenna has x dB loss? At HF, the dominant source of noise is atmospheric (and QRM). Adding x dB loss at the receive antenna reduces both the signal *and* the noise by x dB. The result is the same S/N ratio as before. That's why efficiency isn't important for HF receiving antennas. Of course, you could reach a point where the efficiency is so bad that the receiver noise dominates. Beyond that point, lowering receive antenna efficiency will reduce S/N ratio. But this point is usually a long way down. Likewise, at VHF and above, where atmospheric noise is low and receiver noise dominates, high receive antenna efficiency is desirable. But the original question was, I believe, in reference to HF receiving.

> A more important issue is that ground losses are very important when
> receiving a lightning strike. It may be effective to bury several
> runs of bare #6 copper in trenches radiating from your "ground
> point". The QTH here is located on a solid rock slab. All grounding
> is through buried #6 wires and a few ground rods driven laterally
> between the rock layers up by the tower base.

Lightning protection and mains safety grounding are separate issues with somewhat different requirements. Although a good lightning ground probably usually constitutes a reasonably efficient RF ground, that's not always the case, and the reverse isn't necessarily true either.

Roy Lewallen, W7EL

961. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 21:13:10 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144876390.898187.120660@z34g2000cwc.googlegroups.com>
Source record: 61003

Like I posted earlier today, Tom, all of this provides an interesting window into Cecil's mind.

Imagine my reaction when I read today's (2006-04-12) edition of the Lola comic strip: http://www.comics.com/comics/lola/index.html

Cheers,
Tom

962. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 21:14:17 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <J4e%f.10543$4L1.5620@newssvr11.news.prodigy.com>
Source record: 61004

Gene Fuller wrote:
> I will retain the entire message below, so that I am not accused of
> misattribution.

Gene, to the best of my knowledge, you have never
misattributed anything.

> Where did you get this idea that the velocity factor is constant?

The equation for velocity factor includes coil diameter,
turns per inch, and wavelength. Keeping the coil diameter
constant, the turns per inch constant, and the wavelength
constant should ensure that the velocity factor is constant.

> Specifically, why is the velocity factor of a resonant coil the same as
> the velocity factor of a significantly shorter coil? It is pretty well
> accepted that the inductance of coils does not scale linearly with the
> length of the coil. Therefore any arguments about based on direct
> calculation of Vf from L and C would seem to fail to support your model.

You are obviously mistaken. If you increase the L by lengthening
the coil, you have also increased the C by the same percentage.
The L and C for any unit length are the same no matter how long
the coil or transmission line is.

> " . . . an approximation for M has been determined by Kandoian and
> Sichak which is appropriate **for quarter-wave resonance** and is valid
> for helices . . ."

Yes, but if one doesn't change the frequency or the diameter or
the turns per inch, the approximation should hold since nothing
in the VF equation changes by shortening the coil. One should be
able to shorten or lengthen the coil andmaintain the same VF.

Seems it is up to you to prove what you are saying. Please prove
that the ratio of L to C ratio of a coil changes with length. That
should be an interesting proof.
--
73, Cecil http://www.qsl.net/w5dxp

963. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 21:22:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gce%f.10545$4L1.910@newssvr11.news.prodigy.com>
Source record: 61005

John Popelish wrote:

> Cecil Moore wrote:
>> What does it mean to the E-fields and H-fields to say
>> the voltage is leading the current?
>
> It means that the current at both ends of the coil was delayed (relative
> to its phase if the coil had not been there). It means that there was a
> voltage difference across the ends of the coil that drove that current
> through the coil.

In order to avoid any delay through the coil, you propose a delay
in the one inch of wire at the bottom of the coil? Does that really
make sense to you? How is this magic delay accomplished?
--
73, Cecil http://www.qsl.net/w5dxp

964. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 21:31:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zke%f.10546$4L1.5766@newssvr11.news.prodigy.com>
Source record: 61006

Gene Fuller wrote:
> You spent a lot of time developing the "10 degree" model for the
> bugcatcher coil.

Yes, it was a waste of time since I didn't accomplish the
goal of eliminating reflections. The phase angle between
the source voltage and source current is 71 degrees. That
proves that I failed to eliminate reflections.

> You keep referring everyone to the now famous gif image on your web
> page. The question becomes why is EZNEC correct in supporting your
> position at some times and incorrect when it does not support your
> position at other times?

EZNEC doesn't differentiate between standing waves and traveling
waves. The user has to ensure there are no reflected waves. I
failed in that task. It's no big deal. I fail quite often.

My position is technical facts and accuracy. What is your
position?
--
73, Cecil http://www.qsl.net/w5dxp

965. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 21:33:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Vme%f.10547$4L1.1602@newssvr11.news.prodigy.com>
Source record: 61007

K7ITM wrote:
> Like I posted earlier today, Tom, all of this provides an interesting
> window into Cecil's mind.

Tom, I find it strange that you are defending your violation
of newnews attribution guidelines. What other unethical
activities do you defend?
--
73, Cecil http://www.qsl.net/w5dxp

966. Re: Balloon lifted wire antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 21:35:22 UTC
From: dougmc@frenzy.com
Message-ID: <uoe%f.23312$_26.9952@tornado.texas.rr.com>
Source record: 61008

In article <WdrZf.824$Fl.28@fed1read09>,
N7ZZT - Eric Oyen <n7zzt@127.0.0.1> wrote:

| would you care to explain that?????
|
| conversely, Hydrogen is:
| Element 1
| atomic weight: 1.00794

Of course, in the context of a balloon, it's important to remember
that atomic hydrogen is not generally found -- instead, you see H-H or
H2 molecules, so hydrogen gas is approximately 1/2 as dense as helium,
not 1/4 as dense. (Of course, others have already mentioned this.)

| Number of Protons/Electrons: 1
| Number of Neutrons: 0
|
| hydrogen is also known to have *at least* 5 known isotopes (all unstable and
| all prone to radioactive decay).

Well, the most common isotope of hydrogen, which is just a proton with
no neutrons (and is called protium when you need a name), is NOT prone
to radioactive decay. Neither is deuterium, for that matter.

According to http://en.wikipedia.org/wiki/Isotopes_of_hydrogen, seven
isotopes of hydrogen have been found, but the first two, protium and
deuterium are stable, the third, tritium is unstable but not extremely
so (half life = 12 years.) The rest are extremely unstable and not
naturally occurring in any signifigant degree if at all.

Though I'm not sure what any of this has to do with a balloon or blimp
-- protium is 6500 times more common than deuterium, and tritium is
much much less common than that. Just assume your balloon has normal
hydrogen in it.

I wonder how the local CCR would react to me putting up a large HF
antenna with a balloon ... poorly, I imagine :)

--
Doug McLaren, dougmc@frenzy.com, AD5RH For lucky best wash, use Mr. Sparkle!

967. Re: Improving FM in building

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 22:05:05 UTC
From: Ian Jackson <IanJacksonRemoveThisBit@g3ohx.demon.co.uk>
Message-ID: <eXBBLPMRmXPEFwgK@g3ohx.demon.co.uk>
Source record: 61010

In message <443D5362.A5E09CCD@shaw.ca>, Irv Finkleman <finkirv@shaw.ca>
writes
>amdx wrote:
>>
>> The health club I belong to has poor FM reception inside the building.
>> I'm trying to get them to improve it. The thought I have is to install
>> an outside omni antenna and connect it to an inside identical antenna
>> hanging down from the ceiling.
>> Is this a workable idea?
>> Does anyone have info to help make the improvements?
>>
>> Thanks
>> Mike
>> PS---This is for all the personal FM radios worn by the exercisers.
>
>If they have cable TV in the club you can put a set of rabbit ears
>in one of the outlets and see if that helps. A preamp may help too.
>
>Irv VE6BP

Irv,
Have you any idea about the lengths which cable TV operators go to to
keep their networks RF-tight (ingress and egress)? Feed an outlet into
antenna? Maybe not such a good idea!!
Ian.
--

968. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 22:05:29 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <tN-dnRimhJau5aDZnZ2dnUVZ_sydnZ2d@adelphia.com>
Source record: 61009

Cecil Moore wrote:
> John Popelish wrote:
>
>> Cecil Moore wrote:
>>
>>> What does it mean to the E-fields and H-fields to say
>>> the voltage is leading the current?
>>
>>
>> It means that the current at both ends of the coil was delayed
>> (relative to its phase if the coil had not been there). It means that
>> there was a voltage difference across the ends of the coil that drove
>> that current through the coil.
>
>
> In order to avoid any delay through the coil, you propose a delay
> in the one inch of wire at the bottom of the coil? Does that really
> make sense to you? How is this magic delay accomplished?

Exactly the way it is accomplished if you apply AC to an LC "L" low pass filter that droves a resistor load. The short antenna acts as the capacitor (in parallel with losses and radiation) in the circuit. It is resonated with the series inductor so both the inductance and capacitance cancel, so the source drives only the losses and radiation. Power factor corrected.

If you don't believe me, simulate it with EZNEC. Connect a source to a parallel combination of C and R. Record the phase of the current with respect to the voltage (the current will lead). Then add a series inductance that cancels the capacitance, and the current will be delayed till it matches the phase of the applied voltage. Power factor corrected.

969. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 22:28:28 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144880908.196845.255250@u72g2000cwu.googlegroups.com>
Source record: 61011

Heaven only knows why Cecil keeps insisting on bring up "lumped circuit theory" when it's clear that nobody else here is considering it, but since he does and keeps insisting that we provide an example of a lumped circuit that has behaviour which mimics the behaviour of some distributed circuit:

--100 ohm resistance to common
--100uH inductance in series with that resistance
--25.856pF capacitance from the other end of the inductance to common
--Feed power across the capacitance
--Frequency = 3.97887MHz (The inductance is +j2500, if you wondered why)
--Adjust the power source so its output current is 1.30 amps RMS.
--Note the current in the resistance is then 2.10 amps RMS.

There's a whole continuum of component values, and a virtually infinite set of circuit topologies, that yield the same terminal performance W.R.T. currents. But who besides Cecil cares? It has nothing to do with the issues at hand, and it's not very interesting.

Cheers,
Tom

970. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 22:38:17 UTC
From: w8ji@akorn.net
Message-ID: <1144881497.087046.72490@e56g2000cwe.googlegroups.com>
Source record: 61012

Cecil Moore wrote:
> Yuri Blanarovich wrote:
> > What we are saying that the loading coil appears to replace "missing"
> > electrical degrees of the radiator in order to make it resonant, ...
>
> W8JI says we are correcting the power factor. Every EE knows that
> correcting the power factor involves shifting the phase, i.e.
> the coil cannot correct the power factor without providing a phase
> shift.

This is another area where you fall right square on your face.

An inductance changes the relationship between phase of voltage and
current, NOT current through the inductance from terminal to terminal.

You either know that and are intentionally avoiding it to save face, or
you need to brush up on basic theory.

> > The whole controversy is that "gurus" claim current doesn't drop across the
> > coil, while we say that it does, ...

Yuri again distorts fact. What everyone is saying is there can be a
current change, but it is not caused by standing waves or missing
antenna area. It is caused by displacement current, and so can have a
wide range of change in a given antenna.

Please write that down Yuri, and keep it in front of you so you don't
forget again!

73 Tom

971. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 22:45:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ln0r321i1710673jh7av3q4rq4fllcn3lr@4ax.com>
Source record: 61013

On Wed, 12 Apr 2006 21:01:25 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>
>> Cecil Moore <mycall@hotmail.com> wrote:
>>>It doesn't cost anything to be paranoid. :-)
>>
>> You must have a Xerox bulk copy rate.
>
>I got a free printer with my new Dell computer.

Now you need a free scanner, and you are truly paranoid by your own
tally.

972. Re: Improving FM in building

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-12 23:31:33 UTC
From: dplatt@radagast.org
Message-ID: <123r3elclpl87e2@corp.supernews.com>
Source record: 61014

In article <eXBBLPMRmXPEFwgK@g3ohx.demon.co.uk>,
Ian Jackson <IanJackson@REMOVE-THIS-BITg3ohx.demon.co.uk> wrote:
>>If they have cable TV in the club you can put a set of rabbit ears
>>in one of the outlets and see if that helps. A preamp may help too.

>Irv,
>Have you any idea about the lengths which cable TV operators go to to
>keep their networks RF-tight (ingress and egress)? Feed an outlet into
>antenna? Maybe not such a good idea!!

Yeah, that's likely to cause problems. The rabbit ears will "leak"
signals that the cable company has no right to be broadcasting... some
of the cable channels overlap with air-traffic control frequencies,
amateur radio, and so forth.

Complaints are likely to arise, either because the egress leakage from
the cable through the rabbit ears interferes with licensed radio
services, or because a licensed transmitter somewhere in the area of
the club leaks back into the cable and wipes out TV reception for
other cable customers.

Upon locating the source of the problem, the cable company *might* be
polite enough to simply insist on disconnecting and terminating the
cable outlet in question. Or (depending on how irritated their Cable
Guy is that day) they might just cut off the cable service to the club
entirely.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

973. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 00:17:52 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <4Ng%f.138$732.128@fe10.lga>
Source record: 61015

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:123qihrf94k80e8@corp.supernews.com...
> Yuri Blanarovich wrote:
>>
>> Oooops, carefull here.
>> As far as I know, nobody has claimed that inserted loading coil replaces
>> the "missing" degrees of the radiator in terms of providing magical
>> properties that would look like that "replaced" portion of the antenna,
>> or make the antenna act like 90 degree full size physical radiator.
>
> Agreed, it's not quite stated as such. Here are some statements which were
> made:
>
> From your web page http://www.k3bu.us/loadingcoils.htm, in bold type:
>
> "In summary:
> The current in a typical loading coil in the shortened antennas drops
> across the coil roughly corresponding to the segment of the radiator it
> replaces."
>
> By Cecil, on March 5, on this newsgroup:
>
> "A loading coil thread is climaxing over on qrz.com. I have
> used EZNEC to generate a graphic which shows a 3/4WL vertical
> and a similar 1/2WL vertical with a ~1/4WL loading coil. The
> loading coil is a wire helical coil containing (surprise)
> roughly 1/4WL of wire. The coil does a good (not perfect)
> job of replacing 1/4WL of wire. Many things can be gathered
> from observation of the current reported by EZNEC for the
> two antennas. The coil occupies roughly the same number
> of degrees of the antenna as the wire it replaces. The
> current at the top and bottom of the coil is roughly the
> same as the current at the two ends of the wire it replaces.
> Is the coil an exact replacement? Of course not."
>
>> What we are saying that the loading coil appears to replace "missing"
>> electrical degrees of the radiator in order to make it resonant, that is
>> back to 90 electrical degrees (has to be in order to resonant), which
>> rest of the existing "straight" radiator forces it to do (+/-).
>
> It's getting muddier and muddier just what you mean by "replace". Nobody
> has questioned that a loading coil makes the antenna resonant; that's its
> purpose. But that's simply an impedance transformation property which can
> be accomplished well away from the antenna by many different methods.

>

Roy,
the above are the attempts to illustrate and add some more to understanding and reasoning why the current across (alonng) the loading coil, roughly half way or 2/3 up the resonant quarter wave radiator is larger at the bottom and drops about 40 - 60% at the top. While one side argues that it is (almost) the same, we argue that it drops. That is the argument and not detours to degrees, phasors, and rest of the mud that was rehashed here.

>> Radiation properties and efficiency of the loaded antenna is proportional
>> to the area under the current curve. It is obvious to anyone comparing
>> the area under the current curve of full size quarter wave radiator vs.
>> loaded radiator that there is huge difference in area under the curve and
>> performance, efficiency, which is known and been verified by numerous
>> measurements.
>> HOW the current curve is modified by different loadings and position
>> along the radiator is important in knowing how the current distribution
>> curve along the radiator is modified.
>
> I agree with all this. I'm glad you've clarified this for the benefit of
> posters like the one to whom my recent posting was directed.
>
>> The whole controversy is that "gurus" claim current doesn't drop across
>> the coil, while we say that it does, therefore making the area under
>> current curve above the coil smaller and effciency of loaded antenna
>> worse than they believe and insist on.
>
> I don't think you'll have any trouble winning your arguments against your
> imaginary "gurus", whomever and whatever they might be. Over two years ago
> I made careful measurements which showed a current difference between the
> top and bottom of a loading coil. Cecil posted an EZNEC model on his web
> site showing a substantial difference. I've commented on it several times,
> explaining the reason for the difference, and modifying the model to
> illustrate the explanation.
>
If I remember correctly you inserted the coil at the base and I am not sure if it was resonant quarter wave radiator. Can you describe the setup, length and frequencies used? You should try to use quarter wave resonant radiator with coil about 1/2 to 2/3 up the mast and tell us what the current values are. W9UCW has pictures and data measured, we should try to emulate this situation, that is the object of controversy. Cecil mentioned cases when current can be the same, or lower at the top, or bottom, depending where the same coil is placed in relation to the standing wave and current distribution on the radiator. Are you denying that this is the case or something wrong with W9UCW test setup and results?

> The controversy is in the explanation of the difference. It simply doesn't
> require Cecil's theories. I've never been able to tell exactly what your
> theory is, if you indeed have one.
>

The controversy is about the claims that the current at the ends of the typical loading coil is the same or different in range of 40 -60% drop. Its not my theory, it is the reality that we are trying to bring forth and correct misconceptions that are obviously floating around since 1953. My approximation and explanation (latest) I mentioned is in one of my posts in reply to W8JI "arguments" (to do with impedances).

>> Again, when applied in modeling programs, wrong assumption will produce
>> erroneous results, which will be magnified in multielement antenna
>> designs.
>> So the "gurus" basically ignore behavior of coil in the standing wave
>> environment along the loaded radiator, where the current drops from max
>> at base to zero at the tip, but coil would magicaly resist that, because,
>> bla, bla, bla.... (see their "reasons")
>
> Would you name these "gurus" so we can read their postings and see what
> you're talking about?
>
Mostly the "equal current camp".

>> So while everyone knows (?) that standing wave current drops acros
>> (along) the wire (all the antenna books show that), but it is
>> "impossible" to drop along the coiled wire (real inductance - coil,
>> loading stub). Reality and measurments prove that, but according to them
>> "it can't be so".
>>
>> I am already gathering necessary hardware to do more experiments,
>> measurements to show what is really happening, and will prepare articles
>> how to model and apply it to antenna design.
>> I would challenge the "unbelievers" to join me and repeat the tests, to
>> see wasaaaap.
>
> You'll be surprised when everyone agrees that there's a current difference
> between the top and bottom of the coil. Unless your "gurus" show up,
> whomever they are.
>
> I've already made a test and posted the results, over a year ago. When it
> failed to show a current difference anywhere near the number of degrees it
> "replaced", your complaint was that I was using an inductor which was too
> small physically. So obviously your theory works only on certain size
> inductors. Once you or Cecil has the theory fully worked out, it should be
> able to not only tell us what the current difference between top and
> bottom should be, but also how physically large an inductor must be before
> the theory works. And why it doesn't work for physically small inductors.
>
I have not verified it, but W9UCW claims using ferite inductor and got very similar results. I believe your test, you used coil near the base. I will run test with different inductors from bugcatcher type, "no good" Hustler, to ferite and in different positions.

> Those of us stuck with old fashioned conventional theory can explain the
> drop for small as well as large coils, so you folks have a bit of catching

> up to do.
>
Looks like the size of the coil has small effect on current variation (unless high resistance). Position of the coil in relation to current distribution along the radiator would cause equal (special case), less on the top of coil or more, depending where on the standing wave curve coils is located. In our case we are arguing about 2/3 up the resonant radiator.

> I think a lot of the experimental work can be done by modeling. I'd be
> interested in hearing of any cases where measured results differ
> significantly from EZNEC results. Incidentally, your web page is a bit
> outdated in that respect, apparently being written before EZNEC v. 4.0 was
> available with its automated helix creation feature.
>
Now with solenoid generation in EZNEC 4.0 it helps to get away from the lumped inductance and it shows that there is current drop, reflecting situations in question. Also the loading stub produces similar results. Cecil showed the cases and with different positions along the current curve, demonstrated in EZNEC huge differences in current at the ends of the coil. But this is getting strangely ignored and instead we get all kinds of "reasons" why it can't be.
I am sorry I dropped out of this due to AOL dropping NG, and I thought that reality would be understood by now. Only when Cecil told me that subject flared up again and nothing changed, I rejoined the discussions. I think really at this point, it is beating the dead horse. I will do the tests and write it up. I will try to corellate the tests with modeling in EZNEC. If someone denies the reality, that's their choice. I will post the progress on my web page.
I can't stomach W8JI "exchanges" any more. No answer to questions or following the points, just twist and jive.

> Roy Lewallen, W7EL

I didn't look it up, but is there way in EZNEC to know or calculate the inductance of modeled solenoid? Or better, specify the inductance and let the EZNEC "make" the coil of prescribed diameter and TPI?

73, Yuri Blanarovich, K3BU

974. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 00:26:36 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <443d9abd$0$76686$39cecf19@news.twtelecom.net>
Source record: 61016

David G. Nagel wrote:

> Wes Stewart wrote:
>
>>
>> Responding to no one in particular.
>>
>> This is starting to make me miss the shorter Fractenna threads.
>> Phil, comeonback good buddy.
>
>
>
> They certainly made more sense.
>
> Dave N

Although there is a large difference - this is an arument over how
soemthing that works works. The other was about _whether_ the thing works.

tom
K0TAR

975. Re: JOHN CHIPMAN OWNER OF CHIPMAN RELOCATIONS UNITED VAN LINES MAYFLOWER CATON MOVING & STORAGE likes to make many harassing/harassment phone calls

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 00:39:49 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <o5h%f.405$QP4.21@fed1read12>
Source record: 61017
Cross-posted to: alt.cellular.bluetooth,alt.cellular.attws,alt.cellular.cingular,rec.radio.amateur.antenna,rec.autos.sport.cart

"Howard W3CQH" <hgorden@adelphia.net> wrote in message
news:J-OdnWTCBqWE16DZRVn-pw@adelphia.com...
> Why do you cross post this garbage to everybody? Apparently you don't
have
> a life!
>
>
> "studley the bull" <studleythebull@aol.com> wrote in message
> news:1144813345.585052.29750@t31g2000cwb.googlegroups.com...
> >
> > are we having fun yet wrote:
> >> JOHN CHIPMAN OWNER OF CHIPMAN

In fact, the poster rarely sees our reactions. (Think of the "driveway
drop" circulars
that show up at every home; nobody waits and watches to see you react to
reading them.)

976. Re: Improving FM in building

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 00:47:09 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <hch%f.406$QP4.74@fed1read12>
Source record: 61018

<n3ox.dan@gmail.com> wrote in message
news:1144858162.935757.60290@z34g2000cwc.googlegroups.com...
> It might work OK, especially if the building is really sealed tight to
> RF.
>
> You may want to add a cheap FM preamp with the outside antenna
> connected to the input and the inside antenna connected to the output,
> so that the connection between the antennas has a tad of gain, rather
> than just loss.
>
> Dan
> N3OX
>

This works for GPS. I had a project at China Lake Naval Weapons Center a
few yeards ago, where they pumped GPS through an amp and rebroadcast it in
the lab where they were evaluating a missile guidance syatem.

(It doesn't matter how sure I was that there was no fuel and no warhead in
the missile; I did NOT like walking in front of that thing.)

977. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 00:53:26 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <aih%f.65298$H71.6456@newssvr13.news.prodigy.com>
Source record: 61019

John Popelish wrote:
> If you don't believe me, simulate it with EZNEC. Connect a source to a
> parallel combination of C and R. Record the phase of the current with
> respect to the voltage (the current will lead). Then add a series
> inductance that cancels the capacitance, and the current will be delayed
> till it matches the phase of the applied voltage. Power factor corrected.

The "current will be delayed"? That cannot be, according to
W8JI and W7EL. They say there is no more delay through a 6"
coil than through a 6" wire. That's what the argument is all
about. Instead of the current being delayed, their voltage
jumps ahead in time at greater than the speed of light in
order to correct that power factor.
--
73, Cecil http://www.qsl.net/w5dxp

978. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 01:22:45 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <UoSdnfXRtZLzO6DZnZ2dnUVZ_vednZ2d@adelphia.com>
Source record: 61020

Cecil Moore wrote:
> John Popelish wrote:
>
>> If you don't believe me, simulate it with EZNEC. Connect a source to
>> a parallel combination of C and R. Record the phase of the current
>> with respect to the voltage (the current will lead). Then add a
>> series inductance that cancels the capacitance, and the current will
>> be delayed till it matches the phase of the applied voltage. Power
>> factor corrected.
>
>
> The "current will be delayed"?

Compared to the phase of the current without the inductor being in
series."

> That cannot be, according to
> W8JI and W7EL. They say there is no more delay through a 6"
> coil than through a 6" wire.

You are talking about delay from one end of the coil to the other. I
am talking about delay, compared to the same circuit without the
inductor in place. See the difference?

> That's what the argument is all about.

Not from where I am watching.

> Instead of the current being delayed, their voltage
> jumps ahead in time at greater than the speed of light in
> order to correct that power factor.

Good one. Pull the other.

979. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 01:24:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123ra2kngip1a54@corp.supernews.com>
Source record: 61021

Yuri Blanarovich wrote:
>
> Roy,
> the above are the attempts to illustrate and add some more to understanding
> and reasoning why the current across (alonng) the loading coil, roughly half
> way or 2/3 up the resonant quarter wave radiator is larger at the bottom and
> drops about 40 - 60% at the top. While one side argues that it is (almost)
> the same, we argue that it drops. That is the argument and not detours to
> degrees, phasors, and rest of the mud that was rehashed here.

You still haven't told us who this "side" is that argues that the
current is the same at the bottom and top. I assume it's those unnamed
"gurus" who you haven't identified. It shouldn't be a problem to show
that the other "side" is wrong if it doesn't exist.
>>
> If I remember correctly you inserted the coil at the base and I am not sure
> if it was resonant quarter wave radiator. Can you describe the setup, length
> and frequencies used? You should try to use quarter wave resonant radiator
> with coil about 1/2 to 2/3 up the mast and tell us what the current values
> are. W9UCW has pictures and data measured, we should try to emulate this
> situation, that is the object of controversy. Cecil mentioned cases when
> current can be the same, or lower at the top, or bottom, depending where the
> same coil is placed in relation to the standing wave and current
> distribution on the radiator. Are you denying that this is the case or
> something wrong with W9UCW test setup and results?

You can find my earlier postings at groups.google.com. The results
you're asking about were posted on Nov. 11, 2003. You can find your own
comments about my measurements there also, on the same date.

I'm sorry, but I don't have time to try and model or carefully analyze
W9UCW's results. The results for a toroid show more current difference
than I'd expect, and suspect that's due to the shunt capacitance of the
physically large meters he was using.

Before, you complained because the coil wasn't physically long enough.
Now you want it placed somewhere else along the radiator. Sorry, after
the reaction I got to my previous test, I have no interest at all in
making additional ones.

>
> The controversy is about the claims that the current at the ends of the
> typical loading coil is the same or different in range of 40 -60% drop. Its
> not my theory, it is the reality that we are trying to bring forth and
> correct misconceptions that are obviously floating around since 1953. My
> approximation and explanation (latest) I mentioned is in one of my posts in

> reply to W8JI "arguments" (to do with impedances).

The only posting I see that fits that description is your posting on this thread on April 7. As I read it, you say that as you put a coil higher and higher in an antenna, the inductance required to maintain resonance increases, and the difference in current between the bottom and top of the coil increases as the coil is made larger. I don't see any values or way of calculating them, but don't have any disagreement with the qualitative statements you made there.

[Yuri wrote:]
>>> Again, when applied in modeling programs, wrong assumption will produce
>>> erroneous results, which will be magnified in multielement antenna
>>> designs.
>>> So the "gurus" basically ignore behavior of coil in the standing wave
>>> environment along the loaded radiator, where the current drops from max
>>> at base to zero at the tip, but coil would magicaly resist that, because,
>>> bla, bla, bla.... (see their "reasons")
[I wrote:]
>> Would you name these "gurus" so we can read their postings and see what
>> you're talking about?
>>
[Yuri wrote:]
> Mostly the "equal current camp".

I take that as a "no", you can't name the "gurus". The advantage of arguing against imaginary "gurus" is that you can have them claim anything you want. It shouldn't have taken you so many postings to prove them wrong.

> I have not verified it, but W9UCW claims using ferite inductor and got very
> similar results. I believe your test, you used coil near the base. I will
> run test with different inductors from bugcatcher type, "no good" Hustler,
> to ferite and in different positions.

Then you and Cecil have quite different theories, it seems. His doesn't predict the drop I measured. Those of us who are tired of the endless arguments should sit back and let you and Cecil go at it until you come to an agreement.

> Looks like the size of the coil has small effect on current variation
> (unless high resistance). Position of the coil in relation to current
> distribution along the radiator would cause equal (special case), less on
> the top of coil or more, depending where on the standing wave curve coils is
> located. In our case we are arguing about 2/3 up the resonant radiator.

I don't know who "we" is. The technical theory I subscribe to doesn't require any particular placement of the coil.

> Now with solenoid generation in EZNEC 4.0 it helps to get away from the
> lumped inductance and it shows that there is current drop, reflecting
> situations in question. Also the loading stub produces similar results.
> Cecil showed the cases and with different positions along the current curve,

> demonstrated in EZNEC huge differences in current at the ends of the coil.
> But this is getting strangely ignored and instead we get all kinds of
> "reasons" why it can't be.

I replaced the whip in one of Cecil's models with a lumped RC and got
the same result. Then I eliminated the ground and reduced the current
drop to near zero. I've commented on that on several occasions. That
certainly doesn't constitute "strangely ignoring" Cecil's model.

> I am sorry I dropped out of this due to AOL dropping NG, and I thought that
> reality would be understood by now. Only when Cecil told me that subject
> flared up again and nothing changed, I rejoined the discussions. I think
> really at this point, it is beating the dead horse. I will do the tests and
> write it up. I will try to corellate the tests with modeling in EZNEC. If
> someone denies the reality, that's their choice. I will post the progress on
> my web page.

Let us know when it's available. Hopefully it'll actually happen this
time. Again, I'll be interested in knowing of any significant difference
between modeling and measurement results.

> I can't stomach W8JI "exchanges" any more. No answer to questions or
> following the points, just twist and jive.

Funny, that's just the way most of your postings appear to me and, I'm
sure, to Tom.

> I didn't look it up, but is there way in EZNEC to know or calculate the
> inductance of modeled solenoid? Or better, specify the inductance and let
> the EZNEC "make" the coil of prescribed diameter and TPI?

The answer to your second question is no. To your first, yes. What I've
done is model the inductor in free space with ends extended to the helix
axis (an option when creating it). Put a wire end-to-end down the center
of the coil with a source in the middle. Src Data will show you the
reactance, from which you can get the inductance. This seems to work
reasonably well provided that the frequency is low enough that the coil
is well below self resonance and low enough that it doesn't radiate much
but high enough that NEC-2 doesn't have trouble with the loop size. If
it shows good results in the Average Gain test, it's probably ok.

Roy Lewallen, W7EL

980. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 02:01:54 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <YbidnWDIyvONLKDZnZ2dnUVZ_tWdnZ2d@adelphia.com>
Source record: 61022

Roy Lewallen wrote:
> Mike Coslo wrote:
>
>> Yuri Blanarovich wrote:
>>
>>> Check my article that describes the controversy, shows some proof of
>>> reality and then efforts of the "gurus" to deny it and "reason" why
>>> it can't be so. http://www.k3bu.us/loadingcoils.htm The problem is
>>> that back in 1953 in QST article there was erroneous
>>> conclusion/statement made, which propagated through the books, until
>>> W9UCW measured the current across the loading coils and found that
>>> there is significant drop from one end to the other, and the rest is
>>> (ongoing) history
>>
>>
>> Hmm, certainly it would seem to make sense that:
>>
>>> The current in a typical loading coil in the shortened antennas drops
>>> across the coil roughly corresponding to the segment of the radiator
>>> it replaces.
>>
>>
>> Quote from your page.
>>
>> I would not expect anything else. If the loading coil is making the
>> antenna act like a physically longer antenna, other "qualities" of
>> that simulation are likely to be similar.
>>
>> Is there a reason why the coil would *not* do this?
>
>
> Yes, many, and they've been discussed here at length.

Okay. Seems like a more constructive use of bits than most of this
thread 8^)

> That this concept
> is wrong can and has been shown by theory, modeling, and measurement. I
> made and posted measurements on this newsgroup in November 2003 which
> demonstrated clearly that the presumption is false.

Okay. It looks like we have at least some measurements that differ. Any
idea why that would be?

Do you remember the name of the thread?

> The loading coil isn't making the antenna act like a physically longer
> antenna. In the extreme case of a physically short inductor at the
> feedpoint, it's simply modifying the feedpoint impedance and has no
> effect whatever on the antenna's radiation.

Would the inductor then be best right past the feedpoint? Certainly
having the inductor at the far end, or in the middle seems like a bad
place for it. (not talking about trap antennas)

> As the inductor gets longer,
> it does become some part of the antenna, but adding an inductor which
> resonates, say, a 45 degree physical radiator doesn't make the antenna
> act like a 90 degree physical radiator.

- 73 de Mike KB3EIA -

981. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 03:07:20 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <Ufj%f.82$m_5.69@fe09.lga>
Source record: 61023

"Roy Lewallen" <w7el@eznec.com> wrote

>> K3BU wrote: I can't stomach W8JI "exchanges" any more. No answer to
>> questions or following the points, just twist and jive.
>
> Funny, that's just the way most of your postings appear to me and, I'm
> sure, to Tom.
>

Then there is your answer to who is "gurus" and who is "we".
"Gurus" know that current in loading coil is the same.
"We" know, measured it properly and argue that that is significantly
different.
I am sorry, you are wrong. I tried to follow some stepts to get to the
point, Tom ignores my points and jumps to lecture how, bla, bla...

I am really done here, you guys can believe what you want. Just that reality
doesn't jive with your "can't be".

73 Yuri

982. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 03:09:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123rg6prdklphe0@corp.supernews.com>
Source record: 61024

Mike Coslo wrote:
> Roy Lewallen wrote:
>
>> That this concept is wrong can and has been shown by theory, modeling,
>> and measurement. I made and posted measurements on this newsgroup in
>> November 2003 which demonstrated clearly that the presumption is false.
>
> Okay. It looks like we have at least some measurements that differ.
> Any idea why that would be?

The amount the magnitude of the current drops across an inductor is determined primarily by the amount of inductance and the capacitance from the inductor to ground or the other half of the antenna. This is easily explained by simple lumped constant circuit theory. There's also some variation due to radiation and imperfect coupling between turns. In the extreme case of a very loose helix, coupling is poor and radiation is high, so the helix acts more like a wire than an inductance. This requires a more complex analysis, but that's also in the realm of well known phenomena. With this wide variation in physical possibilities, different results can't be avoided. What some of us have tried to do is explain why the results occur.

I don't know of differing results from the same physical setup, but it could surely happen. Making good measurements isn't a trivial task.

> Do you remember the name of the thread?

Current in antenna loading coils controversy (long). I made two sets of measurements. The second was posted on Nov. 11, 2003 and the first a few days earlier.

>> The loading coil isn't making the antenna act like a physically longer
>> antenna. In the extreme case of a physically short inductor at the
>> feedpoint, it's simply modifying the feedpoint impedance and has no
>> effect whatever on the antenna's radiation.
>
> Would the inductor then be best right past the feedpoint? Certainly
> having the inductor at the far end, or in the middle seems like a bad
> place for it. (not talking about trap antennas)

Generally not, but it depends on several factors. Moving the coil upward increases the radiation resistance of the system, which improves efficiency in the presence of ground loss. However, it also requires a larger coil, so the coil's resistance is greater. But the current at the location of the coil is lower, so overall I^R loss of the coil is often less with the coil somewhere around halfway up. The relative amount of

coil and ground loss, as well as the amount of top loading if any, are all factors in determining which position is best. This is really a separate question, and I don't have varied enough experience with HF mobile setups to be anywhere near an expert. Tom, W8JI, is though. You can take what he says on the subject to the bank.

Roy Lewallen, W7EL

983. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 03:10:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Dij%f.15505$tN3.13651@newssvr27.news.prodigy.net>
Source record: 61025

w8ji@akorn.net wrote:
> An inductance changes the relationship between phase of voltage and
> current, NOT current through the inductance from terminal to terminal.

That's true only for a lumped inductance which doesn't exist
in reality.

> Yuri again distorts fact. What everyone is saying is there can be a
> current change, but it is not caused by standing waves or missing
> antenna area. It is caused by displacement current, and so can have a
> wide range of change in a given antenna.

In the graphic at: http://www.qsl.net/w5dxp/test316.GIF
in the right hand configuration the current at the bottom
of the coil is 1.3 amps and the current at the top of the
coil is 2.1 amps.

Your explaination for more current at the top of the coil
than at the bottom is that 0.8 amps of displacement current
is jumping up from earth ground into the side of the coil
and flowing out the top?

Would you please describe that bit of magic in a little more
detail?
--
73, Cecil http://www.qsl.net/w5dxp

984. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 03:23:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <luj%f.15507$tN3.8447@newssvr27.news.prodigy.net>
Source record: 60926

Roy Lewallen wrote:
> Then you and Cecil have quite different theories, it seems. His doesn't
> predict the drop I measured.

The current can be a DROP or a RISE or EQUAL depending upon
where it is installed in the standing wave environment.

> That
> certainly doesn't constitute "strangely ignoring" Cecil's model.

You have completely ignored the EZNEC results posted at:
http://www.qsl.net/test316.GIF where the current at the top
of the coil is greater than the current at the bottom of the
coil. How would your theory handle a current RISE through a
coil?
--
73, Cecil http://www.qsl.net/w5dxp

985. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 03:32:30 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <iDj%f.15509$tN3.1960@newssvr27.news.prodigy.net>
Source record: 60927

Mike Coslo wrote:
> Would the inductor then be best right past the feedpoint? Certainly
> having the inductor at the far end, or in the middle seems like a bad
> place for it. (not talking about trap antennas)

Here's a graphic that might help: http://www.qsl.net/w5dxp/1WLDIP.GIF

The coil can have a current DROP, a current RISE, or equal currents
depending upon where it is placed in the standing wave system.

Most of the discussion has been about base-loaded mobile antennas.

Everyone have a nice Easter. I'll be away from my computer until
Monday.
--
73, Cecil http://www.qsl.net/w5dxp

986. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 03:44:11 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <fOj%f.1854$az4.127@bgtnsc04-news.ops.worldnet.att.net>
Source record: 60928

Cecil,

I gave you a very specific reference to demonstrate your supposition was incorrect. You came back with nothing but, "Because I say so." You have not offered one shred of backing for your constant Vf argument.

And it is up to ME to further prove something?

I don't think so.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I will retain the entire message below, so that I am not accused of
>> misattribution.
>
>
> Gene, to the best of my knowledge, you have never
> misattributed anything.
>
>> Where did you get this idea that the velocity factor is constant?
>
>
> The equation for velocity factor includes coil diameter,
> turns per inch, and wavelength. Keeping the coil diameter
> constant, the turns per inch constant, and the wavelength
> constant should ensure that the velocity factor is constant.
>
>> Specifically, why is the velocity factor of a resonant coil the same
>> as the velocity factor of a significantly shorter coil? It is pretty
>> well accepted that the inductance of coils does not scale linearly
>> with the length of the coil. Therefore any arguments about based on
>> direct calculation of Vf from L and C would seem to fail to support
>> your model.
>
>
> You are obviously mistaken. If you increase the L by lengthening
> the coil, you have also increased the C by the same percentage.
> The L and C for any unit length are the same no matter how long
> the coil or transmission line is.
>
>> " . . . an approximation for M has been determined by Kandoian and

>> Sichak which is appropriate **for quarter-wave resonance** and is
>> valid for helices . . ."
>
>
> Yes, but if one doesn't change the frequency or the diameter or
> the turns per inch, the approximation should hold since nothing
> in the VF equation changes by shortening the coil. One should be
> able to shorten or lengthen the coil andmaintain the same VF.
>
> Seems it is up to you to prove what you are saying. Please prove
> that the ratio of L to C ratio of a coil changes with length. That
> should be an interesting proof.

987. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 03:46:40 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <AQj%f.1860$az4.1770@bgtnsc04-news.ops.worldnet.att.net>
Source record: 60929

Cecil Moore wrote:
>
> You have completely ignored the EZNEC results posted at:
> http://www.qsl.net/test316.GIF where the current at the top
> of the coil is greater than the current at the bottom of the
> coil. How would your theory handle a current RISE through a
> coil?

Cecil,

Do you suppose that maybe the displacement current can actually work in
either direction? Did someone put a diode in the aether?

73,
Gene
W4SZ

988. New program. COAX_VLF

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 04:40:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <YaGdnZBrj84JS6DZRVnyvQ@bt.com>
Source record: 60930

Now available: Program COAX_VLF

The behaviour of transmission lines at the lower frequencies is more
complex than it is at HF and above. The effects set in sooner at
higher frequencies on low impedance coaxial transmission lines. They
are affected more at higher frequencies than other types of line.

As frequency is reduced below several hundred KHz the impedance Zo
increases, its impedance angle becomes more negative, and the
propagation velocity decreases. Unusual things happen such as
reflection coefficients being greater than unity and the SWR being
greater at the input end of a line than it is at the load end.

At power and audio frequencies Zo can be an order of magnitude greater
than the nominal HF value, and the angle of Zo aproaches -45 degrees.

It is useful to be aware of the magnitude of such effects. With coax
they can be experienced in small ways at frequencies as high as 2 MHz
or more.

Download program COAX_VLF in a few seconds from website below and run
immediately. Filesize = 48 Kilo-bytes. It is both practical and
educational. Try to fathom out how reflection coefficients greater
than unity can arise.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

989. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 05:27:01 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144906021.162617.242800@i39g2000cwa.googlegroups.com>
Source record: 60931

Gene Fuller wrote:
...
> Cecil,
>
> Do you suppose that maybe the displacement current can actually work in
> either direction? Did someone put a diode in the aether?
>
> 73,
> Gene
> W4SZ

Yes, some time earlier today than that exchange, I posted elsewhere in this thread a specific circuit, complete with values, how the same thing is easily accomplished with the infamous ideal lumped components. No standing waves need apply. But of course if one used distributed reactances, one could easily get the same effect, and the analysis can easily be done w/o any reference to standing or travelling waves.

Cheers,
Tom

990. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 06:50:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i5tr32hoo6ebelfh6uh9jh9ea8eao0bbvf@4ax.com>
Source record: 60932

On Wed, 12 Apr 2006 23:07:20 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>I am really done here
Hope triumphs over experience.

991. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 09:30:39 UTC
From: w8ji@akorn.net
Message-ID: <1144920639.132371.257750@z34g2000cwc.googlegroups.com>
Source record: 60933

Roy Lewallen wrote:
> > That this concept
> > is wrong can and has been shown by theory, modeling, and measurement. I
> > made and posted measurements on this newsgroup in November 2003 which
> > demonstrated clearly that the presumption is false.

Mike Coslo wrote:
> Okay. It looks like we have at least some measurements that differ. Any
> idea why that would be?

Yes, because the physical construction of the coil and the antenna changes the capacitance from the inductor to the outside world and the impedance loading the coil. It is the ratio of capaciatnce of the coil to the outside world to the load impedance presented by the whip above the coil that causes or allows any phase difference in current or current level at each end of the coil.

It isn't standing waves, it is missing electrical degrees.

I can take a resonant mobile antenna of basically the same height and construction, change only the coil while maintaining resonance, and have difference of current and phase of current change all over the place.

Try reading:

http://www.w8ji.com/mobile_and_loaded_antenna.htm

there is a link to actual measurements in that text.

> > The loading coil isn't making the antenna act like a physically longer
> > antenna. In the extreme case of a physically short inductor at the
> > feedpoint, it's simply modifying the feedpoint impedance and has no
> > effect whatever on the antenna's radiation.
>
> Would the inductor then be best right past the feedpoint? Certainly
> having the inductor at the far end, or in the middle seems like a bad
> place for it. (not talking about trap antennas)

No. The current in the antenna below the loading coil (or a top hat of sufficent capacitance)is essentially uniform. This increases radiation resistance. Increased radiation resistance can increase efficiency.

See:

http://www.w8ji.com/radiation_resistance.htm

73 Tom

992. Mutual capacitance of an 8 conductor system

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 12:19:45 UTC
From: Sriram <sriram2679@gmail.com>
Message-ID: <1144930785.151800.313130@j33g2000cwa.googlegroups.com>
Source record: 60934

Hi,

Is there a derivation for calculating mutual capacitance and mutual inductance in an 8 conductor system? I did manage to find one for a 4 conductor system but unable to extend that to 8 conductors. Any suggestions on books or papers for reference would be of great help. Thanks in advance.

Sriram

993. Thomas & Betts UV Resistant Tie Wraps: Any Experiences With For Out Of Door Usage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 13:22:31 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <BPednWi15vkNzaPZRVn-pg@comcast.com>
Source record: 60935

Hi,

Was wondering if anyone has any experience using the "Premium" Thomas &
Betts, Black, "UV-Resistant"
nylon tie wraps out of doors ?

e.g., do they become brittle after a fer years due to very cold temps, or UV
?

Or, do they really hold up well, etc. ?

Thanks,
Bob

994. Re: Thomas & Betts UV Resistant Tie Wraps: Any Experiences With For Out Of Door Usage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 13:38:32 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <e1lk8pmbu1@f04n12.cac.psu.edu>
Source record: 60936

"Robert11" <rgsros@notme.com> wrote in message
news:BPednWi15vkNzaPZRVn-pg@comcast.com...
> Hi,
>
> Was wondering if anyone has any experience using the "Premium" Thomas &
> Betts, Black, "UV-Resistant"
> nylon tie wraps out of doors ?
>
> e.g., do they become brittle after a fer years due to very cold temps, or
> UV ?
>
> Or, do they really hold up well, etc. ?
>
> Thanks,
> Bob
>
>

Hi Bob:

I have no experience with that brand, but I've used UV resistant (black tie warps) for years.
The feedlines on my tower are held up with them and I've noticed no degradation in them for the last 4 years. For what its worth, in the past I've used Scotch #33 black electrical tape and it has held hard-line and coax to my tower for 5 to 6 years with no problem. Some professionals I know use electrical tape for all but the largest runs of hard-line.

--
John Passaneau
Penn State University
Physics Dept.
jxp16@psu.edu

995. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 13:42:35 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <tzs%f.870$5I7.404@fe12.lga>
Source record: 60937

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:i5tr32hoo6ebelfh6uh9jh9ea8eao0bbvf@4ax.com...
> On Wed, 12 Apr 2006 23:07:20 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>>I am really done here
> Hope triumphs over experience.

yep, "hope" with pictures, measurements and descriptions (no good)
vs. "experience" = it can't be, but, but, but... ("proof")
how does the coil have higher current at the top if it loses radiation
through capacitance to W8JI? "Experienced" silencio!!! There is your sign!

Richard, keep up sticking needles, that really sheds light on the subject

Happy Easter to everyone, even unbelievers!

Yuri da BUm

996. Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 14:09:53 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <PYs%f.12664$bm6.7806@fed1read04>
Source record: 60938

Since aluminum is non magnetic, I would assume a mag-mount vertical would not couple properly to a aluminum ground plane.

Thoughts ?
--
CL -- I doubt, therefore I might be !

997. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 14:44:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <noos32p3qbsd63t8g9tlk26aucgpbdmkdd@4ax.com>
Source record: 60940

On Thu, 13 Apr 2006 09:42:35 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>Happy Easter to everyone, even unbelievers!

Hi Yuri,

I was at Seder last night. Are you calling me an unbeliever?

73's
Richard Clark, KB7QHC

998. Re: HF discone ?????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 14:44:18 UTC
From: stargatesg1 <nospam@here.net>
Message-ID: <6tt%f.10580$8g3.4793@trnddc02>
Source record: 60939

I actually had the chance to use one of these at a Titan II missile site
in Wichita, KS. when I was in the USAF back in the 80's.
I had been dispatched out to the base to do some maintenance on the VHF/UHF
radio equipment they used, and our departure was delayed for awhile due to a
snow storm.
I asked the site commander if I could use the HF gear to make a few
amateur radio contacts and he gave me permission. WOW what good signal
reports!
I was running the full legal limit on 75 and 40 meters through it and
whatever I could hear I could work. I made about a dozen contacts and the
commander must have gotten a little worried and ordered me to stop.
I guess I was lucky he let me make any contacts at all considering the
situation. Nice memory:-)
Anyway, the antenna was HUGE to say the least! it was made of cable for
the skirt and large tubing for the hat radials. I would guess about
100-150'+ across the bottom of the skirt. I haven't thought about that in
years. Thanks for reminding me of those times:-) Loved being in the Air
Force!

RoD
KD0XX

"Spock" <starbase01@optusnet.com.au> wrote in message
news:443c671f$0$10677$afc38c87@news.optusnet.com.au...
> Hello Everyone
> I saw somewhere that the us navy used on some of it's ships hf discone
> antennas. Were they any good? are they practical? what are the pros and
> cons? are they used commercially?
>
> Than you.
>
>
>
>
> ---
> avast! Antivirus: Outbound message clean.
> Virus Database (VPS): 0615-1, 11/04/2006
> Tested on: 12/04/2006 12:04:06 PM
> avast! - copyright (c) 1988-2005 ALWIL Software.
> http://www.avast.com
>
>
>

999. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 14:45:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <uvos329cssntcbd1r3baehmcsd1la2d20p@4ax.com>
Source record: 60941

On Thu, 13 Apr 2006 07:09:53 -0700, "Caveat Lector"
<UALLBeware@9984reader.com> wrote:

>Thoughts ?

The antenna will probably fall over at 20-30 MPH if that's what you
mean.

73's
Richard Clark, KB7QHC

1000. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 14:57:19 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <iFt%f.13808$bm6.2286@fed1read04>
Source record: 60942

Ha - indeed Richard -- no for home use.
Would the aluminum act as a proper ground plane ?
Like a steel sheet would.

--
CL -- I doubt, therefore I might be !

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:uvos329cssntcbd1r3baehmcsd1la2d20p@4ax.com...
> On Thu, 13 Apr 2006 07:09:53 -0700, "Caveat Lector"
> <UALLBeware@9984reader.com> wrote:
>
>>Thoughts ?
>
> The antenna will probably fall over at 20-30 MPH if that's what you
> mean.
>
> 73's
> Richard Clark, KB7QHC

1001. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 14:59:06 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <cvqdncRoDt-l-qPZnZ2dnUVZ_vydnZ2d@comcast.com>
Source record: 60943

Aluminum works fine as a counterpoise.

However, The magnetic feature of the mag mount would most likely be inoperative. Magnets don't like Aluminum!!

Caveat Lector wrote:
> Since aluminum is non magnetic, I would assume a mag-mount vertical would
> not couple properly to a aluminum ground plane.
>
> Thoughts ?

1002. anyone who have used Chipcons 2431, with location-based engine algo?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 14:59:32 UTC
From: mazerom <electromagnetic377@yahoo.com>
Message-ID: <1144940372.286908.235280@i39g2000cwa.googlegroups.com>
Source record: 60944

. . .

1003. Re: Improving FM in building

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 15:05:52 UTC
From: fmmck@aol.com
Message-ID: <fmmck-1304061105520001@ac8c1454.ipt.aol.com>
Source record: 60945

In article <eXBBLPMRmXPEFwgK@g3ohx.demon.co.uk>, Ian Jackson
<IanJackson@REMOVE-THIS-BITg3ohx.demon.co.uk> wrote:

> Irv,
> Have you any idea about the lengths which cable TV operators go to to
> keep their networks RF-tight (ingress and egress)? Feed an outlet into
> antenna? Maybe not such a good idea!!

Ian-

In that case, why not get the Cable TV people to install it for you? They
can use an isolation amplifier that will prevent outside signals from
being fed back into their system.

Fred

1004. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 15:40:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <22ss32pfu81c2e8bgdnre49jaiubkc906f@4ax.com>
Source record: 60946

On Thu, 13 Apr 2006 07:57:19 -0700, "Caveat Lector"
<UALLBeware@9984reader.com> wrote:

>Ha - indeed Richard -- no for home use.
>Would the aluminum act as a proper ground plane ?
>Like a steel sheet would.

Hi OM,

Sure, to the same degree of your having enough metal to resonate it.
Sometimes even that doesn't matter.

73's
Richard Clark, KB7QHC

1005. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 15:49:06 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <Spu%f.15056$bm6.613@fed1read04>
Source record: 60947

Thanks folks
Someone posed the question to me and I thought I'd better check with the
experts.

--
CL -- I doubt, therefore I might be !

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:22ss32pfu81c2e8bgdnre49jaiubkc906f@4ax.com...
> On Thu, 13 Apr 2006 07:57:19 -0700, "Caveat Lector"
> <UALLBeware@9984reader.com> wrote:
>
>>Ha - indeed Richard -- no for home use.
>>Would the aluminum act as a proper ground plane ?
>>Like a steel sheet would.
>
> Hi OM,
>
> Sure, to the same degree of your having enough metal to resonate it.
> Sometimes even that doesn't matter.
>
> 73's
> Richard Clark, KB7QHC

1006. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 15:54:09 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144943649.456530.196710@i39g2000cwa.googlegroups.com>
Source record: 60948

Yuri Blanarovich wrote:
...
> yep, "hope" with pictures, measurements and descriptions (no good)
> vs. "experience" = it can't be, but, but, but... ("proof")
> how does the coil have higher current at the top if it loses radiation
> through capacitance to W8JI? "Experienced" silencio!!! There is your sign!

...

> Yuri da BUm

Hi Yuri,

Yesterday I posted in this thread a very simple ideal lumped-circuit specific example of how it happens. Have a look for that. Consider the capacitance in that lumped circuit to be part and parcel of the coil in the distributed case, so you can't in the distributed case separate its current from the coil current; all you see is the current going in the "input" terminal (1.3 amps, per Cec's request) and the current coming out the "output" terminal (2.1 amps) into a load impedance. If you don't overconstrain the problem (that is, if you don't specify anything beyond reasonable input and output currents and load impedance) I can show you a lumped circuit with only series inductance, series resistance to represent loss if you wish, and shunt capacitance, that will do the same thing with respect to terminal currents.

It really is not a stretch at all to get more current coming out than going in. It WOULD be a stretch to have more power dissipated in the load than you put in the network, but that's not what's happening, of course.

Is that all specific enough for you, or would you like to give me a challenge with a different set of input and output currents and load impedance (which agrees with what you might actually observe in an antenna-with-loading-coil situation, and not some ridiculous impossible set)? I'll even embed the capacitance in the circuit so you won't be able to say you could measure its current separately from that of the coil. It's a somewhat pointless exercise, but good mental stimulation, like working a crossword puzzle, so I'm up for it.

(I trust you didn't really mean that the coil loses radiation _directly_ to W8JI in your posting quoted above! If every loading coil in the world did that, poor Tom would be getting pretty warm, I suppose. In any event, PLEASE UNDERSTAND THIS: the displacement current from the coil is mostly NOT losing power to the outside world.

Like current in more tangible capacitors, it represents stored energy
that's put into an electric field in part of the cycle, only to be
almost all returned in another part.)

Cheers,
Tom

1007. Magnetic antenna base in pickup truck

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 16:30:01 UTC
From: WØCBF <w0cbf@yahoo.com>
Message-ID: <1144945801.830133.244250@v46g2000cwv.googlegroups.com>
Source record: 60949

Hello,

I have a Ranger pickup with a spray in Line X bed liner. I am interested using a magnetic base for a Hamstick HF antenna possibly one of the brands that have 3 magnets in a triangle. Has anyone had any luck in using such an arrangement. I know a VUF/UHF magnetic base antenna will work in the bed liner but of course this is not as long and stiff as the Ham Stick.

Any help or opinions are welcome.

73's
Chuck
WØCBF

1008. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 16:32:20 UTC
From: richardharrison@webtv.net
Message-ID: <6093-443E7D14-1029@storefull-3254.bay.webtv.net>
Source record: 60950

Tom, W8JI wrote:
"It isn`t standing waves, it is missing electrical degrees."

That could be sarcasm because it certainly could be standing waves.

In a coil the RF signal travels as a surface wave around the turns of the coil (helix) at about the velocity of light. Hopper`s rule says this is about one foot in a billionth of a second (one nanosecond).

Self inductance can`t magically induce the signal in one end of a coil instantaneously into the opposite end of the coil. Here`s why. Current in the coil induces voltage and current lags the applied voltage by 90-degrees (1/4 of the time required for a complete cyclr). That`s a delay.

Antenna systems produce a reflection from the open-circuit at the tip of an antenna. The incident wave reaching the tip reverses its direction becoming the reflected wave, traveling in the opposite direction from the incident wave. You likely have seen the interference pattern produced by incident and reflected waves on a transmission line in a book. The same pattern starts at the tip of an antenna not terminated in its Zo.

At certain points on the signal path the voltages in the two waves will be in phase and will add, while at other points they will be out of phase and subtract. The points along the path where the two voltages are in phase are points of maximum voltage and minimum current and are spaced one-half wavelength apart. The points along the path where the two voltages are 180-degrees out of phase are points of minimum voltage and maximum current and are also spaced one-half wavelength apart. The distance between alternate points is one-quarter wavelength.

Coil, wire, free-space, whever you have an incident wave and its reflection on a path, you will get this interference pattern on a conductor. So, a loading coil is going to have variations of voltage and current caused by an energy reflection with or without coupling to the rest of the universe.

Best regards, Richard Harrison, KB5WZI

1009. Re: Thomas & Betts UV Resistant Tie Wraps: Any Experiences With For Out Of Door Usage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 17:13:59 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97A46890D241Espectrumhogstarbandn@198.186.192.196>
Source record: 60951

"Robert11" <rgsros@notme.com> wrote in
news:BPednWi15vkNzaPZRVn-pg@comcast.com:

> Hi,
>
> Was wondering if anyone has any experience using the "Premium" Thomas
> & Betts, Black, "UV-Resistant"
> nylon tie wraps out of doors ?
>
> e.g., do they become brittle after a fer years due to very cold temps,
> or UV ?
>
> Or, do they really hold up well, etc. ?

My experience with the black UV resistant ties from many manufacturers is that they do last years in direct sunlight. ... don't even compare with white ties that will degredate within a single year.

Also, a Blue colored tie has been available for some time that is supposedly guarantied to last up to 15 years outdoors. Having used them in years past, it does appear to be true... although they are quite expensive. I forget the manufacturer.

In years past many techs have just used short lengths of insulated 12guage solid wire to hold feedlines to a tower. This is still a valid way to go.... cheaper than ties, and they last very long, too.

Ed K7AAT

1010. Source code of program COAX_VLF

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 19:18:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <K8adnXeR_Mf_OaPZnZ2dnUVZ8qednZ2d@bt.com>
Source record: 60952

I have made available from my website the source code of program
COAX_VLF. It may be of interest to transmission line addicts.

Regarding the mathematics involved with the calculations you will not
find any references in your Bibles on which you appear to depend so
much.

But you may, at least, judge from the comments alongside the code what
is involved. That much may be rather obvious.

Roy and others have been criticising me for years about not disclosing
what's behind my programs in the hope of inducing me to disclose the
trade secrets. There are no secrets. Just common sense.

Well Roy, now you have it all. What do you make of it? Can you make
any sense out of it? Don't expect me to spend the next few years
trying to educate you. I havn't the time to spare. In any case I
should expect to be paid at the rate of 100 US$ per hour.

My programs are free to USA citizens. Make what use of them as you
will. And don't quibble about them on the grounds that they are
founded merely on the opinions of a foreigner.

"Patriotism is not enough" - Nurse Edith Cavell.

Reg.

1011. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 19:30:12 UTC
From: w8ji@akorn.net
Message-ID: <1144956612.522290.68020@j33g2000cwa.googlegroups.com>
Source record: 60953

Yuri Blanarovich wrote:
> vs. "experience" = it can't be, but, but, but... ("proof")
> how does the coil have higher current at the top if it loses radiation
> through capacitance to W8JI? "Experienced" silencio!!! There is your sign!
> Yuri da BUm

Yuri,

It is so obvious to anyone experienced with antenna tuners how that can happen I really dodn't think it requires an answer at all.

It is possible to build a "current step up network", or a "current step down network" with two or more reactances, one in series and one in shunt.

What it is NOT possible to do is make a coil change current without that third path to the outside world. Standing waves will not do it, missing antenna degrees will not do it.

Look at a simple L network when you have time, or more closely an L/C/L T network. You will find all laws of charge conservation are met. The current at any junction of one source path into two other branches always totals zero (current in balances currents out).

The antenna is no different. The loading coil in a normal antenna mode might have a somewhat large phase shift in current of the coil has considerable shunt capacitance to the outside world or it might have almost none. This has NOTHING to do with standing waves causing the difference, or missing antenna degrees causing the difference.

There isn't anything mystical or magical about any of this. The only problem is Cecil's theory, Barry's theory, and your idea doesn't fit all systems, and the models and workings presented by Reg, Roy, Tom, Ian, Gener, and others does work in **every** situation.

I can make a mobile antenna that is resonant, change nothing but the coil, and have a mobile antenna that is exactly the same size and still resonant with different currents and phase of currents at both ends of the loading coil. I can do this simply by changing the coil's capacitance to the outside world.

I can prove this.

73 Tom

1012. Re: Source code of program COAX_VLF

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 20:04:22 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <jnbt32dm1dtpp02pflppkjm04plc9n5oj0@4ax.com>
Source record: 60954

Thank yoy,

de W8CCW
On Thu, 13 Apr 2006 20:18:39 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>I have made available from my website the source code of program
>COAX_VLF. It may be of interest to transmission line addicts.
>
>Regarding the mathematics involved with the calculations you will not
>find any references in your Bibles on which you appear to depend so
>much.
>
>But you may, at least, judge from the comments alongside the code what
>is involved. That much may be rather obvious.
>
>Roy and others have been criticising me for years about not disclosing
>what's behind my programs in the hope of inducing me to disclose the
>trade secrets. There are no secrets. Just common sense.
>
>Well Roy, now you have it all. What do you make of it? Can you make
>any sense out of it? Don't expect me to spend the next few years
>trying to educate you. I havn't the time to spare. In any case I
>should expect to be paid at the rate of 100 US$ per hour.
>
>My programs are free to USA citizens. Make what use of them as you
>will. And don't quibble about them on the grounds that they are
>founded merely on the opinions of a foreigner.
>
>"Patriotism is not enough" - Nurse Edith Cavell.
>----
>Reg.
>
John Ferrell W8CCW

1013. Re: Thomas & Betts UV Resistant Tie Wraps: Any Experiences With For Out Of Door Usage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 21:19:41 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <Nfz%f.65450$H71.5188@newssvr13.news.prodigy.com>
Source record: 60955

Black tie wraps do definately hold up longer than regular tie wraps, but
will still give up after several years. Used to use them for Telephone
cables, as well as coax. Wish I remembered the brand name , but if you
Permanent ties, there is a make of METAL- plastic coated ties, that 1) last
forever, and 2), can be reused. Try Greybar Electric , and W.W.
Grainger. Tiewraps are also available in different colors, (they were
used to mark multi -pair telephone cables, in 25 pair bunches), which
are great for clean installs of wireing, in vehicles (blend in with the
vehicle colors), makeing them nearly invisible.
As info, Jim NN7K

Robert11 wrote:
> Hi,
>
> Was wondering if anyone has any experience using the "Premium" Thomas &
> Betts, Black, "UV-Resistant"
> nylon tie wraps out of doors ?
>
> e.g., do they become brittle after a fer years due to very cold temps, or UV
> ?
>
> Or, do they really hold up well, etc. ?
>
> Thanks,
> Bob
>
>

1014. Re: Magnetic antenna base in pickup truck

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 23:04:27 UTC
From: "M.M." <nobody@nowhere.com>
Message-ID: <_NA%f.11449$iU2.11096@fed1read01>
Source record: 60956

Wï¿½CBF wrote:
> Hello,
>
> I have a Ranger pickup with a spray in Line X bed liner. I am
> interested using a magnetic base for a Hamstick HF antenna possibly one
> of the brands that have 3 magnets in a triangle. ...

I tried that with my Ranger. Didn't work too well. Never could get a decent swr on the Hamstick (10M). I finally bought one of those mounts that goes in the stake pocket and it worked great. I think the guy advertises in QST. They're about the same price as one of those mag mounts but get the antenna up out of the bed. If you can't find the ad, I'll sell you mine since I don't use it any more (gave the Ranger to my kid).

73... Mark AA7TA

1015. Re: HF discone ?????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 23:09:36 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <QSA%f.4179$sq5.618@newsread2.news.atl.earthlink.net>
Source record: 60957

"Spock" <starbase01@optusnet.com.au> wrote in message
news:443c671f$0$10677$afc38c87@news.optusnet.com.au...
> Hello Everyone
> I saw somewhere that the us navy used on some of it's ships hf discone
> antennas. Were they any good? are they practical? what are the pros and
> cons? are they used commercially?
>
> Than you.
>
>
>
> ---
> avast! Antivirus: Outbound message clean.
> Virus Database (VPS): 0615-1, 11/04/2006
> Tested on: 12/04/2006 12:04:06 PM
> avast! - copyright (c) 1988-2005 ALWIL Software.
> http://www.avast.com
>
>
>
While in SAC (Strategic Air Command) I was assigned to Lockbourne AFB in
Ohio. We had two of the super large HF Discones. Took up several acres of
real estate as I remember...Not a good choice for Field Day.

Basic unity gain 3 to 30. Worked great. However the two Rhombics beat them
out hands down. And YES I did play on the ham bands with them. And
that's another story.

Dan/W4NTI

1016. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 23:17:13 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <443edbfa$0$1014$39cecf19@news.twtelecom.net>
Source record: 60958

Richard Clark wrote:

> On Thu, 13 Apr 2006 09:42:35 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>
>>Happy Easter to everyone, even unbelievers!
>
>
> Hi Yuri,
>
> I was at Seder last night. Are you calling me an unbeliever?
>
> 73's
> Richard Clark, KB7QHC

Unfortunately Richard, to many, including some I am acquainted with, you would be considered much worse than that. Minnesota is not as broad minded as they like to pretend. Religious hangings weren't that long ago here.

And, as the grandson of Polish Jews who, for some unknown reason, hid their ancestry to the point where I was raised Catholic, I am obviously conflicted! ;)

tom
K0TAR

1017. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 23:35:42 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144971342.258949.214160@e56g2000cwe.googlegroups.com>
Source record: 60959

(Continuing the basenote drift, since the basenote thread is pretty
much a mess anyway...)

So it's not clear to me who might be calling whom an unbeliever. Both
Christians and Jews celebrate seder. Maybe it would be those of some
other faith? It's interesting to me--and sad--that so many whose
religion teaches that God is all-powerful and too great to be known
fully by any person are intolerant of others whose religions teach just
the same thing. The intolerance seems as common between sects of
nominally the same religion as between religions. If you can't ever
fully know your god, who are you to say it's not the same god as the
one someone else worships differently, or as someone else worships as a
set of gods?

Hey, we might as well be discussing religion as loading coils...

Ducking,
Tom

Tom Ring wrote:
> Richard Clark wrote:
>
> > On Thu, 13 Apr 2006 09:42:35 -0400, "Yuri Blanarovich"
> > <K3BU@optonline.net> wrote:
> >
> >
> >>Happy Easter to everyone, even unbelievers!
> >
> >
> > Hi Yuri,
> >
> > I was at Seder last night. Are you calling me an unbeliever?
> >
> > 73's
> > Richard Clark, KB7QHC
>
> Unfortunately Richard, to many, including some I am acquainted with, you
> would be considered much worse than that. Minnesota is not as broad
> minded as they like to pretend. Religious hangings weren't that long
> ago here.
>
> And, as the grandson of Polish Jews who, for some unknown reason, hid
> their ancestry to the point where I was raised Catholic, I am obviously
> conflicted! ;)
>

> tom
> K0TAR

1018. Re: Thomas & Betts UV Resistant Tie Wraps: Any Experiences With For Out Of Door Usage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 23:53:10 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97A4AC3F5AF7Dspectrumhogstarbandn@198.186.192.196>
Source record: 60960

> Black tie wraps do definately hold up longer than regular tie wraps,
> but will still give up after several years. Used to use them for
> Telephone cables, as well as coax. Wish I remembered the brand name ,

I'll bet Panduit was the likely name for them! They are one of the larger makers of all kinds of ties, plastic, metal, etc. I used them for decades. Do a Google search for Panduit Tie wrap and see what turns up.

Ed K7AAT

1019. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-13 23:59:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <6a2dnRk-Vu_Ue6PZnZ2dnUVZ8s6dnZ2d@bt.com>
Source record: 60961

Wot's seder?

Can one drink wine to excess?

If so, can I join the club?

Reg

1020. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 00:10:56 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1144973456.150901.210670@g10g2000cwb.googlegroups.com>
Source record: 60962

Oh, dear, Reg. We've driven you to drink, eh?

Can you continue to talk (reasonably coherently) after you've been
drinking to excess??

;-/
one of the Toms
may break out some Merlot shortly...

1021. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 00:24:35 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <baGdnefZDJcidqPZnZ2dnUVZ_vidnZ2d@adelphia.com>
Source record: 60963

Richard Clark wrote:
> On Mon, 10 Apr 2006 16:04:56 -0400, Michael Coslo <mjc5@psu.edu>
> wrote:
>
>
>>Not that I could fan the flames any more anyhow, but just what was the
>>original discussion about anyhow?
>
>
> Hmmm, Mike, I bet you didn't find a pony in that pile of "responses"
> did you?

I learned something. Not exactly what I was asking about tho'

- 73 de Mike KB3EIA -

1022. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 00:35:10 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <dcGdnT0Lh6-nc6PZnZ2dneKdnZydnZ2d@adelphia.com>
Source record: 60964

Tom Donaly wrote:
> Reg Edwards wrote:
>
>> "K7ITM" wrote
>>
>>
>>> W8JI-Tom, Tom
>>> Donaly, Ian White, Roy Lewallen, Gene Fuller, Reg Edwards, I, and
>>> others I can think of are NOT, repeat NOT, absolutely NOT, most
>>> definitely NOT, talking about a lumped-circuit model.
>>
>>
>> ==
>>
>> I do wish you would't take my name in vain about what I might have
>> said or not said. I have in fact said little or nothing about lumped
>> circuits or anything else in this stupid, ridiculous argument. Please
>> don't drag me down to your level.
>> ----
>> Reg Edwards.
>>
>>
>
> If the argument is that ridiculous, why do you continue
> to read it?

Morbid curiosity is what keeps me reading it!

This thread reminds me of the time at lunch in school, I put $5 in the jukebox in the lunchroom. I continually pushed the buttons to play "On the Cover of the Rolling Stone", the goofy song by Dr. Hook and the Medicine show. After the 5th repeat, the kids would alternately groan and laugh with each successive play. But most of them stuck around to see just how many times the idiot would play the same song. (turns out 50 - at a dime a pop)

Some of us are now the students, listening to other people sing a different version of "On the Cover of the Rolling Stone".

- 73 de Mike KB3EIA -

1023. Re: Source code of program COAX_VLF

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 00:41:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <123trtlt9p7jea7@corp.supernews.com>
Source record: 60965

Reg Edwards wrote:
> . . .
> Roy and others have been criticising me for years about not disclosing
> what's behind my programs in the hope of inducing me to disclose the
> trade secrets. There are no secrets. Just common sense.
> . . .

There you go again, Reg, making things up and presenting them as fact. I challenge you to cite a single example of my criticizing you for not disclosing your source code.

I have, on the other hand, criticized you several times for lying. Consider this another one.

Roy Lewallen, W7EL

1024. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 02:03:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4g0u321ov9sfln29ii4cc19nihjk9riek8@4ax.com>
Source record: 60966

On Fri, 14 Apr 2006 00:59:37 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Wot's seder?
>
>Can one drink wine to excess?

At least four times. Get to act and sing too.

>If so, can I join the club?

I was asked. Weren't you?

1025. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 02:33:06 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <443f09e2$0$1008$39cecf19@news.twtelecom.net>
Source record: 60967

K7ITM wrote:

> (Continuing the basenote drift, since the basenote thread is pretty
> much a mess anyway...)
>
> So it's not clear to me who might be calling whom an unbeliever. Both
> Christians and Jews celebrate seder. Maybe it would be those of some
> other faith? It's interesting to me--and sad--that so many whose
> religion teaches that God is all-powerful and too great to be known
> fully by any person are intolerant of others whose religions teach just
> the same thing. The intolerance seems as common between sects of
> nominally the same religion as between religions. If you can't ever
> fully know your god, who are you to say it's not the same god as the
> one someone else worships differently, or as someone else worships as a
> set of gods?
>
> Hey, we might as well be discussing religion as loading coils...
>
> Ducking,
> Tom

No, it's just that certain groups of Xians, not a majority but getting
too populous for my taste, seem to think they are the be all end all,
and everyone else is going to HELL, even other Xians, especially
Catholics. And those that aren't Xian, fuggetaboutit, they are all
damned even if they are Good Samaritans and kinder than Mother Theresa,
because they don't belive in the RIGHT THINGS.

tom
K0TAR

1026. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 04:27:47 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <8xF%f.477$QP4.476@fed1read12>
Source record: 60968

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:PYs%f.12664$bm6.7806@fed1read04...
> Since aluminum is non magnetic, I would assume a mag-mount vertical would
> not couple properly to a aluminum ground plane.
>
> Thoughts ?
> --
> CL -- I doubt, therefore I might be !
>\

Not to worry. All-aluminum antennas are quite practical, as it is the conductivity of the counterpoise/radials that makes it work. Also, please consider the many vertical antennas working off buried copper wires for their ground plane.

If you need magnetic properties on a large aluminum surface (roof?), then cement a small sheet of steel to the aluminum with any handy adhesive. NOT stainless, though; it's generally non-magnetic.

1027. Re: HF discone ?????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 10:46:37 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <js6dneYH5asf4KLZRVn-rA@adelphia.com>
Source record: 60969

Some large diskcones:
http://www.kh6bb.org/photos2.html
http://www.globalsecurity.org/military/library/policy/navy/nrtc/14092_ch2.pdf
http://images.google.com/imgres?imgurl=http://www.arizona-am.net/TUCSON/N7GV/disconegv1.jpg&imgrefurl=http://www.arizona-am.net/TUCSON/N7GV/n7gv.html&h=640&w=480&sz=35&tbnid=f1F-KFxm_u-g8M:&tbnh=135&tbnw=101&hl=en&start=76&prev=/images%3Fq%3Ddiscone%26start%3D60%26svnum%3D10%26hl%3Den%26lr%3D%26rls%3DRNWE,RNWE:2004-45,RNWE:en%26sa%3DN

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv

-
"Spock" <starbase01@optusnet.com.au> wrote in message
news:443c671f$0$10677$afc38c87@news.optusnet.com.au...
> Hello Everyone
> I saw somewhere that the us navy used on some of it's ships hf discone antennas. Were
they any good? are they practical? what are
> the pros and cons? are they used commercially?
>
> Than you.
>
>
>
> ---
> avast! Antivirus: Outbound message clean.
> Virus Database (VPS): 0615-1, 11/04/2006
> Tested on: 12/04/2006 12:04:06 PM
> avast! - copyright (c) 1988-2005 ALWIL Software.
> http://www.avast.com
>
>
>

1028. Hidaka VS33 antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 12:35:10 UTC
From: Jae <vk3cvf@iprimus.com.au>
Message-ID: <443f96ff$1_1@news.iprimus.com.au>
Source record: 60970

Can SKS help me out with the spacings for traps on this antenna ?. Have an unassembled antenna that I am trying to rebuild.

Regards
VK3CVF

John
Melbourne...

1029. A warning!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 14:02:18 UTC
From: Wilder Scott <wilderscott@charter.net>
Message-ID: <IXN%f.11$VD5.5@fe02.lga>
Source record: 60971

I think Bush and his administration probably
had better turn their attention to the U.S. and
forget about Iraq & Iran, or we're DONE FOR! Check this out! Pat

http://halturnershow.com/aztlan.caps.wmv

1030. Re: A warning!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 16:28:47 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <35Q%f.38$yQ.26@trnddc07>
Source record: 60972

Wilder Scott wrote:
> I think Bush and his administration probably
> had better turn their attention to the U.S. and
> forget about Iraq & Iran, or we're DONE FOR! Check this out! Pat
>
> http://halturnershow.com/aztlan.caps.wmv
>
>
>

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The requested document was not found on this server.

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1031. APRSPoint special!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 17:07:40 UTC
From: "hxc98@yahoo.com" <hxc98@yahoo.com>
Message-ID: <1145034459.989490.292670@j33g2000cwa.googlegroups.com>
Source record: 60973

APRSPoint is the latest APRS implementation that integrates seamlessly with mappoint to allow you to track anyone on a street level detailed map. It handles imput from RF and internet feeds, and works with Kenwood radios with built-in TNC's in an easy to use interface. It is considered to be the most stable and intuitive, and ideal for first time users. We are offerring a special discount right now. Please visit http://www.aprspoint.com for details. Thanks.

1032. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 18:27:59 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <uNR%f.786$MM6.80@bignews3.bellsouth.net>
Source record: 60974

"Caveat Lector" <UALLBeware@9984reader.com> wrote in message
news:PYs%f.12664$bm6.7806@fed1read04...
> Since aluminum is non magnetic, I would assume a mag-mount vertical would
> not couple properly to a aluminum ground plane.
>
> Thoughts ?
> --
> CL -- I doubt, therefore I might be !

I tried this on a 2M antenna and it didnt work so well. My theory was that since the antenna was not firmly attached to the Al then the capacitve coupling between the base of the antenna and the Al groundplane was off. Fixed the problem by soldering radials to a coffee can lid and placing the antenna on this.

1033. Re: A warning!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 19:46:11 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <e1ou63$n98$2@engnntp2.cig.mot.com>
Source record: 60826

Doesn't matter. Site unacceptable anyway. While there may be many on this group who understand the situation we are in with Georgie Porgie, this isn't the place to post nor give those doing so any reason to continue... Steve N.

"John - KD5YI" <groups5munge@verizon.net> wrote in message news:35Q%f.38$yQ.26@trnddc07...
> Wilder Scott wrote:
> > I think Bush and his administration probably
> > had better turn their attention to the U.S. and
> > forget about Iraq & Iran, or we're DONE FOR! Check this out! Pat
> >
> > http://halturnershow.com/aztlan.caps.wmv
> >
> >
> >
>
>
> Not Found
> The requested document was not found on this server.
>
> Web Server at halturnershow.com

1034. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 19:51:27 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <e1oufvnio2@engnntp2.cig.mot.com>
Source record: 60975

"jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net> wrote in message
news:uNR%f.786$MM6.80@bignews3.bellsouth.net...
>
> "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
> news:PYs%f.12664$bm6.7806@fed1read04...
> > Since aluminum is non magnetic, I would assume a mag-mount vertical
would
> > not couple properly to a aluminum ground plane.
> >
> > Thoughts ?
> > --
> > CL -- I doubt, therefore I might be !
>
> I tried this on a 2M antenna and it didnt work so well. My theory was that
> since the antenna was not firmly attached to the Al then the capacitve
> coupling between the base of the antenna and the Al groundplane was off.
> Fixed the problem by soldering radials to a coffee can lid and placing the
> antenna on this.
>
>

Aluminum is a decent conductor and as a result, it will work. Possibly, the
Lack of the magnetic attractive force was not pulling the magnet very close
or firmly to the plate. This could be helped by putting something on the
bottom of the aluminum / aluminium to get some force and closer spacing,
such as another magnet. You can also generate a lot of posts / re-posts on
the operating theory of mag mount antennas and what this capacitance does...
73, Steve, K9DCI
I tried to maintain a global flavour...

1035. Re: Mutual capacitance of an 8 conductor system

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 21:25:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12404qird4ts65f@corp.supernews.com>
Source record: 60827

Sriram wrote:
> Hi,
>
> Is there a derivation for calculating mutual capacitance and mutual
> inductance in an 8 conductor system? I did manage to find one for a 4
> conductor system but unable to extend that to 8 conductors. Any
> suggestions on books or papers for reference would be of great help.
> Thanks in advance.

Fundamentals of Coupled Lines and Multiwire Antennas by Hidenari Uchida, published by Sasaki Printing and Publishing Company, Ltd., 1967.

Roy Lewallen, W7EL

1036. Interesting antenna. Semi-fractal??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 22:12:55 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145052775.297265.98520@v46g2000cwv.googlegroups.com>
Source record: 60828

http://us.gizmodo.com/gadgets/gadgets/space-antenna-design-evolved-by-hive-of-borg-156502.php

1037. fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 22:25:46 UTC
From: Dave <noone@nowhere.com>
Message-ID: <fv6dnaSPKsnvvN3ZnZ2dnUVZ_tWdnZ2d@crocker.com>
Source record: 60829

How would you guys who are stuck in an endless thread of loading coils like to take on 'linear loading'?? are the currents the same at each end of the loading line?? do they cancel completely along the length of the loading line? does the loading line replace so many degrees of the length of the elements or cause some kind of delay???

the antenna i am working on is an m-squared 40m4lldd where, for example, the reflector is 50' tip to tip, about 10' out from the boom there is an insulator, a rod about 9' long connects with a metal bracket on each side of the insulator and folds back toward the boom where they are connected with an aluminum shorting bar that then uses a piece of phillystrand that goes to an element truss support bracket. then of course beyond the insulator is another 15' or so of element, the tips are adjusted to tune the elements.

1038. Re: Interesting antenna. Semi-fractal??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 22:36:16 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <a4WdnXSa8vb6v93ZRVn-iw@adelphia.com>
Source record: 60830

K7ITM wrote:
> http://us.gizmodo.com/gadgets/gadgets/space-antenna-design-evolved-by-hive-of-borg-156502.php

Do you have any idea what the performance specs are for this antenna?

1039. Re: Interesting antenna. Semi-fractal??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-14 23:23:55 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145057035.515651.107190@j33g2000cwa.googlegroups.com>
Source record: 60831

John Popelish wrote:
> K7ITM wrote:
> > http://us.gizmodo.com/gadgets/gadgets/space-antenna-design-evolved-by-hive-of-borg-156502.php
>
> Do you have any idea what the performance specs are for this antenna?

No idea at all. A friend knows I'm interested in antennas, and sent me the link simply as something interesting. Since things are WAY too quiet here today, I thought I'd post it. ;-)

Were you around this group during the Great Fractal Antenna Debates a couple years ago, John? You've undoubtedly noted references to them in some of the postings in the recent interminable threads.

Cheers,
Tom

1040. Re: Interesting antenna. Semi-fractal??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 01:02:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nsg04252bea2hlg8i9ghgl6ma5o17oeg03@4ax.com>
Source record: 60832

On 14 Apr 2006 16:23:55 -0700, "K7ITM" <k7itm@msn.com> wrote:

>
>John Popelish wrote:
>> K7ITM wrote:
>> > http://us.gizmodo.com/gadgets/gadgets/space-antenna-design-evolved-by-hive-of-borg-156502.php
>>
>> Do you have any idea what the performance specs are for this antenna?
>
>No idea at all. A friend knows I'm interested in antennas, and sent me
>the link simply as something interesting. Since things are WAY too
>quiet here today, I thought I'd post it. ;-)

Hi Tom, John,

The form shown is a variation of what I called the triangle sweep some
8 years ago. I fed it dipole style, they do similar sections in
parallel against a ground plane.
http://www.qsl.net/kb7qhc/antenna/fractal/Triangle%20Sweep%20Dissection/3dtri-42.htm
The following page shows one construction out 5 iterations in a
planar, not 3 space form:
http://www.qsl.net/kb7qhc/antenna/fractal/Triangle%20Sweep/index.htm
There are as many variations as could be expected, but calling them
"fractal" strains the definition - especially when the debate got down
to claims that every good conventional antenna design was an hidden
example of fractal principles.

If you drill down through the links, they are challenging Walt's
Quadrafilar design of some 35 years ago. Curiously, one frequency
sweep of the "better" of two models had pretty crummy SWR. I couldn't
find the design goal.

73's
Richard Clark, KB7QHC

1041. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 01:54:52 UTC
From: David Shrader <Deacon_Dave@comcast.net>
Message-ID: <RuydnXOnNJH3z93Z4p2dnA@comcast.com>
Source record: 60833

Richard Clark wrote:
> On Thu, 13 Apr 2006 09:42:35 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>
>>Happy Easter to everyone, even unbelievers!
>
>
> Hi Yuri,
>
> I was at Seder last night. Are you calling me an unbeliever?
>
> 73's
> Richard Clark, KB7QHC

I would hope not!!

Here in NH the Jewish community invites the Christian, including Catholic, Community to share the SEDER with them. The SEDER is served in the meeting room at the local synagogue. About 200 non Jewish people, meaning Christian, from the City of Manchester attend. It is an annual event.

The Jewish Community is REFORMED. I do not imagine such an invitation would occur from an Orthodox or Conservative Community. I respect their practice.

In the recent past I have been invited to pray in the congregation with a Conservative Community in Massachusetts. I am humbled. The Rabbi is a holy man.

/S/ W1MCE, AKA Deacon Dave [Reverend Mr.]

1042. Re: Interesting antenna. Semi-fractal??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 02:02:10 UTC
From: jpopelish@rica.net
Message-ID: <1145066530.661169.259390@v46g2000cwv.googlegroups.com>
Source record: 60834

K7ITM wrote:
> John Popelish wrote:
> > K7ITM wrote:
> > > http://us.gizmodo.com/gadgets/gadgets/space-antenna-design-evolved-by-hive-of-borg-156502.php
> >
> > Do you have any idea what the performance specs are for this antenna?
>
> No idea at all. A friend knows I'm interested in antennas, and sent me
> the link simply as something interesting. Since things are WAY too
> quiet here today, I thought I'd post it. ;-)

I searched Google for [borg antenna design nasa] and found lots of
other pictures, including one that has 4 uneven Y elements arranged in
a rotationally symmetrical pattern. It appears to be a monopole
equivalnet (perhaps with circular polarization endward).
http://www.nasa.gov/centers/ames/news/releases/2004/antenna/computer.html
http://www.nasa.gov/centers/ames/news/releases/2004/antenna/video.html

> Were you around this group during the Great Fractal Antenna Debates a
> couple years ago, John? You've undoubtedly noted references to them in
> some of the postings in the recent interminable threads.

Sorry to say, I missed that.

1043. Re: A warning!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 02:12:12 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4440567C.20907@fuse.net>
Source record: 60835

Steve Nosko wrote:
> Doesn't matter. Site unacceptable anyway. While there may be many on this
> group who understand the situation we are in with Georgie Porgie, this isn't
> the place to post nor give those doing so any reason to continue... Steve N.
>
> "John - KD5YI" <groups5munge@verizon.net> wrote in message
> news:35Q%f.38$yQ.26@trnddc07...
>
>>Wilder Scott wrote:
>>
>>>I think Bush and his administration probably
>>>had better turn their attention to the U.S. and
>>>forget about Iraq & Iran, or we're DONE FOR! Check this out! Pat
>>>
>>>http://halturnershow.com/aztlan.caps.wmv
>>>
>>>
>>>
>>
>>
>>Not Found
>>The requested document was not found on this server.
>>
>>Web Server at halturnershow.com
>
>
>
I agree this is not the place...but please don't count ME in with
Cheney's lap dog.

john

1044. Re: Interesting antenna. Semi-fractal??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 02:19:43 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <1240m2apghs3bec@corp.supernews.com>
Source record: 60836

Richard Clark wrote:
> On 14 Apr 2006 16:23:55 -0700, "K7ITM" <k7itm@msn.com> wrote:
>
>
>>John Popelish wrote:
>>
>>>K7ITM wrote:
>>>
>>>>http://us.gizmodo.com/gadgets/gadgets/space-antenna-design-evolved-by-hive-of-borg-156
502.php
>>>
>>>Do you have any idea what the performance specs are for this antenna?
>>
>>No idea at all. A friend knows I'm interested in antennas, and sent me
>>the link simply as something interesting. Since things are WAY too
>>quiet here today, I thought I'd post it. ;-)
>
>
> Hi Tom, John,
>
> The form shown is a variation of what I called the triangle sweep some
> 8 years ago. I fed it dipole style, they do similar sections in
> parallel against a ground plane.
> http://www.qsl.net/kb7qhc/antenna/fractal/Triangle%20Sweep%20Dissection/3dtri-42.htm
> The following page shows one construction out 5 iterations in a
> planar, not 3 space form:
> http://www.qsl.net/kb7qhc/antenna/fractal/Triangle%20Sweep/index.htm
> There are as many variations as could be expected, but calling them
> "fractal" strains the definition - especially when the debate got down
> to claims that every good conventional antenna design was an hidden
> example of fractal principles.
>
> If you drill down through the links, they are challenging Walt's
> Quadrafilar design of some 35 years ago. Curiously, one frequency
> sweep of the "better" of two models had pretty crummy SWR. I couldn't
> find the design goal.
>
> 73's
> Richard Clark, KB7QHC

Ut Oh! Your in trouble now.... :)...

1045. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 03:39:46 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <6WZ%f.557$QP4.244@fed1read12>
Source record: 60837

"jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net> wrote in message
news:uNR%f.786$MM6.80@bignews3.bellsouth.net...
>
> "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
> news:PYs%f.12664$bm6.7806@fed1read04...
> > Since aluminum is non magnetic, I would assume a mag-mount vertical
would
> > not couple properly to a aluminum ground plane.
> >
> > Thoughts ?
> > --
> > CL -- I doubt, therefore I might be !
>
> I tried this on a 2M antenna and it didnt work so well. My theory was that
> since the antenna was not firmly attached to the Al then the capacitve
> coupling between the base of the antenna and the Al groundplane was off.
> Fixed the problem by soldering radials to a coffee can lid and placing the
> antenna on this.
>
>

I was able to make a magmount work OK with only a steel TV tray.

I decided I wanted an emergency 2M antenna, so I got a ladder and attached the antenna whip from the high point inside my garage roof. The VSWR was awful until I took an old TV tray up and -- *bonk* -- stuck it to the dangling magmount base. Voila! Good VSWR. So, it doesn't take much. If the coffee can lid is what works, then that's what you do!!

1046. Re: A warning!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 03:51:56 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <w5_%f.558$QP4.12@fed1read12>
Source record: 60838

"John - KD5YI" <groups5munge@verizon.net> wrote in message
news:35Q%f.38$yQ.26@trnddc07...
> Wilder Scott wrote:
> > I think Bush and his administration probably
> > had better turn their attention to the U.S. and
> > forget about Iraq & Iran, or we're DONE FOR! Check this out! Pat
> >
> > http://halturnershow.com/aztlan.caps.wmv
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>
> Web Server at halturnershow.com

FYI: It came up for me. It's clips of public speeches by people
who oppose border controls. I think there was one guy with an
HT on his belt, so the OP can claim it was ham radio-related, hi hi.

1047. nag mount

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 05:01:49 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <1240vi1hapapg07@corp.supernews.com>
Source record: 60839

Mag mt. will wurk just fine if you use sufficient grey tape. The magic is that aluminum sticks really good to gray tape, but is a lousy sticker to mag mts. Magnetic antennas won't even stick, I tried.

Butch

1048. Re: HF discone ?????????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 07:59:04 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <TF10g.991$MM6.657@bignews3.bellsouth.net>
Source record: 60840

"Spock" <starbase01@optusnet.com.au> wrote in message
news:443c671f$0$10677$afc38c87@news.optusnet.com.au...
> Hello Everyone
> I saw somewhere that the us navy used on some of it's ships hf discone
> antennas. Were they any good? are they practical? what are the pros and
> cons? are they used commercially?
>
> Than you.
>
>
>
> ---
> avast! Antivirus: Outbound message clean.
> Virus Database (VPS): 0615-1, 11/04/2006
> Tested on: 12/04/2006 12:04:06 PM
> avast! - copyright (c) 1988-2005 ALWIL Software.
> http://www.avast.com
>
>
>

Remember seeing one down in South Florida back in the early 80s. Part of
quite an extensive antenna farm. Looked govt.

1049. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 14:55:22 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <uP70g.270$_s5.47@trnddc04>
Source record: 60841

Dave wrote:
> How would you guys who are stuck in an endless thread of loading coils like
> to take on 'linear loading'?? are the currents the same at each end of the
> loading line?? do they cancel completely along the length of the loading
> line? does the loading line replace so many degrees of the length of the
> elements or cause some kind of delay???
>
> the antenna i am working on is an m-squared 40m4lldd where, for example, the
> reflector is 50' tip to tip, about 10' out from the boom there is an
> insulator, a rod about 9' long connects with a metal bracket on each side of
> the insulator and folds back toward the boom where they are connected with
> an aluminum shorting bar that then uses a piece of phillystrand that goes to
> an element truss support bracket. then of course beyond the insulator is
> another 15' or so of element, the tips are adjusted to tune the elements.
>

What's "linear loading"? What's a "loading line"?

1050. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 15:01:18 UTC
From: Dave <noone@nowhere.com>
Message-ID: <lq-dnTNXcoNal9zZRVn-rA@crocker.com>
Source record: 60842

"John - KD5YI" <groups5munge@verizon.net> wrote in message
news:uP70g.270$_s5.47@trnddc04...
> Dave wrote:
>> How would you guys who are stuck in an endless thread of loading coils
>> like to take on 'linear loading'?? are the currents the same at each end
>> of the loading line?? do they cancel completely along the length of the
>> loading line? does the loading line replace so many degrees of the
>> length of the elements or cause some kind of delay???
>>
>> the antenna i am working on is an m-squared 40m4lldd where, for example,
>> the reflector is 50' tip to tip, about 10' out from the boom there is an
>> insulator, a rod about 9' long connects with a metal bracket on each side
>> of the insulator and folds back toward the boom where they are connected
>> with an aluminum shorting bar that then uses a piece of phillystrand that
>> goes to an element truss support bracket. then of course beyond the
>> insulator is another 15' or so of element, the tips are adjusted to tune
>> the elements.
>>
>
>
> What's "linear loading"? What's a "loading line"?

i probably didn't do a very good job of describing it, but basically you
take a shorter than 1/4 wave element and cut it in the middle somewhere and
put in an insulator. instead of putting in a loading coil as you would
normally expect you use a shorted piece of parallel wire line to tune it.
in the case of the 40m4lldd the parallel wire line is made of aluminum rod
and is folded back to use it as a truss for the element.

1051. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 15:12:57 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145113977.582800.310460@i39g2000cwa.googlegroups.com>
Source record: 60843

Ah, so the line just reflects an inductive reactance to the center of the element. Is there any reason it shouldn't act just like you'd expect a transmission line to act? If it's symmetric in the antenna field, it shouldn't couple significantly to the antenna (other than through its direct electrical connection). Doesn't sound like it should generate _nearly_ the excitement that loading coils seem to.

Cheers,
Tom

1052. 50 years ago - Not antenna related, but probably interesting to many

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 15:51:36 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44411688$0$1015$39cecf19@news.twtelecom.net>
Source record: 60844

I'm sure there are some here who will have memories stirred by this article.

http://tvtechnology.com/features/news/2006.04.12-n_the_video_tape_02.shtml

Tom
K0TAR

1053. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 16:06:45 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <KS80g.80$xX.5@fe11.lga>
Source record: 60845

"Dave" <noone@nowhere.com> wrote in message
news:lq-dnTNXcoNal9zZRVn-rA@crocker.com...
>
> "John - KD5YI" <groups5munge@verizon.net> wrote in message
> news:uP70g.270$_s5.47@trnddc04...
>> Dave wrote:
>>> How would you guys who are stuck in an endless thread of loading coils
>>> like to take on 'linear loading'?? are the currents the same at each
>>> end of the loading line?? do they cancel completely along the length of
>>> the loading line? does the loading line replace so many degrees of the
>>> length of the elements or cause some kind of delay???
>>>
As far as acting as loading element, it is another form of (real life)
loading inductance, so it is similar to loading coil, but worse performer in
the loaded Yagi situation. Have look at the end of my article
http://www.k3bu.us/loadingcoils.htm
where EZNEC plot shows current distribution along the loaded Yagi element,
using loading stubs.

>>> the antenna i am working on is an m-squared 40m4lldd where, for example,
>>> the reflector is 50' tip to tip, about 10' out from the boom there is an
>>> insulator, a rod about 9' long connects with a metal bracket on each
>>> side of the insulator and folds back toward the boom where they are
>>> connected with an aluminum shorting bar that then uses a piece of
>>> phillystrand that goes to an element truss support bracket. then of
>>> course beyond the insulator is another 15' or so of element, the tips
>>> are adjusted to tune the elements.
>>>
>>
>>
>> What's "linear loading"? What's a "loading line"?
>
> i probably didn't do a very good job of describing it, but basically you
> take a shorter than 1/4 wave element and cut it in the middle somewhere
> and put in an insulator. instead of putting in a loading coil as you
> would normally expect you use a shorted piece of parallel wire line to
> tune it. in the case of the 40m4lldd the parallel wire line is made of
> aluminum rod and is folded back to use it as a truss for the element.
>
>
It has been found and published in articles in CQ magazine, where loading
stubs were replaced by the loading coils and the performance of the antenna
like KLM 80m 3 el. loaded Yagi was improved significantly. Better gain and
better and cleaner F/B and pattern. Real modeling and measurements confirmed

that, regardless what the "flat earth - same current" believers claim and try to "prove".
Folding the loading stubs along the elements seems to distort the current distribution along the element and deteriorate its' performance. So you are better off replacing loading stubs with loading coils, and that's what the whole debate about the current distribution, reality and understanding it is about.

73 and GL Yuri, K3BU.us

1054. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 18:40:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4ie242db8e606932th5cq8pbn2prfvks16@4ax.com>
Source record: 60846

On Sat, 15 Apr 2006 12:06:45 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>it is similar to loading coil, but worse performer in
>the loaded Yagi situation. Have look at the end of my article
>http://www.k3bu.us/loadingcoils.htm

Hi Yuri,

As usual, your statement has nothing to do with your link. What is
worse, this EZNEC model is from a third party who is not available to
comment as to the accuracy of your statements about performance.

Even more is the compounding of error at the link:
"G5RV antenna using inductors in the form of loading stubs"
Clearly, then, it is NOT a G5RV.

When we continue with the commentary we find:
"When simple inductance in Eznec is inserted in place of the
stubs, the current erroneously is shown as the same at the both
ends of the inductor."
Clearly, then, the model designer who expected something other does
not know how to design the model. It would seem after several years
of corrections to this error you continue to publish, that you would
have updated your page by now.

It is easy to offer broken solutions. This group sees many of them
that are then used to discredit either the tool or the theory. What
these broken models reveals are the bankrupt designer.

Perhaps you should vet the material from your contributors more
closely.

73's
Richard Clark, KB7QHC

1055. Re: Thomas & Betts UV Resistant Tie Wraps: Any Experiences With For Out Of Door Usage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 21:33:28 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <PBd0g.2468$iB2.1905@bignews4.bellsouth.net>
Source record: 60847

"Robert11" <rgsros@notme.com> wrote in message
news:BPednWi15vkNzaPZRVn-pg@comcast.com...
> Hi,
>
> Was wondering if anyone has any experience using the "Premium" Thomas &
> Betts, Black, "UV-Resistant"
> nylon tie wraps out of doors ?
>
> e.g., do they become brittle after a fer years due to very cold temps, or
UV
> ?
>
> Or, do they really hold up well, etc. ?
>
> Thanks,
> Bob

I worked at an electrical supply for several years, and When Georgia Power was building Plant Vogtle nuclear plant, they must have purchased a truckload or more TY-525-MX (black WP tie-raps). Paperwork had to be traceable back to the factory. We also sold a lot of of Panduit brand tie-raps. I think they are of equal quality.
The black ones have carbon in the mix to retard UV damage. If you take one more step (like put a wrap of tape (3M#88) over the tie-rap) or even paint it - it should give more years of life.
--but like one post mentioned - Panduit -and T&B if I recall both have stainless steel versions.

1056. Re: 50 years ago - Not antenna related, but probably interesting to many

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-15 22:31:28 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <4ve0g.589$QP4.532@fed1read12>
Source record: 60848

"Tom Ring" <news0002@taring.org> wrote in message
news:44411688$0$1015$39cecf19@news.twtelecom.net...
> I'm sure there are some here who will have memories stirred by this
article.
>
> http://tvtechnology.com/features/news/2006.04.12-n_the_video_tape_02.shtml
>
> Tom
> K0TAR

"It made such an impression on me that I get tears in my eyes telling the
story."

I'm there now. Thanks so much.

1057. A little more 'About' the Flexo SWL Aerial -wrt- Flexo SWL Antenna Questions ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-16 01:40:53 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1145151653.086612.174270@i40g2000cwc.googlegroups.com>
Source record: 60849
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

For One and All,

A little more 'About' the Flexo SWL Aerial
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/9051

Flexo SWL Aerial. {Flexo Shortwave Listener Antenna}
An Antenna / Antenna-Switching System than improves Shortwave
Reception by adding Flexibility to a Single-Antenna System, making
it seem as if you have more than one Antenna. Gives you more choices
in Antenna length, angle-of-signal arrival, and propagation conditions.
- - - HANDS-ON ELECTRONICS May-Jun 1986 (v.3#3) pg. 65
http://www.nleindex.com/index.php?pID=HTDI&sID=BrowseIndex&tID=E/2823

iane ~ RHF
.
.
. .
- - - In Shortwave-SWL-Antenna@yahoogroups.com,
- - - "jllamb62" <jllamb62@...> wrote:
- - - Subject : Flexo SWL Antenna Questions ?
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/9047

Back in the mid 80s there was an excellent electronics magazine
called Hands-On Electronics. In the May/June 1986 issue was an
Article by Ed Noll [W3FQJ] called "Flexo SWL Aerial".

I always wanted to try this Antenna, now I will have the time and
room to put it up.

There are two problems, I have the original Article but I don't have
the Correction for the Control Box that appeared in the next issue.

The second problem is I have looked all over the internet for
Ed Noll -or- W3FQJ. All I get are sites selling his books,
no web or home address.

So, I Need Help.

Does anyone remember the magazine and kept the article
and correction?

Anyone who belongs to other groups will see this post again
and again, etc.

Jim WA9038SWL
.
.
. .
.

1058. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-16 01:44:55 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <Okh0g.14754$g24.14319@fe12.lga>
Source record: 60850

Hi Richard,
I thank you for posting such revealing evaluation of my deficient, misleading knowledge.
Yes, my web site is full of old no good stuff. Even my C6AYB picture is too many pounds old.
Anyone with spec of antenna knowledge can see that "G5RV" is operated as dipole, judging by the standing wave current distribution, and it is not cardinal sin to call it G5RV dipole or vice versa.
If I can get away from deflecting mumbo-jumbo and over holidays, I will start working on the project. Looks like audience here is looking for sticking needles rather than providing answers and suggestions to questions.
The main thrust of question posted here was, should he stay with loading stubs or do something better. I described what was done, and stubs suck, coils are MUCH better and that current distribution is what it is and illustrated in that "butchered" drawing by W5DXP.
I humbly bow in view of your much better, educational posting. I am sure the questioner is fully satisfied with your answers and solutions.

Happy Easter from bankrupt designer

73 Yuri, K3BU

"Richard Clark" <kb7qhc@comcast.net> wrote in message news:4ie242db8e606932th5cq8pbn2prfvks16@4ax.com...
> On Sat, 15 Apr 2006 12:06:45 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>>it is similar to loading coil, but worse performer in
>>the loaded Yagi situation. Have look at the end of my article
>>http://www.k3bu.us/loadingcoils.htm
>
> Hi Yuri,
>
> As usual, your statement has nothing to do with your link. What is
> worse, this EZNEC model is from a third party who is not available to
> comment as to the accuracy of your statements about performance.
>
> Even more is the compounding of error at the link:
> "G5RV antenna using inductors in the form of loading stubs"
> Clearly, then, it is NOT a G5RV.
>
> When we continue with the commentary we find:
> "When simple inductance in Eznec is inserted in place of the
> stubs, the current erroneously is shown as the same at the both
> ends of the inductor."

> Clearly, then, the model designer who expected something other does
> not know how to design the model. It would seem after several years
> of corrections to this error you continue to publish, that you would
> have updated your page by now.
>
> It is easy to offer broken solutions. This group sees many of them
> that are then used to discredit either the tool or the theory. What
> these broken models reveals are the bankrupt designer.
>
> Perhaps you should vet the material from your contributors more
> closely.
>
> 73's
> Richard Clark, KB7QHC

1059. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-16 05:14:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tri34219gpivk10sjq5fn8ovr8cusq25dg@4ax.com>
Source record: 60851

On Sat, 15 Apr 2006 21:44:55 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>Hi Richard,
>I thank you for posting such revealing evaluation of my deficient,
>misleading knowledge.

Hi Yuri,

Your appreciation is well placed.

>Anyone with spec of antenna knowledge can see that "G5RV" is operated as
>dipole, judging by the standing wave current distribution, and it is not
>cardinal sin to call it G5RV dipole or vice versa.

Anyone? No, this is embracing a crowd to insulate you from
sloppiness. You rail about accuracy, bewail efficiency, demand
perfection, and this is your defense? It works better in a teenager's
diary - not here.

>If I can get away from deflecting mumbo-jumbo and over holidays, I will
>start working on the project. Looks like audience here is looking for
>sticking needles rather than providing answers and suggestions to questions.

More sobbing. Yuri, if "doing" this had anything to offer you, you
would have done it by now. Others, including myself, have already
posted results, answers and suggestions. We merely wait for you to
either catch up, or pass us.

In light of the many promises of more horsepower, faster acceleration,
and better gas mileage, that has been a long wait.

>The main thrust of question posted here was, should he stay with loading
>stubs or do something better. I described what was done, and stubs suck,

Suck goes right up there with BS that is sold for a dime a truck full.
>coils are MUCH better

How much better? This sounds like a fractal sales pitch.

>and that current distribution is what it is

Zen and BS depress the price to a nickel a truck load.

>and illustrated in that "butchered" drawing by W5DXP.

This confirms my comment that you should vet your references closer.

>I humbly bow in view of your much better, educational posting. I am sure the
>questioner is fully satisfied with your answers and solutions.

Not something I would take for granted. You have to careful about
being humble, I whip peasants for fun too.

73's
Richard Clark, KB7QHC
protecting the world against fractal salesmen for 10 years.

1060. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-16 05:33:10 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <NGk0g.2689$ER1.2118@fe08.lga>
Source record: 60852

"Richard Clark" <kb7qhc@comcast.net> wrote
>
> How much better? This sounds like a fractal sales pitch.
>

Your HOW MUCH is getting a bit TOO MUCH!
Comparing this to fractal sales pitch??? That is TOO MUCH!
Go read the article in CQ magazine if you like to find out details. Geeez!
Guy asked question, I gave some answer, better than nothing that you gave or
anyone else. If you expect me to write a book, than wait!
Looks like you got TOO MUCH time and enjoy sticking needles.
Sorry I don't write exactly as you would wish.
Get a life!

73 Yuri

1061. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-16 06:18:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7om342lvpt6rsu2ekmvei9oatjc9349g2q@4ax.com>
Source record: 60853

On Sun, 16 Apr 2006 01:33:10 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:
>> How much better? This sounds like a fractal sales pitch.
>>
>Your HOW MUCH is getting a bit TOO MUCH!
>Comparing this to fractal sales pitch??? That is TOO MUCH!

Would it touch a raw nerve to ask how much too much is?

>Go read the article in CQ magazine if you like to find out details. Geeez!

Hi Yuri,

A vanity rag? When you can't remember what you read, that has to be
the hallmark of a grand article. I bet GQ will give me better
details, I would learn to dress better too - if that mattered.

>Get a life!

OK, so this is about the style of men's fashions. Do the lash marks
show through your hair shirt?

73's
Richard Clark, KB7QHC

1062. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-16 07:13:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mkq342pdgumknhuh368nkupcseahm5etd5@4ax.com>
Source record: 60854

On Sat, 15 Apr 2006 12:06:45 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>As far as acting as loading element, it is another form of (real life)
>loading inductance, so it is similar to loading coil, but worse performer in
>the loaded Yagi situation. Have look at the end of my article
>http://www.k3bu.us/loadingcoils.htm

Hi Yuri,

Now, when we actually "look" at the design at your link, we find we
don't know much about:
1. How tall the antenna is (never said);
2. How long the radials are (never said);
3. How many turns in the coil (have to squint and count and hope);
4. How long the coil is (you gotta guess);
5. What frequency this resonates at (well, actually it doesn't say it
resonates anywhere);
6. What the drive point Z is (as if that mattered)

But we do know that some one can find
7. The current into the coil and;
8. The current out of the coil;
9. which according to breathless reports makes all the difference in
the world,

until
10. I threw away that trash coil, replaced it with a distributed load
(aka shorted transmission line) and boosted the performance.

73's
Richard Clark, KB7QHC

1063. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-16 09:37:23 UTC
From: w8ji@akorn.net
Message-ID: <1145180243.458726.20590@i39g2000cwa.googlegroups.com>
Source record: 60855

Dave wrote:
> How would you guys who are stuck in an endless thread of loading coils like
> to take on 'linear loading'?? are the currents the same at each end of the
> loading line?? do they cancel completely along the length of the loading
> line? does the loading line replace so many degrees of the length of the
> elements or cause some kind of delay???

All of the petty arguing and self-promotion aside, linear loading is just a very poor form of a loading coil. Like any poorly designed system, the ill effects of design shortfalls can range from very small to very large.

As a general rule, linear loading reduces efficiency over a lumped coil of good design. Again the exact amount and the overall effect varies with where the loading is placed in the antenna, how it is constructed, and where and how the loading coil compared to it is constructed and placed.

A transmission line, even a very good one, generally has a Q of someplace around 20-75. The definition of Q I am using is reactance over ESR. Say you need a reactance of 400 ohms to resonate an antenna. Linear or stub loading would add a series resistance of 5 to 20 ohms as loss resistance at that point in the system.

It would take a very poor coil to have that Q, but it can be done.

Depending on where in the antenna you insert that loss resistance, the effects can be large or small. Myself, I avoid linear loading. I'm not a person who likes to gamble.

We have now all seen first hand how a fascination with destroying others really just destroys the ability to learn anything ourselves and to help others learn. This loading coil thing has become a mental illness, like uncontrolled shoplifting. One fellow wrote a nice book on transmission lines and a long argument about amplifiers and a long argument about reflected waves on amplifiers did the same thing.

This stuff is more a demonstration of emotional problems or mental illness than science and education. It's one step below someone going postal and just shooting everyone else in the world who is responsible for his failures and unpopularity!

I hope this post gives insight into how arguing or fixations ruin the educational process, and also sheds light on linear loading. Something for everyone.

73 Tom

1064. fm receiver design @ 2.4GHz

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-16 14:31:35 UTC
From: mazerom <electromagnetic377@yahoo.com>
Message-ID: <1145197895.457154.40870@i39g2000cwa.googlegroups.com>
Source record: 60856

any reference design?

thanks

1065. Wi-Spy useful for antenna study

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-16 16:44:31 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <d9udnePdUf0A6d_ZnZ2dnUVZ_tednZ2d@comcast.com>
Source record: 60857

Termed by some as the most inexpensive 2.4GHz spectrum analyzer you can buy, the Metageek Wi-Spy USB dongle http://www.metageek.net/index.php has a lot going for it. I recently attempted to use it to judge the performance of various Wi-Fi antennas, with the intent to improve the connection to my local community wireless network access points.

For a source, I used an old D-Link 802.11b Router that I found at a flea market, set to beacon at 3 millisecond intervals with an identification string and a long error correction preamble to provide strong spectrum peaks. At first I located the test antenna and an in-line variable attenuator at the Router output, but leakage through its diversity switch and incidental radiation from its unshielded circuitry took a short cut around the attenuator and produced misleading results.

I then decided a better way to do this testing was to shield the Wi-Spy device in a small box and couple the test antenna to it through my in-line attenuator. I filtered the USB leads with feed-thru capacitors, using 100pf for the +D and -D and 3000pf for the Vbus lines, fastened a dipole antenna to the Wi-Spy case and connected it by a short coax lead to a Type N connector at the other end of the box. I feel the quality of the shielding is related to the quality of the box, and I found a very nice one from Context Engineering Inc. http://www.consite.com/context/cont_circuit.htm It's the 2506 size split body type with extrusions 4.3" long, plain end caps (middle type in the exploded depiction), and is available at Fry's, in the S. F. Bay Area for $10.99 + tax.

Comparing shielded Wi-Spy display levels with a 1/4-wave whip against the USB device directly receiving the test signal showed about an 8 dB coupling loss on the display. But most important is the effectiveness of the shield so that without an antenna, the response in the presence of this normally saturating signal is now indistinguishable from the noise level. The Wi-Spy manufacturer promises to have an improved model with an external antenna connector available this summer, and that will eliminate the coupling loss, but for now, the ability to employ the Wi-Spy either open or shielded answers a variety of needs.

Chuck, W6PKP

1066. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-16 22:44:06 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145227446.811948.31350@g10g2000cwb.googlegroups.com>
Source record: 60858

OK, I gotta take issue with the part that says,

"> A transmission line, even a very good one, generally has a Q of
> someplace around 20-75. The definition of Q I am using is reactance
> over ESR. Say you need a reactance of 400 ohms to resonate an antenna.
> Linear or stub loading would add a series resistance of 5 to 20 ohms as
> loss resistance at that point in the system.
"

I know that transmission line Q varies all over the place: it's much more reasonable to use it in a resonator at high frequencies than low, and line construction makes a big difference too. To back this up with numbers, I just ran some calcs (actually put together a little Scilab program to run them for me) on four different lines: (a) is RG-8/RG-213 type line with solid poly dielectric, (b) is 75 ohm air insulated coax in an 0.5" ID copper tube, (c) is balanced two-wire line made with 12AWG (~2mm) wire spaced 2" (~5cm) on centers), and (d) is two 0.625" OD copper tubes spaced 3" on center.

For a 1/8 wave section of line shorted at the far end, the calculated impedances and Qs are:

line a, 10MHz: 0.622+j50, Q=80
line a, 100MHz: 0.197+j50, Q=254
line a, 1000MHz: 0.0622+j50, Q=800

line b, 10MHz: 0.35+j75, Q=215
100MHz: 0.110+j75, Q=679
1GHz: 0.035+j75, Q=2147

line c, 10MHz: 0.972+j469, Q=482
100MHz: 0.307+j469, Q=1526
1GHz * : 0.097+j469, Q=4826

line d, 10MHz: 0.124+j270, Q=2170
100MHz: 0.039+j270, Q=6864
1GHz * : 0.012+j270, Q=21.7k

* -- the open wire lines will likely not work in practice quite this well at UHF...

With luck, I got all the calcs right; but in any event, I do expect the Q to go up for a given stub as the sqrt(f), and the Q of open-wire lines to be considerably higher than that of coax with similar conductor diameter, just because the impedance is higher.

The Q of an RG-8-type stub at 10MHz isn't wonderful, but at higher frequencies and with different construction, stubs can work better than coils. There is a range of frequencies where it can be a matter of construction preference: the stub may be easier to integrate into a design, or the coil may be, depending. At high enough frequencies, the stub often is easier.

Also, I want to point out that in a collinear -- a half-wave dipole, center fed, in the center, and an additional half-wave element on either end, coupled through a two-wire-line stub perpendicular to the antenna performs distinctly better than the same antenna in which the stubs are replaced by self-resonant coils, or by a coaxial stub which is made to be collinear with the antenna. That's because the perpendicular stub interacts with the antenna field to excite the right mode on the line to get substantial current in the outboard collinear half-waves. See King for further explanation.

Cheers,
Tom

w8ji@akorn.net wrote:
> Dave wrote:
> > How would you guys who are stuck in an endless thread of loading coils like
> > to take on 'linear loading'?? are the currents the same at each end of the
> > loading line?? do they cancel completely along the length of the loading
> > line? does the loading line replace so many degrees of the length of the
> > elements or cause some kind of delay???
>
>
> All of the petty arguing and self-promotion aside, linear loading is
> just a very poor form of a loading coil. Like any poorly designed
> system, the ill effects of design shortfalls can range from very small
> to very large.
>
> As a general rule, linear loading reduces efficiency over a lumped coil
> of good design. Again the exact amount and the overall effect varies
> with where the loading is placed in the antenna, how it is constructed,
> and where and how the loading coil compared to it is constructed and
> placed.
>
> A transmission line, even a very good one, generally has a Q of
> someplace around 20-75. The definition of Q I am using is reactance
> over ESR. Say you need a reactance of 400 ohms to resonate an antenna.
> Linear or stub loading would add a series resistance of 5 to 20 ohms as
> loss resistance at that point in the system.
>
> It would take a very poor coil to have that Q, but it can be done.
>
> Depending on where in the antenna you insert that loss resistance, the
> effects can be large or small. Myself, I avoid linear loading. I'm not
> a person who likes to gamble.
>

> We have now all seen first hand how a fascination with destroying
> others really just destroys the ability to learn anything ourselves
> and to help others learn. This loading coil thing has become a mental
> illness, like uncontrolled shoplifting. One fellow wrote a nice book on
> transmission lines and a long argument about amplifiers and a long
> argument about reflected waves on amplifiers did the same thing.
>
> This stuff is more a demonstration of emotional problems or mental
> illness than science and education. It's one step below someone going
> postal and just shooting everyone else in the world who is responsible
> for his failures and unpopularity!
>
> I hope this post gives insight into how arguing or fixations ruin the
> educational process, and also sheds light on linear loading. Something
> for everyone.
>
> 73 Tom

1067. Re: fm receiver design @ 2.4GHz

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-16 22:45:31 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145227531.812587.38670@g10g2000cwb.googlegroups.com>
Source record: 60859

Why are you posting this in an antennas group?? Don't you have access
to the homebrew group?

1068. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 00:58:06 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <yKB0g.10434$%Z4.2315@fe12.lga>
Source record: 60860

Chrystos Voskres! Christ has risen!

May he nelighten those confused and enlighten them!

Nice going Tom, W8JI!

73 Yuri, K3BU.us

1069. Re: paint antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 01:24:50 UTC
From: Buck <not@this.time>
Message-ID: <ffr542dd1blguohqnoih9fk26pi06oavl5@4ax.com>
Source record: 60861

On Wed, 05 Apr 2006 14:05:47 GMT, Silfax
<Silfax@localhost.localdomain> wrote:

>I would try putting up a vertical stripe on the building and then paint the
>radials on the sidewalk/street. This could be the ultimate in stealth. Make the
>radials look like a crosswalk or the center line down the street. You could
>even paint the curb, to make a no parking zone radial.
>
>

Why paint radials? Just paint the entire surface for 260 FEET in
diameter. Then you can use a vertical for any band from 160 up with
infinite radials in the circle.

--
73 for now
Buck
N4PGW

1070. Re: paint antenna? Aluminum paint?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 01:27:05 UTC
From: Buck <not@this.time>
Message-ID: <9lr542dqlira9c1qeq79mtrbprn1hi4djm@4ax.com>
Source record: 60862

I have seen my father use aluminum paint from way back in the 60's. I haven't seen it lately, not that I have looked, but I wonder how it would work.....

Buck
N4PGW

--
73 for now
Buck
N4PGW

1071. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 01:55:45 UTC
From: Buck <not@this.time>
Message-ID: <r9t542t29agkq1hkq9b5lgpd60hm66094a@4ax.com>
Source record: 60863

>In general there is a magnetic/electric field between the conductors in
>twinlead feed line.
>Dave WD9BDZ

Dave,

Just to clarify, is the 'magnetic/electric field' to which you refer
the same as saying 'electromagnetic field'? I am just trying to
clarify whether it is just how you expressed it or if you are making a
distinctive difference.

Thanks
Buck

--
73 for now
Buck
N4PGW

1072. Re: 50 years ago - Not antenna related, but probably interesting to many

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 02:21:33 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <8uOdnQ2D7fg3Zt_ZnZ2dnUVZ_v2dnZ2d@adelphia.com>
Source record: 60864

Tom Ring wrote:
> I'm sure there are some here who will have memories stirred by this
> article.
>
> http://tvtechnology.com/features/news/2006.04.12-n_the_video_tape_02.shtml
>

Great article, Tom. I'm a little surprised they didn't go into how the
stuff was edited.

- 73 de Mike KB3EIA -

1073. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 02:25:31 UTC
From: Buck <not@this.time>
Message-ID: <k0v542drr4edt53l45d8uvkcogg978033c@4ax.com>
Source record: 60865

On Thu, 13 Apr 2006 07:09:53 -0700, "Caveat Lector"
<UALLBeware@9984reader.com> wrote:

>Since aluminum is non magnetic, I would assume a mag-mount vertical would
>not couple properly to a aluminum ground plane.
>
>Thoughts ?

Put a steel plate below the aluminum so the magnet won't fall over.
Electrically, it should work on aluminum as the ground will still
conduct when the magnet touches the aluminum. If nothing else, the
capacitive connection through the base of the antenna should be about
the same as it is on the steel.

my thoughts
N4PGW
buck

--
73 for now
Buck
N4PGW

1074. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 02:27:36 UTC
From: Buck <not@this.time>
Message-ID: <c8v542lg9n1alb2sf876f8oba2vb50tk7n@4ax.com>
Source record: 60866

On Fri, 14 Apr 2006 20:39:46 -0700, "Sal M. Onella"
<salmonella@food.poisoning.org> wrote:

>
>"jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net> wrote in message
>news:uNR%f.786$MM6.80@bignews3.bellsouth.net...
>>
>> "Caveat Lector" <UALLBeware@9984reader.com> wrote in message
>> news:PYs%f.12664$bm6.7806@fed1read04...
>> > Since aluminum is non magnetic, I would assume a mag-mount vertical
>would
>> > not couple properly to a aluminum ground plane.
>> >
>> > Thoughts ?
>> > --
>> > CL -- I doubt, therefore I might be !
>>
>> I tried this on a 2M antenna and it didnt work so well. My theory was that
>> since the antenna was not firmly attached to the Al then the capacitve
>> coupling between the base of the antenna and the Al groundplane was off.
>> Fixed the problem by soldering radials to a coffee can lid and placing the
>> antenna on this.
>>
>>
>
>I was able to make a magmount work OK with only a steel TV tray.
>
>I decided I wanted an emergency 2M antenna, so I got a ladder and attached
>the antenna whip from the high point inside my garage roof. The VSWR was
>awful until I took an old TV tray up and -- *bonk* -- stuck it to the
>dangling magmount base. Voila! Good VSWR. So, it doesn't take much. If
>the coffee can lid is what works, then that's what you do!!
>

Try a pizza pan

--
73 for now
Buck
N4PGW

1075. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 02:38:18 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <1245vtaahrsbh31@corp.supernews.com>
Source record: 60867

Buck wrote:
>>In general there is a magnetic/electric field between the conductors in
>>twinlead feed line.
>>Dave WD9BDZ
>
>
> Dave,
>
> Just to clarify, is the 'magnetic/electric field' to which you refer
> the same as saying 'electromagnetic field'? I am just trying to
> clarify whether it is just how you expressed it or if you are making a
> distinctive difference.
>
> Thanks
> Buck
>
Buck

You are correct in your interpretation of my stumbling words.
The main thing is close proximity to another conductive material will
affect the transmission of energy on twin lead.
I hope that I have helped you. Amateur radio is a fascinating field of
endeavor. Your education does not ever stop.

Dave

1076. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 02:42:09 UTC
From: Buck <not@this.time>
Message-ID: <s20642pjdi6mqjhm58ieeuk6sv25p7b4sq@4ax.com>
Source record: 60868

On Sun, 16 Apr 2006 21:38:18 -0500, "David G. Nagel" <nagel@core.com>
wrote:

>Buck wrote:
>>>In general there is a magnetic/electric field between the conductors in
>>>twinlead feed line.
>>>Dave WD9BDZ
>>
>>
>> Dave,
>>
>> Just to clarify, is the 'magnetic/electric field' to which you refer
>> the same as saying 'electromagnetic field'? I am just trying to
>> clarify whether it is just how you expressed it or if you are making a
>> distinctive difference.
>>
>> Thanks
>> Buck
>>
>Buck
>
>You are correct in your interpretation of my stumbling words.
>The main thing is close proximity to another conductive material will
>affect the transmission of energy on twin lead.
>I hope that I have helped you. Amateur radio is a fascinating field of
>endeavor. Your education does not ever stop.
>
>Dave

Thanks, and yes, the education continues.

--
73 for now
Buck
N4PGW

1077. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 03:04:46 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <bbWdnaZcAdNWmN7ZnZ2dnUVZ_sednZ2d@adelphia.com>
Source record: 60869

w8ji@akorn.net wrote:
>
>
> Roy Lewallen wrote:
>
>>>That this concept
>>>is wrong can and has been shown by theory, modeling, and measurement. I
>>>made and posted measurements on this newsgroup in November 2003 which
>>>demonstrated clearly that the presumption is false.
>
>
> Mike Coslo wrote:
>
>> Okay. It looks like we have at least some measurements that differ. Any
>>idea why that would be?
>
>
> Yes, because the physical construction of the coil and the antenna
> changes the capacitance from the inductor to the outside world and the
> impedance loading the coil. It is the ratio of capaciatnce of the coil
> to the outside world to the load impedance presented by the whip above
> the coil that causes or allows any phase difference in current or
> current level at each end of the coil.
>
> It isn't standing waves, it is missing electrical degrees.
>
> I can take a resonant mobile antenna of basically the same height and
> construction, change only the coil while maintaining resonance, and
> have difference of current and phase of current change all over the
> place.
>
> Try reading:
>
> http://www.w8ji.com/mobile_and_loaded_antenna.htm
>
> there is a link to actual measurements in that text.
>
>
>
>>>The loading coil isn't making the antenna act like a physically longer
>>>antenna. In the extreme case of a physically short inductor at the
>>>feedpoint, it's simply modifying the feedpoint impedance and has no
>>>effect whatever on the antenna's radiation.
>>

>> Would the inductor then be best right past the feedpoint? Certainly
>>having the inductor at the far end, or in the middle seems like a bad
>>place for it. (not talking about trap antennas)
>
>
> No. The current in the antenna below the loading coil (or a top hat of
> sufficent capacitance)is essentially uniform. This increases radiation
> resistance. Increased radiation resistance can increase efficiency.
>
> See:
>
> http://www.w8ji.com/radiation_resistance.htm

Wow, good pages, Tom.

Okay now. Your results are pretty compelling, and thanks for the understandable treatment too. I note differing measurements, and a reason for those measurements I'm still reading the pages, but wanted to respond before you thought I was ignoring you.

For the next question, which is directed toward Yuri and/or Cecil, is are your measurements at all related to what Tom reports? Do the numbers correlate?

- 73 de Mike KB3EIA -

1078. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 03:50:34 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <vt2642tji0a6u4dktf18sg645eqg0qvi08@4ax.com>
Source record: 60870

On 16 Apr 2006 15:44:06 -0700, "K7ITM" <k7itm@msn.com> wrote:

>OK, I gotta take issue with the part that says,
>
>"> A transmission line, even a very good one, generally has a Q of
>> someplace around 20-75. The definition of Q I am using is reactance
>> over ESR. Say you need a reactance of 400 ohms to resonate an antenna.
>> Linear or stub loading would add a series resistance of 5 to 20 ohms as
>> loss resistance at that point in the system.
>"
>
>I know that transmission line Q varies all over the place: it's much
>more reasonable to use it in a resonator at high frequencies than low,
>and line construction makes a big difference too. To back this up with
>numbers, I just ran some calcs (actually put together a little Scilab
>program to run them for me) on four different lines: (a) is RG-8/RG-213
>type line with solid poly dielectric, (b) is 75 ohm air insulated coax
>in an 0.5" ID copper tube, (c) is balanced two-wire line made with
>12AWG (~2mm) wire spaced 2" (~5cm) on centers), and (d) is two 0.625"
>OD copper tubes spaced 3" on center.
>
>For a 1/8 wave section of line shorted at the far end, the calculated
>impedances and Qs are:
>
>line a, 10MHz: 0.622+j50, Q=80
>line a, 100MHz: 0.197+j50, Q=254
>line a, 1000MHz: 0.0622+j50, Q=800

I tried these numbers in the line loss calculator at
http://www.vk1od.net/tl/tllce.php using Belden 8267 of 2.475m length
for 0.125 wavelengths and Zload=0.0000000001. The input Z I got was a
little higher at 0.88+j50 (probably slightly different approximation
of Zo used in the calcs), yeilding a Q of 57. The Q is quite dependent
on line length, decreasing as length increases towards a quarter wave.

I suspect this is not a good method of analysing behaviour when the
line elements are field coupled to other radiator elements, the
currents in each leg are not necessarily equal and opposite.

Owen
--

1079. Re: Thomas & Betts UV Resistant Tie Wraps: Any Experiences With For Out Of Door Usage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 03:57:27 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <HmE0g.3434$Fy2.1460@newsread3.news.pas.earthlink.net>
Source record: 60871

Hal Rosser wrote:

> I worked at an electrical supply for several years, and When Georgia Power
> was building Plant Vogtle nuclear plant, they must have purchased a
> truckload or more TY-525-MX (black WP tie-raps). Paperwork had to be
> traceable back to the factory. We also sold a lot of of Panduit brand
> tie-raps. I think they are of equal quality.

I used to sell the things in large quantities while working for a
Cincinnati electronics distributor. The T&B's are pricey, but for a
reason. They have a stainless steel barb to lock the ty-wrap (their
trademarked name for the devices). It is much stronger than most
competitors molded nylon barb. The black, uv treated ty-wraps work
very, very well. I'll admit that as a radio amateur, I use the generic
uv resistant ones and they also do the job. I generally tape over them.

Dave Heil K8MN

1080. Re: paint antenna? Aluminum paint?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 04:48:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12467gtb8mvjg38@corp.supernews.com>
Source record: 60872

Buck wrote:
> I have seen my father use aluminum paint from way back in the 60's. I
> haven't seen it lately, not that I have looked, but I wonder how it
> would work.....

As a guess, very badly. The aluminum in the paint is in the form of small particles, each probably covered with an oxide coating. So the conductivity would be very poor, even if the paint dried in such a way as to bring the individual particles into contact with each other (which it very well might not).

Roy Lewallen, W7EL

1081. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 06:08:33 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145254113.447279.155260@z34g2000cwc.googlegroups.com>
Source record: 60873

Yes, the Q as determined by simply taking X/R decreases as you approach 1/4 wavelength, but what you really need to do is resonate it with a capacitance and look at the Z as a function of frequency when you do that. I mean, it IS a resonator if it's 1/4 wave long: it would look like Q=0 there if you take X/R, but of course it's not. If you simply want _inductance_ (i.e. a loading coil), do NOT make the stub close to 1/4 wave long. It's just the same as trying to use a coil for inductance up near its self-resonance.

Also, a point that was in my mind when I originally posted, but failed to put well into writing then, is that as frequency increases, the Q of a solenoid coil will increase about as the square root of frequency...and the size stays the same. But the stub's Q also increases as the square root of frequency, while it's size (length) is directly proportional to 1/freq, and it's shrinking in size.

And thanks for the cross-check on my numbers, Owen. I hacked it pretty quickly, and may have missed a cog somewhere, though I think the numbers are reasonably close. I suppose one of Reg's programs will give you stub impedance, too. -- I think I see why my numbers may be a bit different than what you got; I'll check on it as I have time, though the difference isn't enough to worry me--the trends are still the same.

Cheers,
Tom

Owen Duffy wrote:
> On 16 Apr 2006 15:44:06 -0700, "K7ITM" <k7itm@msn.com> wrote:
>
> >OK, I gotta take issue with the part that says,
> >
> >"> A transmission line, even a very good one, generally has a Q of
> >> someplace around 20-75. The definition of Q I am using is reactance
> >> over ESR. Say you need a reactance of 400 ohms to resonate an antenna.
> >> Linear or stub loading would add a series resistance of 5 to 20 ohms as
> >> loss resistance at that point in the system.
> >"
> >
> >I know that transmission line Q varies all over the place: it's much
> >more reasonable to use it in a resonator at high frequencies than low,
> >and line construction makes a big difference too. To back this up with
> >numbers, I just ran some calcs (actually put together a little Scilab
> >program to run them for me) on four different lines: (a) is RG-8/RG-213
> >type line with solid poly dielectric, (b) is 75 ohm air insulated coax

> >in an 0.5" ID copper tube, (c) is balanced two-wire line made with
> >12AWG (~2mm) wire spaced 2" (~5cm) on centers), and (d) is two 0.625"
> >OD copper tubes spaced 3" on center.
> >
> >For a 1/8 wave section of line shorted at the far end, the calculated
> >impedances and Qs are:
> >
> >line a, 10MHz: 0.622+j50, Q=80
> >line a, 100MHz: 0.197+j50, Q=254
> >line a, 1000MHz: 0.0622+j50, Q=800
>
>
> I tried these numbers in the line loss calculator at
> http://www.vk1od.net/tl/tllce.php using Belden 8267 of 2.475m length
> for 0.125 wavelengths and Zload=0.0000000001. The input Z I got was a
> little higher at 0.88+j50 (probably slightly different approximation
> of Zo used in the calcs), yeilding a Q of 57. The Q is quite dependent
> on line length, decreasing as length increases towards a quarter wave.
>
> I suspect this is not a good method of analysing behaviour when the
> line elements are field coupled to other radiator elements, the
> currents in each leg are not necessarily equal and opposite.
>
> Owen
> --

1082. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 07:41:36 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <Gt-dnYvYHNqE2t7ZnZ2dnUVZ8sydnZ2d@bt.com>
Source record: 60874

You dim witts are calculating Q incorrectly.

Q = X / R

where R is the RF resistance of the conductor and X is the reactance
of the conductor's inductance. You first have to calculate
inductance.

You get a high Q at resonance.

Reg, G4FGQ

1083. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 10:43:57 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <38r6429t5021v46j4cb4a9047uf30bctr6@4ax.com>
Source record: 60875

On Mon, 17 Apr 2006 08:41:36 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>You dim witts are calculating Q incorrectly.
>

Reg, that is just so polite!

>Q = X / R
>
>where R is the RF resistance of the conductor and X is the reactance
>of the conductor's inductance. You first have to calculate
>inductance.
>

So, you state that the ratio X/R is an acceptable way to express the Q of an inductor, why is it unacceptable to express the Q of a two terminal device with an equivalent series impedance of 0.88+j50 (where 0.88 is the RF series resistance of the network and 50 is the series inductive reactance of the element) as 50/0.88 or 57?

Aren't the effiency implications (for that was the context) for a 50 ohm reactance created with a TL stub as described just the same as for a coil with 50 ohms of inductive reactance and 0.88 ohms of series (RF) resistance, ie a coil with the same Q factor?

Owen
--

1084. Re: paint antenna? Aluminum paint?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 11:37:26 UTC
From: Buck <not@this.time>
Message-ID: <8ev642pfr5fkvtc7tlvqr2b4164keg3s2q@4ax.com>
Source record: 60876

On Sun, 16 Apr 2006 21:48:26 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Buck wrote:
>> I have seen my father use aluminum paint from way back in the 60's. I
>> haven't seen it lately, not that I have looked, but I wonder how it
>> would work.....
>
>As a guess, very badly. The aluminum in the paint is in the form of
>small particles, each probably covered with an oxide coating. So the
>conductivity would be very poor, even if the paint dried in such a way
>as to bring the individual particles into contact with each other (which
>it very well might not).
>
>Roy Lewallen, W7EL

I figured there must be some problem with it's conductivity if someone
just invented paint to be conductive, but I hadn't tried it.

Thanks

--
73 for now
Buck
N4PGW

1085. Re: 50 years ago - Not antenna related, but probably interestingto many

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 13:44:00 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <44439BAB.1838A25A@shaw.ca>
Source record: 60877

Mike Coslo wrote:
>
> Tom Ring wrote:
> > I'm sure there are some here who will have memories stirred by this
> > article.
> >
> > http://tvtechnology.com/features/news/2006.04.12-n_the_video_tape_02.shtml
> >
>
> Great article, Tom. I'm a little surprised they didn't go into how the
> stuff was edited.
>
> - 73 de Mike KB3EIA -

Wire cutters?
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

1086. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 14:01:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <G-Odnex6r-WZPd7ZnZ2dnUVZ8s2dnZ2d@bt.com>
Source record: 60878

"Owen Duffy" <owen@no.where> wrote in message
news:38r6429t5021v46j4cb4a9047uf30bctr6@4ax.com...
> On Mon, 17 Apr 2006 08:41:36 +0100, "Reg Edwards"
> <g4fgq.regp@ZZZbtinternet.com> wrote:
>
> >You dim witts are calculating Q incorrectly.
> >
>
> Reg, that is just so polite!
>
> >Q = X / R
> >
> >where R is the RF resistance of the conductor and X is the
reactance
> >of the conductor's inductance. You first have to calculate
> >inductance.
> >
>
> So, you state that the ratio X/R is an acceptable way to express the
Q
> of an inductor, why is it unacceptable to express the Q of a two
> terminal device with an equivalent series impedance of 0.88+j50
(where
> 0.88 is the RF series resistance of the network and 50 is the series
> inductive reactance of the element) as 50/0.88 or 57?
>
> Aren't the effiency implications (for that was the context) for a 50
> ohm reactance created with a TL stub as described just the same as
for
> a coil with 50 ohms of inductive reactance and 0.88 ohms of series
> (RF) resistance, ie a coil with the same Q factor?
>
> Owen

Owen,
Please excuse my mild scold.

There is only ONE way to calculate Q of a coil or a wire and that is
the way I have described.

It is the ratio of inductive reactance to resistance of the wire, in
series with other. They cannot be measured in combination with each
other.

To do so results in something altogether different like measuring the input impedance of an antenna at or near resonance where the inductive reactance is tuned out by the capacitance and is therefore NOT measured.

It is elementary my dear Watson.

Reg.

1087. Antenna Sharing for Marine - Weather Fax/NavTex and SSB-DSC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 14:56:55 UTC
From: Wet-n-Wild Bill <snews@news.us>
Message-ID: <oYOdnZ3Y1M8qMd7ZRVn-jw@wavecable.com>
Source record: 60879

I have an ICOM M-802 SSB and a Furuno FAX-30 (Weather Fax Reciever) onboard my boat. The ICOM M-802 has a dedicated receive port for DSC Receive. Can I share the FAX-30 Antenna with the DSC receive port of the SSB? if so what coupler should i use? (The SSB Xmit/Rec antenna is 3meters away)

Bill

1088. Re: Antenna Sharing for Marine - Weather Fax/NavTex and SSB-DSC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 14:59:38 UTC
From: Wet-n-Wild Bill <snews@news.us>
Message-ID: <YYKdnZRQSPDGMN7ZRVn-jw@wavecable.com>
Source record: 60880

forgot to mention: the freq of theWeather Fax is the same as the SSB 2-25
MHZ

Bill

"Wet-n-Wild Bill" <snews@news.us> wrote in message
news:oYOdnZ3Y1M8qMd7ZRVn-jw@wavecable.com...
>I have an ICOM M-802 SSB and a Furuno FAX-30 (Weather Fax Reciever) onboard
>my boat. The ICOM M-802 has a dedicated receive port for DSC Receive. Can
>I share the FAX-30 Antenna with the DSC receive port of the SSB? if so what
>coupler should i use? (The SSB Xmit/Rec antenna is 3meters away)
>
> Bill
>

1089. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 15:27:29 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145287649.748876.261840@j33g2000cwa.googlegroups.com>
Source record: 60881

Reg, old sot, you need to either quit drinking so much or go back to the fundamental definition of Q. The Q of a coil or capacitor is always an abstraction from the definition. In any event, trying to use a coil or a stub at or near its self (anti)resonance to get an inductive reactance is a really bad plan. You can't separate the self-capacitance from the coil or the stub, so assuming only the reactance from the wire's inductance does you no good at all in that case. As a resonator, it's fine. As an inductive loading component (which is the topic of this thread), it sucks.

Cheers,
Tom

1090. Re: Antenna Sharing for Marine - Weather Fax/NavTex and SSB-DSC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 15:34:34 UTC
From: chuck <nospam@nospam.net>
Message-ID: <eAO0g.8149$i41.2098@newsread1.news.atl.earthlink.net>
Source record: 60882

Wet-n-Wild Bill wrote:
> forgot to mention: the freq of theWeather Fax is the same as the SSB 2-25
> MHZ
>
> Bill
>
>
> "Wet-n-Wild Bill" <snews@news.us> wrote in message
> news:oYOdnZ3Y1M8qMd7ZRVn-jw@wavecable.com...
>
>>I have an ICOM M-802 SSB and a Furuno FAX-30 (Weather Fax Reciever) onboard
>>my boat. The ICOM M-802 has a dedicated receive port for DSC Receive. Can
>>I share the FAX-30 Antenna with the DSC receive port of the SSB? if so what
>>coupler should i use? (The SSB Xmit/Rec antenna is 3meters away)
>>
>>Bill
>>
>
>
>

The FAX-30 can handle a variety of antennas. Do you have the FAX-5 active antenna? You can probably connect the M-802 DSC port and the FAX-5/FAX-30 together through a simple coax tee connector. There is not likely to be any interaction between the devices. If interactions should arise, the simplest solution is a coax switch. The switch would be left in the DSC position except when using the FAX-30.

As a precaution, you might contact Furuno and get their opinion. I would think the "dual use" potential for the FAX-5 antenna would be a selling point for Furuno and cause them to give your question a serious response. The question of a separate DSC antenna for the M-802 is likely to be around for a while.

Good luck.

Chuck

1091. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 16:18:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <beudnUqRDuW0Xd7ZRVny2Q@bt.com>
Source record: 60883

Just an afterthought.

Q is dimensionless quantity. Therefore it cannot be measured directly.

It is always obtained as the CALCULATED ratio of TWO independent
measurements or previous calculations.

Its only use is to predict, by further calculation, other properties
of a circuit such as bandwith or voltage magnification. It is just a
convenient intermediary which can frequently be bypassed or done
without.

It can seldom be determined accurately which is a measure of its true
worth. Your guess is as good as mine at high frequencies.

The common or garden Q meter indicates only the resistance of a coil
relative to a standard of some sort. The coil's inductive reactance
is already known, or is related to the capacitor and frequency, or can
otherwise be calculated. Here you still have a pair of independent
measurable quantities.

I'd better stop here. The subject has been over-complicated quite
enough. Here in the Black Country, the weather is beautifully fresh.
Spring is well on its way.

Reg.

1092. Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 18:56:19 UTC
From: Hi <no@spam>
Message-ID: <1247p6p3cdursca@corp.supernews.com>
Source record: 60884

This is a horizontally powerized omni slot antenna.

http://tinyurl.com/kbwkf

Does anyone know if its possible to make a vertically polerized omni slot antenna?

Matt

1093. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 19:29:30 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145302170.914834.97730@v46g2000cwv.googlegroups.com>
Source record: 60885

If I recall correctly, nope.

A vertically polarized slot antenna will have an azimuth pattern like a dipole.

If you want a vertically polarized omnidirectional antenna, you build a collinear array of vertical elements. If you want a horizontally polarized omnidirectional antenna, you build a collinear array of everything EXCEPT those elements, and feed that. A slot radiates the same way that an antenna element of the same size and shape would radiate, but the E and H fields are interchanged, and therefore has the opposite polarization.

Look up Babinet.

73,
Dan
N3OX
www.n3ox.net

1094. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 19:31:03 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145302263.579239.188350@j33g2000cwa.googlegroups.com>
Source record: 60886

Wow, Matt, that must be close to a record: three uses of "polarized" and they are all spelled differently (and all, um, 'non-standard').

A vertical slot antenna is horizontally polarized. A horizontal slot antenna, while vertically polarized, emits in a standard dipole azimuth pattern. You could try a pair of crossed horizontal slot antennas, fed 90 degrees out of phase, like the "turnstile" crossed dipole antenna. (I don't see how you would actually do it, but you could try.) But why bother, when it's easy to make an omnidirectional vertically polarized antenna in other ways? I'm not saying there couldn't be reasons for doing it, but please let us know what they are.

Cheers,
Tom

1095. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 19:34:44 UTC
From: Hi <no@spam>
Message-ID: <1247reqls3891e0@corp.supernews.com>
Source record: 60887

> If I recall correctly, nope.
>
> A vertically polarized slot antenna will have an azimuth pattern like a
> dipole.

I was thinking if the slots were cut horizontally rather then vertically.
Won't work?

Matt

> If you want a vertically polarized omnidirectional antenna, you build a
> collinear array of vertical elements. If you want a horizontally
> polarized omnidirectional antenna, you build a collinear array of
> everything EXCEPT those elements, and feed that. A slot radiates the
> same way that an antenna element of the same size and shape would
> radiate, but the E and H fields are interchanged, and therefore has the
> opposite polarization.
>
> Look up Babinet.
>
> 73,
> Dan
> N3OX
> www.n3ox.net
>

1096. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 19:38:14 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145302694.326176.138590@g10g2000cwb.googlegroups.com>
Source record: 60888

It will be an antenna, it will be vertically polarized, but it won't be omnidirectional. It will look just like the familiar horizontal dipole pattern.

-Dan

1097. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 20:11:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nvs742hsciu5oeag5po42jpu9qae5u9kde@4ax.com>
Source record: 60889

On Mon, 17 Apr 2006 14:34:44 -0500, "Hi" <no@spam> wrote:

>I was thinking if the slots were cut horizontally rather then vertically.
>Won't work?

Hi Matt,

No, it won't.

73's
Richard Clark, KB7QHC

1098. Source for antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 20:17:21 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <lJS0g.3434$B42.3020@dukeread05>
Source record: 60890

I need a compact antenna for receiving from 0.030-1.800 mhz - I
figure an active antenna will work - does anyone have links to either
a build it yourself article or a commercial antenna? Receiver overload
is NOT a big issue (TS-850SAT).....

--
73's de Ken KG0WX - Kadiddlehopper #11808,
Flying Pigs #-1055, Grid EM17io,
TS-850SAT, Elecraft XG2,
Tenna Dipper, Heath GD-1B

1099. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 20:53:27 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145303985.792386.114170@z34g2000cwc.googlegroups.com>
Source record: 60891

That (your afterthought) is much more like it. Thanks.

After all, this is NOT a thread about Q, it's a thread about the effectiveness of different two-terminal devices for use in inductively loading a linear radiator. In that case, the measured impedance, that is, the measured X and R, of the two-terminal device is indeed what matters. Given that we need a particular X, a high ratio of measured X to measured R is advantageous, since the R term represents dissipation. Maybe we should invent a new term and define it thus:

Xiddle = X(measured)/R(measured)

where Xiddle is to be pronounced "Ziddle," and rhymes with "piddle." Or, we could just use the shorthand that W8JI elected to use AND DEFINE in his posting: Q=X(meas)/R(meas).

Just as you say, Q is only an intermediate on the path to something more interesting. It works for me if someone wants to offer a slightly non-standard definition, so long as the definition is clear, as it was to me from W8JI's post.

Thanks for mentioning the Black Country. It was an education for me to look it up. Spring is trying to gain a toehold here, but it's a bit tenuous. Got up to a couple feet of new snow in the hills over the weekend.

Cheers,
Tom

(PS--where do you find gardens that grow "Q meters"? Or are they the things that invade the garden to try to eat the qms?)

1100. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 21:07:41 UTC
From: Dave <noone@nowhere.com>
Message-ID: <nKadndUFt7QxntnZRVn-jQ@crocker.com>
Source record: 60892

now that you guys have had fun with Q... how about trying the practical aspects of the originally stated problem? how would the described element loading compare with, lets say, a 40-2cd element? bandwidth? coupling between yagi elements?? losses?

"K7ITM" <k7itm@msn.com> wrote in message news:1145303985.792386.114170@z34g2000cwc.googlegroups.com...
> That (your afterthought) is much more like it. Thanks.
>
> After all, this is NOT a thread about Q, it's a thread about the
> effectiveness of different two-terminal devices for use in inductively
> loading a linear radiator. In that case, the measured impedance, that
> is, the measured X and R, of the two-terminal device is indeed what
> matters. Given that we need a particular X, a high ratio of measured X
> to measured R is advantageous, since the R term represents
> dissipation. Maybe we should invent a new term and define it thus:
>
> Xiddle = X(measured)/R(measured)
>
> where Xiddle is to be pronounced "Ziddle," and rhymes with "piddle."
> Or, we could just use the shorthand that W8JI elected to use AND DEFINE
> in his posting: Q=X(meas)/R(meas).
>
> Just as you say, Q is only an intermediate on the path to something
> more interesting. It works for me if someone wants to offer a slightly
> non-standard definition, so long as the definition is clear, as it was
> to me from W8JI's post.
>
> Thanks for mentioning the Black Country. It was an education for me to
> look it up. Spring is trying to gain a toehold here, but it's a bit
> tenuous. Got up to a couple feet of new snow in the hills over the
> weekend.
>
> Cheers,
> Tom
>
> (PS--where do you find gardens that grow "Q meters"? Or are they the
> things that invade the garden to try to eat the qms?)
>

1101. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 21:28:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <wOKdnTpoqZt5ldnZRVnyiQ@bt.com>
Source record: 60893

Just a second afterthought.

The measured impedance of a 2-terminal device tells you next to
nothing about it. It certainly does not tell you the Q.

To find anything useful about it, it is necessary to shift frequency
and make a SECOND measurement.

So we return, yet again, to a pair of independent measurements or
calculations in order to obtain a ratio.

A ratio has two degrees of freedom. I just love that phrase. I/ve been
waiting for years just to mention it.

Reg.

1102. Re: Thomas & Betts UV Resistant Tie Wraps: Any Experiences With For Out Of Door Usage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 21:31:24 UTC
From: Hal Rosser <hmrosser@bellsouth.net>
Message-ID: <FLT0g.3796$MM6.2039@bignews3.bellsouth.net>
Source record: 60894

"Dave Heil" <k8mn@earthlink.net> wrote in message
news:HmE0g.3434$Fy2.1460@newsread3.news.pas.earthlink.net...
> I used to sell the things in large quantities while working for a
> Cincinnati electronics distributor. The T&B's are pricey, but for a
> reason. They have a stainless steel barb to lock the ty-wrap (their
> trademarked name for the devices).
****
That's right. but the regestered name is TyRap. TY525M was the best selling
one we sold.
****

1103. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 21:40:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7q1842h2c3q4he2m5dbefcb0dpvbjfu5he@4ax.com>
Source record: 60895

On Mon, 17 Apr 2006 21:07:41 -0000, "Dave" <noone@nowhere.com> wrote:

> how would the described element loading compare

Hi Dave,

Without some expression of what you might find acceptable, or unacceptable, comparisons are condemned to vagueness, or extreme elaboration.

>with, lets say, a 40-2cd element?

Approx. the same;

>bandwidth?

Approx. the same;

>coupling between yagi elements??

Greater, forcing a different geometry.

>losses?

Approx. the same.

There is nothing in your question that breaks new ground, and substituting equivalent components really only shuffles a few design parameters. Such shuffling may entail considerable tedium in implementation details, but you say nothing of what passes for good or bad. We could equally rend the correspondence bandwidth here into the equivalent tedium of quoting the partial dB differences - that has been good for more than a thousand posts so far.

One of our infrequent correspondents here would substitute metal tubing for bamboo wrapped with metalized mylar film. He couldn't expect any gain in this swap, nor could we point out any considerable loss; but let's face it, the market is not rushing to build antennas this way because there is no economic nor technical justification.

Thus, the only advantage is one of marketing. If you cannot quote a gain advantage, you can at least argue conservation because you are doing Green DXing with Bamboo elements and recycled weather balloons.

So it comes down to a familiar question: What's your point?

73's
Richard Clark, KB7QHC

1104. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 23:08:39 UTC
From: Hi <no@spam>
Message-ID: <12487vvg8511g57@corp.supernews.com>
Source record: 60896

>>I was thinking if the slots were cut horizontally rather then vertically.
>>Won't work?
>
> Hi Matt,
>
> No, it won't.

Thanks for the response. Any sort of waveguide based antenna that will work as vertical omni?

Matt

1105. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-17 23:39:32 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145317172.067738.100500@i40g2000cwc.googlegroups.com>
Source record: 60897

:-)

How nice it is to have modern instruments which cover a wide range of frequencies in one simple measurement setup, display the results in any of an array of formats, and even store the measurement results for use in a variety of analysis programs.

(Sometimes, it's even nicer to just escape from them altogether.)

Cheers,
Tom

1106. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 00:23:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9kW0g.11860$4L1.1293@newssvr11.news.prodigy.com>
Source record: 60898

Roy Lewallen wrote:
> The amount the magnitude of the current drops across an inductor is
> determined primarily by the amount of inductance and the capacitance
> from the inductor to ground or the other half of the antenna. This is
> easily explained by simple lumped constant circuit theory.

How does lumped constand circuit theory handle the phase shift through
the inductance? It is certainly NOT zero as your measured.
--
73, Cecil http://www.qsl.net/w5dxp

1107. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 00:25:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <GlW0g.11861$4L1.1736@newssvr11.news.prodigy.com>
Source record: 60899

Gene Fuller wrote:
> I gave you a very specific reference to demonstrate your supposition was
> incorrect. You came back with nothing but, "Because I say so." You have
> not offered one shred of backing for your constant Vf argument.

Good Grief, Gene, can't I have a 6 day motorcycle in piece without
you saying something that is not true?
--
73, Cecil http://www.qsl.net/w5dxp

1108. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 00:25:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gmW0g.11862$4L1.9223@newssvr11.news.prodigy.com>
Source record: 60900

Gene Fuller wrote:
> Do you suppose that maybe the displacement current can actually work in
> either direction?

I guess magical thinking works in any directions.
--
73, Cecil http://www.qsl.net/w5dxp

1109. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 00:26:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0nW0g.11863$4L1.11529@newssvr11.news.prodigy.com>
Source record: 60901

K7ITM wrote:
> Yes, some time earlier today than that exchange, I posted elsewhere in
> this thread a specific circuit, complete with values, how the same
> thing is easily accomplished with the infamous ideal lumped components.
> No standing waves need apply. But of course if one used distributed
> reactances, one could easily get the same effect, and the analysis can
> easily be done w/o any reference to standing or travelling waves.

How about the phase shift?
--
73, Cecil http://www.qsl.net/w5dxp

1110. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 00:30:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <VqW0g.11864$4L1.4800@newssvr11.news.prodigy.com>
Source record: 60902

w8ji@akorn.net wrote:
> What it is NOT possible to do is make a coil change current without
> that third path to the outside world. Standing waves will not do it,
> missing antenna degrees will not do it.

That's a really strange thing to say, Tom. It happens all the time
inside a piece of coax with reflections. There's no third path to
the outside world, yet the standing waves inside a piece of coax
certainly cause the current to change.
--
73, Cecil http://www.qsl.net/w5dxp

1111. 40 meter beam for sale

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 00:50:21 UTC
From: Ed <none@this.time>
Message-ID: <hJW0g.2536$Lm5.1773@newssvr12.news.prodigy.com>
Source record: 60903

M Squared brand, model 40M3L. Several years old but never unboxed, stored inside, dusty but new in every way. Present price is $1092.00, I will take $650 for it. Pick-up only in Dallas, Texas. KV5I
eh54@sbcglobal.net

1112. Re: Antenna Sharing for Marine - Weather Fax/NavTex and SSB-DSC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 02:55:35 UTC
From: Wet-n-Wild Bill <snews@news.us>
Message-ID: <V86dnTzzz8RPydnZRVn-jQ@wavecable.com>
Source record: 60904

Chuck

Thanks! I was thing about a TEE and was concerned about the front end of each receiver.

Yes i do have the FAX-5 antenna installed.

And a coax switch may be the next option before mounting another whip!

What about a discone antenna, other than looks onboard a boat!

Bill

"chuck" <nospam@nospam.net> wrote in message
news:eAO0g.8149$i41.2098@newsread1.news.atl.earthlink.net...
> Wet-n-Wild Bill wrote:
>> forgot to mention: the freq of theWeather Fax is the same as the SSB
>> 2-25 MHZ
>>
>> Bill
>>
>>
>> "Wet-n-Wild Bill" <snews@news.us> wrote in message
>> news:oYOdnZ3Y1M8qMd7ZRVn-jw@wavecable.com...
>>
>>>I have an ICOM M-802 SSB and a Furuno FAX-30 (Weather Fax Reciever)
>>>onboard my boat. The ICOM M-802 has a dedicated receive port for DSC
>>>Receive. Can I share the FAX-30 Antenna with the DSC receive port of the
>>>SSB? if so what coupler should i use? (The SSB Xmit/Rec antenna is
>>>3meters away)
>>>
>>>Bill
>>>
>>
>>
>>
> The FAX-30 can handle a variety of antennas. Do you have the FAX-5 active
> antenna? You can probably connect the M-802 DSC port and the FAX-5/FAX-30
> together through a simple coax tee connector. There is not likely to be
> any interaction between the devices. If interactions should arise, the
> simplest solution is a coax switch. The switch would be left in the DSC
> position except when using the FAX-30.
>
> As a precaution, you might contact Furuno and get their opinion. I would
> think the "dual use" potential for the FAX-5 antenna would be a selling
> point for Furuno and cause them to give your question a serious response.

> The question of a separate DSC antenna for the M-802 is likely to be
> around for a while.
>
> Good luck.
>
> Chuck

1113. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 03:03:56 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <LGY0g.147$f6.108@fe12.lga>
Source record: 60905

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:mkq342pdgumknhuh368nkupcseahm5etd5@4ax.com...
> On Sat, 15 Apr 2006 12:06:45 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>>As far as acting as loading element, it is another form of (real life)
>>loading inductance, so it is similar to loading coil, but worse performer
>>in
>>the loaded Yagi situation. Have look at the end of my article
>>http://www.k3bu.us/loadingcoils.htm
>
> Hi Yuri,
>
> Now, when we actually "look" at the design at your link, we find we
> don't know much about:

Here is the information from my web site as described by Barry, W9UCW:

"Here are some actual measurements of current below and above loading coils.
92" mast, using a HI-Q coil (openwound airdux, 2 1/2"d) with small
thermocouple type meters mounted on the insulated coil support. First for
40m, moving the coil in the mast from base to center to top (with hat) and
reresonating.
Base --100ma below & 66ma above
Center --100ma below & 45ma above
Top --100ma below & 37ma above

Then, same test but for 30m
Base --100ma below & 75ma above
Center --100ma below & 60ma above
Top --100ma below & 52ma above

On a long, skinny 160 resonator with 25pf of top hat and whip, mounted on an
8' mast, I read 100ma below and 65ma above the coil.

Because of the constant claim that this must be due to the fact that the
coil is so big compared to a wavelength, I measured the in and out current
on a TOROIDAL loading coil used on a 20m mobile antenna. It was a 78" base
mast (including spring and mount) with a 38" top whip (including 12" of
alum. tubing for adjustment).
Below --100ma & Above --79ma
When I moved the coil to the top of the mast and made a horizontal "X" top
hat to resonate it back on the same freq, I got
Below --100ma & Above --47ma

So, It happens even in a totally shielded loading coil with miniscule power going thru it! Kirchoff has no laws about current being the same on both ends of inductors. His current law is about one POINT in a circuit and his voltage law is about a closed loop."
... and some significant difference W9UCW in field strength measured between the base and center loading coil:

"The actual difference in signal strength between top and base loading of a 9' antenna is about 16 db (measured) on 75m, but Tom calculates 8db on 160. That's because he assumes the same current in the coil. Actually it's worse on 160 than 75."

> 1. How tall the antenna is (never said);

He said - 92" simulating mobile whip.

> 2. How long the radials are (never said);

Radials laid on the ground are non resonant, doesn't matter much, but there were enough of them (I remember him mentioning at least 32)

> 3. How many turns in the coil (have to squint and count and hope);

Coild is of good quality (aka Texas Bugcatcher), what is important that it was adjusted to bring antenna to 90 electr. degrees - RESONANCE.

> 4. How long the coil is (you gotta guess);

Same as 3, in each test, enough to resonante on band of test (40, 30, 80)

> 5. What frequency this resonates at (well, actually it doesn't say it
> resonates anywhere);

Ham bands 40, 30, 80 and 160 is where they measured the currents.

> 6. What the drive point Z is (as if that mattered)

Not important as long as antenna is resonant on frequency in question. The power was adjusted to show 100 ma full scale on the bottom of the coil and read on the same type of meter on the top.

> But we do know that some one can find
> 7. The current into the coil and;
> 8. The current out of the coil;
> 9. which according to breathless reports makes all the difference in
> the world,
>

Picture of REALITY vs. phasors, distributed baloney, pink electrons, bla, bla ... why it "could not be".
More appropriate assesment would be "significant", which you can judge by his comment about 16 dB vs. 8 dB "calculated" by W8JI
Anyone can duplicate the test and verify the results and claims, instead of displaying their ignorance of reality.

> until
> 10. I threw away that trash coil, replaced it with a distributed load
> (aka shorted transmission line) and boosted the performance.
>

And you did that, and measured it, right?
It has been proven in real life and measurements that "trash" coil performs better in the loaded Yagi design that loading stub (distributed load). It has been done, described and measured by at least three happy owners of modified KLM 2 or 3 el. loaded Yagis on 80. Improved gain and pattern, F/B.

Interesting that the "problems" with loading coils and same current affcionados "know it" based on their (faulty) theories. W8JI attributes his mental state to others to "prove" his "right" which will end up being big egg in his face.

Interesting, that question about loading stubs has "matured" to this also, instead of providing some answers for David.
This is my last contribution to this thread.

> 73's
> Richard Clark, KB7QHC

73 Yuri, K3BU

1114. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 04:04:41 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <tzZ0g.8891$yQ.5838@trnddc07>
Source record: 60906

"Hi" <no@spam> wrote in message news:1247p6p3cdursca@corp.supernews.com...
> This is a horizontally powerized omni slot antenna.
>
> http://tinyurl.com/kbwkf
>
> Does anyone know if its possible to make a vertically polerized omni slot
> antenna?
>
> Matt

Hi Matt

You probably want an antenna with an omniazimuth, vertically polarized pattern and some elevation plane narrowing, ie Gain
It is very easy to build a flush mounted antenna that has the radiation pattern shape equivalent to a quarter wave monopole. Although that would satisfy the specs you have presented, I doubt the broad elevation plane pattern is what you are looking foe since the kbwkf site shows antennas with gain.

Search on Annular Slot for info on a flush mounted antenna with the vertically polarized omniazimuth antenna.

Jerry

1115. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 05:18:57 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145337537.742840.315710@j33g2000cwa.googlegroups.com>
Source record: 60907

So I guess the annular slot is the complement to a halo?

1116. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 05:38:51 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <LX_0g.1180$_s5.1055@trnddc04>
Source record: 60908

<n3ox.dan@gmail.com> wrote in message
news:1145337537.742840.315710@j33g2000cwa.googlegroups.com...
> So I guess the annular slot is the complement to a halo?

Since I think of a halo as a loop in a plane parallel to the ground, it is difficult for me to make a comparison of it to a monopole antenna pattern.

My suggestion would be for you to re-define your needs. There are some really good antenna designers contributing to this group.

1117. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 06:43:36 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <at1942d6ggdodokprjb323mishbve7irhh@4ax.com>
Source record: 60909

On Mon, 17 Apr 2006 18:08:39 -0500, "Hi" <no@spam> wrote:
>Thanks for the response. Any sort of waveguide based antenna that will work
>as vertical omni?

Hi Matt,

You are bucking the dominant waveguide mode with the design you've
found. Turning the slots will kill it. Just turn the design you've
found sideways.

The alternative is you choose a larger waveguide and introduce iris
apertures inside the waveguide to force a mode that would allow turned
slots. This is all in presumption that you want a vertically oriented
fixture (taller than wide) to give you vertically polarized signals.

Other options include horns and truncated parabolic reflectors - or
something as simple as a 90 degree sweep with a small flared opening
for matching. This would no longer make it omni though.

73's
Richard Clark, KB7QHC

1118. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 07:21:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <403942te0vdkte65fo3rsgcuga3t2pqtki@4ax.com>
Source record: 60910

On Mon, 17 Apr 2006 23:03:56 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>> Now, when we actually "look" at the design at your link, we find we
>> don't know much about:
>
>Here is the information from my web site as described by Barry, W9UCW:

This is still insufficient even for a partial description.

>"Here are some actual measurements of current below and above loading coils.
> 92" mast, using a HI-Q coil (openwound airdux, 2 1/2"d) with small

92" does not agree with other numbers offered.

snip

>On a long, skinny 160 resonator

The coil shown is no such thing.

>with 25pf of top hat and whip

I frankly don't accept the description of "25pf of top hat and whip"
because there is absolutely no supporting discussion, measurements, or
modeling. This is "blue sky" reporting.

>, mounted on an
>8' mast, I read 100ma below and 65ma above the coil.

An 8' mast equates to 92" mast which leaves no room for a whip, that,
or the whip is unspecified.

snip
>a 20m mobile antenna. It was a 78" base
>mast (including spring and mount) with a 38" top whip (including 12" of
>alum. tubing for adjustment).

Which has absolutely nothing to do with your published page. It is
bad enough to fight for details with one obscure design, to then
australian tag match for two obscure antennas.

snip

>> 1. How tall the antenna is (never said);
>He said - 92" simulating mobile whip.

This is incorrect from the your statements offered above. The ANTENNA
is larger, that much is obvious.

>> 2. How long the radials are (never said);
>Radials laid on the ground are non resonant, doesn't matter much, but there
>were enough of them (I remember him mentioning at least 32)

This does not answer the question.

>> 3. How many turns in the coil (have to squint and count and hope);
>Coild is of good quality (aka Texas Bugcatcher),

This does not answer the question.

>what is important that it
>was adjusted to bring antenna to 90 electr. degrees - RESONANCE.

The coil is stock, there was no adjustment made, that is quite
obvious. Further, nothing was resonated. This page's material came
from a jury-rigged set-up for a kangaroo court proof. The antenna was
not resonated the tuning was performed in the shack. Twist enough
knobs to jimmy a current was the name of the game here.
>
>> 4. How long the coil is (you gotta guess);
>
>Same as 3, in each test,

This does not answer the question.

>enough to resonante on band of test (40, 30, 80)

Yuri, you are pissing on our legs and telling us it is raining. One
coil, one mast, one whip, does not resonate on three bands. You guys
were twisting knobs, not resonating a radiator with a load.

>> 5. What frequency this resonates at (well, actually it doesn't say it
>> resonates anywhere);
>
>Ham bands 40, 30, 80 and 160 is where they measured the currents.

Impossible, the coil is much to small for such a small radiator to
resonate in 160M band, the rest of these claims are equally invalid by
the simple observation of the content at your page and the poor
responses to technical questions above.

>> 6. What the drive point Z is (as if that mattered)
>
>Not important as long as antenna is resonant on frequency in question.

This is simply your way of saying you don't know and you couldn't find
out. Further, nothing was resonant - it would take far more details
that you don't have to make it happen. Again, you just don't know.

>> until
>> 10. I threw away that trash coil, replaced it with a distributed load
>> (aka shorted transmission line) and boosted the performance.
>>
>

>And you did that, and measured it, right?

Yes.

>It has been proven in real life and measurements that "trash" coil performs
>better in the loaded Yagi design that loading stub (distributed load). It
>has been done, described and measured by at least three happy owners of
>modified KLM 2 or 3 el. loaded Yagis on 80. Improved gain and pattern, F/B.

And they aren't here are they? Tell us the found the missing WMD and
that would make them real heroes.

>This is my last contribution to this thread.

You over-rate it considerably. No doubt we will hear more on this,
but that won't be contribution either.

73's
Richard Clark, KB7QHC

1119. Re: paint antenna? Aluminum paint?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 12:45:13 UTC
From: John Minkjan <john.minkjan@gmail.com>
Message-ID: <1145364313.015828.316220@j33g2000cwa.googlegroups.com>
Source record: 60911

A bit pricy,

But it can be done:
http://www.lessemf.com/paint.html

73 John (PH9Z)

1120. Re: Antenna Sharing for Marine - Weather Fax/NavTex and SSB-DSC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 13:13:34 UTC
From: chuck <nospam@nospam.net>
Message-ID: <2C51g.6394$sq5.4474@newsread2.news.atl.earthlink.net>
Source record: 60912

Wet-n-Wild Bill wrote:
> Chuck
>
> Thanks! I was thing about a TEE and was concerned about the front end of
> each receiver.
>
> Yes i do have the FAX-5 antenna installed.
>
> And a coax switch may be the next option before mounting another whip!
>
> What about a discone antenna, other than looks onboard a boat!

Yeah, it'd be great! But unless you are on an aircraft carrier or
battleship, you couldn't fit a discone for HF on a small cruising boat.
The smaller VHF discones wouldn't help you much with HF weatherfax or HF
DSC reception.

Chuck

>
> Bill
>
>
> "chuck" <nospam@nospam.net> wrote in message
> news:eAO0g.8149$i41.2098@newsread1.news.atl.earthlink.net...
>
>>Wet-n-Wild Bill wrote:
>>
>>>forgot to mention: the freq of theWeather Fax is the same as the SSB
>>>2-25 MHZ
>>>
>>>Bill
>>>
>>>
>>>"Wet-n-Wild Bill" <snews@news.us> wrote in message
>>>news:oYOdnZ3Y1M8qMd7ZRVn-jw@wavecable.com...
>>>
>>>
>>>>I have an ICOM M-802 SSB and a Furuno FAX-30 (Weather Fax Reciever)
>>>>onboard my boat. The ICOM M-802 has a dedicated receive port for DSC
>>>>Receive. Can I share the FAX-30 Antenna with the DSC receive port of the
>>>>SSB? if so what coupler should i use? (The SSB Xmit/Rec antenna is
>>>>3meters away)
>>>>
>>>>Bill

>>>>
>>>
>>>
>>>
>>The FAX-30 can handle a variety of antennas. Do you have the FAX-5 active
>>antenna? You can probably connect the M-802 DSC port and the FAX-5/FAX-30
>>together through a simple coax tee connector. There is not likely to be
>>any interaction between the devices. If interactions should arise, the
>>simplest solution is a coax switch. The switch would be left in the DSC
>>position except when using the FAX-30.
>>
>>As a precaution, you might contact Furuno and get their opinion. I would
>>think the "dual use" potential for the FAX-5 antenna would be a selling
>>point for Furuno and cause them to give your question a serious response.
>>The question of a separate DSC antenna for the M-802 is likely to be
>>around for a while.
>>
>>Good luck.
>>
>>Chuck
>
>
>

1121. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 13:22:13 UTC
From: K7JEB <k7jeb.remove.this@qsl.net>
Message-ID: <5tn9425gk084gkongfvun0v4k5nruelqri@4ax.com>
Source record: 60913

On Mon, 17 Apr 2006 13:56:19 -0500, "Hi" <no@spam> wrote:

>This is a horizontally powerized omni slot antenna.
>http://tinyurl.com/kbwkf
>Does anyone know if its possible to make a
>vertically polerized omni slot antenna?
>Matt

One can be made, but the slots have to be
oriented at a slant on the waveguide. The
trick is to make alternate slots radiate
the horizontal component of their slanted
polarization out of phase but have the
vertical component radiated in-phase. This
is a bit tricky and requires a detailed
knowledge of the standing-wave pattern inside
the waveguide at the frequencies of interest
(and therefore is left as an exercise for the
student).

Jim, K7JEB

1122. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 13:43:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <E161g.72286$dW3.51822@newssvr21.news.prodigy.com>
Source record: 60914

Yuri Blanarovich wrote:
> Kirchoff has no laws about current being the same on both
> ends of inductors. His current law is about one POINT in a circuit ...

But Yuri, a lumped circuit inductance is a point so it must
have the same current on each side of that point. :-)

It is interesting that, although any coil can be positioned
in the standing wave environment such that the current at
each end of the coil has the same magnitude, only *ONE* of
the many measurements showed the same current at both ends.
--
73, Cecil http://www.qsl.net/w5dxp

1123. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 13:57:04 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Qe61g.72289$dW3.11531@newssvr21.news.prodigy.com>
Source record: 60915

Gene Fuller wrote:
> I gave you a very specific reference to demonstrate your supposition was
> incorrect. You came back with nothing but, "Because I say so." You have
> not offered one shred of backing for your constant Vf argument.

Where the heck have you been? The equation for VF is equation (32)

at: http://www.ttr.com/TELSIKS2001-MASTER-1.pdf

Just before that equation for VF is a geometry test for the
coil in question. A 75m bugcatcher coil passes that test.

The velocity factor equation contains helix diameter, turns
per unit length, and wavelength. If we keep those three
quantities constant, the VF of a coil should remain constant
while varying the length of the coil.

The problem encountered previously was we kept the coil length
constant while varying the frequency. That does change the VF.
But this time we are keeping frequency constant.
--
73, Cecil http://www.qsl.net/w5dxp

1124. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 14:24:07 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <hE61g.276$x21.189@fe12.lga>
Source record: 60916

OK one more time.
We had argument about current in antenna loading coils, one bunch says it is different, another bunch says it is, has to be the same, no way can it be different.

Instead of trying to verify the reality on real antennas, with real, typical hardware and measure it or show that there is something wrong with what we so far presented, we see "theoretical reasons" why it can't be and nitpicking on tangents leading to la-la land, instead of hitting the "meat" of the argument.
Suit yourself. No one said that W9UCW did all the different band experiments with the same setup in the picture. He showed one picture, proof that current CAN be different at two ends of a loading coil, which W8JI and his worshippers claim it CAN NOT BE.
Show us your setup, description and details showing that in all cases current IS ALWAYS (or almost) the SAME!

There is really no point of arguing any more here. I will do the tests and with help of "our campers" we will present comprehensive article on the subject.
I would like to thank you all, including "current nonbelievers" for their opposition, because they highlighted how much misinformation (50 years) and false "science" is out there and helped us to understand the depth and reasons for the current in the loading coil behavior, and especially for the need to set the record straight and help to improve the modeling of loaded antennas.

The rest will be reported on my web site, which I will consolidate and bring up to date in the next few days at www.K3BU.us Then you can nitpick or provide critique. There is no point in arguing, when Cecil asks why is there higher current at the top of the coil and "unbelievers" are mum or keep rattling off their but, but, but...
IT IS STANDING WAVE CURRENT and VOLTAGE along the resonator, get it?
What's next? Denying that there is a daylight, when the sun is out?

73 +
Yuri, K3BU

1125. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 15:24:52 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <8x71g.16786$tN3.2021@newssvr27.news.prodigy.net>
Source record: 60917

K7ITM wrote:
> :-)
>
> How nice it is to have modern instruments which cover a wide range of
> frequencies in one simple measurement setup, display the results in any
> of an array of formats, and even store the measurement results for use
> in a variety of analysis programs.
>
> (Sometimes, it's even nicer to just escape from them altogether.)
>
> Cheers,
> Tom
>

It's not quite so nice, though, when you develop a psychotic addiction
to measuring which sends you to the poorhouse for buying expensive
equipment, and to the therapist for treatment of your
obsession.
73,
Tom Donaly, KA6RUH

1126. M2 6 Meter Yegis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 15:28:45 UTC
From: Phil <k6eid@bellsouth.net>
Message-ID: <sx71g.22108$Kh5.19147@bignews8.bellsouth.net>
Source record: 60918

I am thinking for replacing my old Creative Design CL-6A 5 element 6 meter yagis with one of the M Squared antennas, either a 6M7, 6M7JHV, or a 6M2WLC. Does anyone know where there's any comparatiuve data on them or where there are product reviews on the 6M7 or 6M2WLC (the JHV was in QST a few years back)?

Thanks

Phil Finkle K6EID

1127. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 15:38:51 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145374731.833215.126530@t31g2000cwb.googlegroups.com>
Source record: 60919

I'm not the one designing the antenna. I'd build a collinear. I'm just interested in the properties of the annular slot.

What I mean by "I guess the annular slot is the complement to a halo?" is this:

A halo as I know it is a half wave or so loop broken opposite the feedpoint and in a plane parallel to the ground. It has an omnidirectional azimuth pattern but radiates horizontally polarized radiation.

It seems that the annular slot is a slot in a plane parallel to the ground, with an omnidirectional azimuth pattern, and vertically polarized radiation.

So, is an annular slot antenna a halo cut out of a sheet?

73,
Dan
N3OX

1128. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 16:02:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <a481g.72307$dW3.27630@newssvr21.news.prodigy.com>
Source record: 60920

Yuri Blanarovich wrote:
> IT IS STANDING WAVE CURRENT and VOLTAGE along the resonator, get it?
> What's next? Denying that there is a daylight, when the sun is out?

The problem as I see it is that the lumped circuit folk have
no way of knowing when their model has failed them and it is
known to have a failure range. The only way I know of verifying
their model's results is to compare it to the distributed network
model results (or Maxwell's equations) to see if it agrees. That
is something they have proven unwilling to do so they are
really shooting in the dark. In particular, using a signal
containing no phase information to try to measure the phase
shift through a coil and then continuing to report it as a valid
result is really strange. They apparently atill haven't realized
that superposition doesn't preserve all of the information in the
two original waves.
--
73, Cecil http://www.qsl.net/w5dxp

1129. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 16:36:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <931a421onp5m58fsnpe16kll01qv46t5d2@4ax.com>
Source record: 60921

On Tue, 18 Apr 2006 10:24:07 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>OK one more time.

Hi Yuri,

Of all things, "one more time" is boringly trivial. Put it in your sweetheart diary, lock that sucker up, and put it back under your pillow. You have not adequately specified anything, and your comments about efficiency, performance and the rest (if in fact there was anything else) are castles in the air.

>There is really no point of arguing any more here.

And yet this is the entire point of your having posted anything, isn't it?

>I will do the tests and
>with help of "our campers" we will present comprehensive article on the
>subject.

Why would anyone believe in a future of full disclosure when you obviously have such difficulty with simpler topics now?

I offered very simple questions, all about very specific characteristics of ONE antenna. This antenna was YOUR choice to introduce the topic. This antenna was YOUR source of data for all comments that flowed for 10000 postings ever after. You have had more than 2 years to fill in the gaps about ONE antenna. The minimum among these ANTENNA questions was:

1. How high?

2. What drive point Z?

3. What frequency for the combination of all elements?

Now as to the particulars of loading:

1. How long a coil?

2. How many turns in that coil?

3. How long are the radials?

Now as to your efficiency/performance claims:

1. What is the efficiency of a bare radiator without loading?

2. What is the efficiency of the loaded antenna you presented at your page?

3. What is the performance criteria of a bare radiator?

4. What was the performance response of the loaded radiator you presented at your page?

We roll on to test proclamations about linear loading:

1. Let's simply skip this as being obviously tainted by so much missing information as to be irresolvable from more old wives' tales.

Everyone of these questions is easily answered with a simple number.

Everyone of these questions is commonplace discussion for technical examination.

You have answered NONE of these questions. Or was it just one, 92 inches tall? You couldn't even get that one right because the picture ON YOUR PAGE obviously showed a bigger one!

You apparently think you can treat us like fools and that this is enough to prove:

>What's next? Denying that there is a daylight, when the sun is out?

Yuri, you don't have the horsepower to win the race of wits.

73's
Richard Clark, KB7QHC

1130. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 16:56:58 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <BT81g.392$x21.290@fe12.lga>
Source record: 60922

OK,
standby for our tests, measurements and data.
Appears that you distrust anything we have argued, but W8JI and equal
current believers need not to present similar data for your microscope.
I will chronicle my experiments and provide data that you question.
I am already washing up my 72 Buick LeSabre and cleaning antenna contacts,
sharpening my instruments and hopefully have enough accurate numbers and
answers for your questions.
Helloooo! We are arguing current distribution in antenna loading coil. Is it
always equal or can it vary? The rest is nitpicking and obfuscating the
question in question.

now really, really SK!

73 Yuri

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:931a421onp5m58fsnpe16kll01qv46t5d2@4ax.com...
> On Tue, 18 Apr 2006 10:24:07 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>>OK one more time.
>
> Hi Yuri,
>
> Of all things, "one more time" is boringly trivial. Put it in your
> sweetheart diary, lock that sucker up, and put it back under your
> pillow. You have not adequately specified anything, and your comments
> about efficiency, performance and the rest (if in fact there was
> anything else) are castles in the air.
>
>>There is really no point of arguing any more here.
>
> And yet this is the entire point of your having posted anything, isn't
> it?
>
>>I will do the tests and
>>with help of "our campers" we will present comprehensive article on the
>>subject.
>
> Why would anyone believe in a future of full disclosure when you
> obviously have such difficulty with simpler topics now?
>
> I offered very simple questions, all about very specific
> characteristics of ONE antenna. This antenna was YOUR choice to

> introduce the topic. This antenna was YOUR source of data for all
> comments that flowed for 10000 postings ever after. You have had more
> than 2 years to fill in the gaps about ONE antenna. The minimum among
> these ANTENNA questions was:
>
> 1. How high?
>
> 2. What drive point Z?
>
> 3. What frequency for the combination of all elements?
>
> Now as to the particulars of loading:
>
> 1. How long a coil?
>
> 2. How many turns in that coil?
>
> 3. How long are the radials?
>
> Now as to your efficiency/performance claims:
>
> 1. What is the efficiency of a bare radiator without loading?
>
> 2. What is the efficiency of the loaded antenna you presented at your
> page?
>
> 3. What is the performance criteria of a bare radiator?
>
> 4. What was the performance response of the loaded radiator you
> presented at your page?
>
> We roll on to test proclamations about linear loading:
>
> 1. Let's simply skip this as being obviously tainted by so much
> missing information as to be irresolvable from more old wives' tales.
>
> Everyone of these questions is easily answered with a simple number.
>
> Everyone of these questions is commonplace discussion for technical
> examination.
>
> You have answered NONE of these questions. Or was it just one, 92
> inches tall? You couldn't even get that one right because the picture
> ON YOUR PAGE obviously showed a bigger one!
>
> You apparently think you can treat us like fools and that this is
> enough to prove:
>
>>What's next? Denying that there is a daylight, when the sun is out?
>

> Yuri, you don't have the horsepower to win the race of wits.
>
> 73's
> Richard Clark, KB7QHC

1131. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 17:15:25 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <N891g.1744$sh.81@trnddc08>
Source record: 60923

<n3ox.dan@gmail.com> wrote in message
news:1145374731.833215.126530@t31g2000cwb.googlegroups.com...
> I'm not the one designing the antenna. I'd build a collinear. I'm
> just interested in the properties of the annular slot.
>
> What I mean by "I guess the annular slot is the complement to a halo?"
> is this:
>
> A halo as I know it is a half wave or so loop broken opposite the
> feedpoint and in a plane parallel to the ground. It has an
> omnidirectional azimuth pattern but radiates horizontally polarized
> radiation.
>
> It seems that the annular slot is a slot in a plane parallel to the
> ground, with an omnidirectional azimuth pattern, and vertically
> polarized radiation.
>
> So, is an annular slot antenna a halo cut out of a sheet?
>
> 73,
> Dan
> N3OX

Hi Dan

I recognized that I responded improperly only after I'd sent that post about "you" being the original poster. I may learn to read sometime.

But, back to your question about the annular slot. It is a circular slot cut in a plane, conducting surface. The original Annular Slot design concept may have involved itself with *top loading* of a monopole taken to the extreme. The radiator becomes a ring shaped slot.
My problem with relating the Annular Slot with the Halo, is that the two antennas seem to be of different types.
The annular slot does have the radiation pattern similar to 1/2 of that of the halo in free space.

In the 1950's, the anular slot was used on most military aircraft for ~ 1GHz antennas since it does become flush with the conductive skin of the aircraft. I suspect there are better antennas in use today.

Jerry

1132. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 17:33:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lt6a42p69tj32k9b4549ijd7ssn1ab7k8v@4ax.com>
Source record: 60924

On Tue, 18 Apr 2006 12:56:58 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:
>Appears that you distrust anything we have argued,

Yuri,

Arguing is only hot air suitable for inflating the sagged esteem of guru-bashers. If you cannot present the simple characteristics of YOUR choice of antenna, then you don't have enough wind to toot a penny whistle.

>but W8JI and equal
>current believers need not to present similar data for your microscope.

Yuri, I don't need you spoon feeding me bullshit and telling me its steak. Frankly, I can get the full specifications and details of an antenna from anyone faster than you. Except Cecil perhaps, he would have us believe it's BBQ steaks cooked by standing waves. In the past 4 or 5 calls for this simple data, you have offered nothing but excuses and put-offs like:

>I will chronicle my experiments and provide data that you question.

"We will see," in response would seem to be an answer only Rumsfeld could love.

>Helloooo! We are arguing.... blah blah blah

It is a pathetic corpse you are trying to prove that it still laughs and cries; and whispers the solution to Fermat's last problem to the nurse at night.

73's
Richard Clark, KB7QHC

1133. paint on antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 17:40:10 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <124a93qm7ohui1a@corp.supernews.com>
Source record: 60925

We painted the heck out of them when I was in the Navy, 'course that was
47 years ago, but I bet they still do.

Butch KF5DE

1134. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 18:24:47 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <P9a1g.69745$Jd.69399@newssvr25.news.prodigy.net>
Source record: 60776

Yuri Blanarovich wrote:
> standby for our tests, measurements and data.

Yuri, I don't know what you are going to prove. W8JI's
and W7EL's own measurements prove beyond any doubt that
the current at each end of the coil is NOT equal. And
the error they made in trying to measure phase using
a signal with unchanging phase is more than obvious.

What you are going to find is that the coil warps the
current profile away from a pure cosine wave as is
shown in Figure 3 at:

http://www.k6mhe.com/n7ws/Loaded%20antennas.htm

The delay through that coil is obviously NOT zero and
the currents at the ends are obviously NOT equal.
--
73, Cecil http://www.qsl.net/w5dxp

1135. Coax Question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 19:45:55 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <mOOdnZnsBJFy3NjZnZ2dnUVZ_sCdnZ2d@comcast.com>
Source record: 60777

Hello:

Have started running cvoax from a receve-only antenna to the house.
The coax has a Polyethylene (PE) Outer jacket.
With this PE jacket, it's upposed to be buriable.

It's becoming a real job for me at my age to dig a slit trench, even a
shallow one.
But, I can easily just lay the coax on the surface, without any reql danger
of anyone
stepping on it, etc. It's in a pretty out of the way area.

I realize that burying it is undoubtedly best, but in a practical
sense, how well does a PE outer jacket stand up if just laying on the ground
?
Would be subjected, of course, to rain, and also buried in snow during the
winter.

Again, it's receive only.

Thanks,
Bob

1136. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 20:28:47 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <3_b1g.19794$az4.7266@bgtnsc04-news.ops.worldnet.att.net>
Source record: 60778

Cecil,

Why don't you go back and re-read that paper carefully. Pay particular attention to the part where the author says, with emphasis, that the magic formula only works when the coil is near or at resonance.

Your extension to arbitrarily lower frequencies is pure nonsense.

I guess you did not read my complete message. I pointed out the exact location in the paper where this limitation is explained.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I gave you a very specific reference to demonstrate your supposition
>> was incorrect. You came back with nothing but, "Because I say so." You
>> have not offered one shred of backing for your constant Vf argument.
>
>
> Where the heck have you been? The equation for VF is equation (32)
>
> at: http://www.ttr.com/TELSIKS2001-MASTER-1.pdf
>
> Just before that equation for VF is a geometry test for the
> coil in question. A 75m bugcatcher coil passes that test.
>
> The velocity factor equation contains helix diameter, turns
> per unit length, and wavelength. If we keep those three
> quantities constant, the VF of a coil should remain constant
> while varying the length of the coil.
>
> The problem encountered previously was we kept the coil length
> constant while varying the frequency. That does change the VF.
> But this time we are keeping frequency constant.

1137. Re: Thomas & Betts UV Resistant Tie Wraps: Any Experiences With For Out Of Door Usage ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 21:19:37 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145395177.435934.130050@e56g2000cwe.googlegroups.com>
Source record: 60779

I often use the solid-wire trick. I'd note that if you use multiple turns--two or three or four-- it will hold much tighter than a single turn, allowing use of easier-to-handle smaller gauges to hold the same load. It's also a lot easier than a tie-wrap to UNdo when the time comes--no tools required. Easily available in black and white (in the US at least), and other colors if you want. Scales to different sizes well, too. Not that I don't use tie-wraps too, but sometimes they aren't quite the right choice. Oh, and I've recently gotten some easy-release reuseable tie-wraps -- black, and reasonably easy to use, though a larger "knob" of plastic at the latch point. Dunno how many times they can be released/re-used yet.

Cheers,
Tom

1138. Re: Coax Question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 21:20:31 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <4445582D.1064B76A@shaw.ca>
Source record: 60780

Robert11 wrote:
>
> Hello:
>
> Have started running cvoax from a receve-only antenna to the house.
> The coax has a Polyethylene (PE) Outer jacket.
> With this PE jacket, it's upposed to be buriable.
>
> It's becoming a real job for me at my age to dig a slit trench, even a
> shallow one.
> But, I can easily just lay the coax on the surface, without any reql danger
> of anyone
> stepping on it, etc. It's in a pretty out of the way area.
>
> I realize that burying it is undoubtedly best, but in a practical
> sense, how well does a PE outer jacket stand up if just laying on the ground
> ?
> Would be subjected, of course, to rain, and also buried in snow during the
> winter.
>
> Again, it's receive only.
>
> Thanks,
> Bob

I've had coax running though my yard for the past five or six years. It was
just laid across the grass. Gradually it worked it's way out of sight and
show's no sign of deterioration (electrically). We use the yard a lot, I
mow over it, water it, herbicide it, and everything. It survives the harsh
Alberta winters, wet springs, and all. It was just some RG-213 that I picked
up at a flea market!!!!

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,

Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

1139. Re: Coax Question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 21:42:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124an9msrp204c3@corp.supernews.com>
Source record: 60781

The most harmful thing to most plastics outdoors is sunlight. I've had some PE jacketed coax outside for many years without noticeable degradation. However, it gets buried in the grass after a couple of years so doesn't get a whole lot of direct sun. Clear PE will deteriorate fairly quickly, but black coloring prevents penetration of the UV light, so I'd expect black PE jacketed cable to last a very long time. Rain, snow, and temperature extremes aren't a problem.

Roy Lewallen, W7EL

Robert11 wrote:
> Hello:
>
> Have started running cvoax from a receve-only antenna to the house.
> The coax has a Polyethylene (PE) Outer jacket.
> With this PE jacket, it's upposed to be buriable.
>
> It's becoming a real job for me at my age to dig a slit trench, even a
> shallow one.
> But, I can easily just lay the coax on the surface, without any reql danger
> of anyone
> stepping on it, etc. It's in a pretty out of the way area.
>
> I realize that burying it is undoubtedly best, but in a practical
> sense, how well does a PE outer jacket stand up if just laying on the ground
> ?
> Would be subjected, of course, to rain, and also buried in snow during the
> winter.
>
> Again, it's receive only.
>
> Thanks,
> Bob
>
>

1140. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 23:14:09 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <5pe1g.3040$Lm5.140@newssvr12.news.prodigy.com>
Source record: 60782

Cecil Moore wrote:
> Yuri Blanarovich wrote:
>
>> standby for our tests, measurements and data.
>
>
> Yuri, I don't know what you are going to prove. W8JI's
> and W7EL's own measurements prove beyond any doubt that
> the current at each end of the coil is NOT equal. And
> the error they made in trying to measure phase using
> a signal with unchanging phase is more than obvious.
>
> What you are going to find is that the coil warps the
> current profile away from a pure cosine wave as is
> shown in Figure 3 at:
>
> http://www.k6mhe.com/n7ws/Loaded%20antennas.htm
>
> The delay through that coil is obviously NOT zero and
> the currents at the ends are obviously NOT equal.

How do you know it's a "pure cosine wave," Cecil?
73,
Tom Donaly, KA6RUH

1141. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-18 23:59:47 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44457d74$0$76686$39cecf19@news.twtelecom.net>
Source record: 60783

Richard Clark wrote:

>
> You have answered NONE of these questions. Or was it just one, 92
> inches tall? You couldn't even get that one right because the picture
> ON YOUR PAGE obviously showed a bigger one!
>
> You apparently think you can treat us like fools and that this is
> enough to prove:
>
>
>>What's next? Denying that there is a daylight, when the sun is out?
>
>
> Yuri, you don't have the horsepower to win the race of wits.
>
> 73's
> Richard Clark, KB7QHC

If he will just post the plans to duplicate the antenna, it would give the rest of us something to test. That would be way too easy, I guess.

tom
K0TAR

1142. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 00:14:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <jhf1g.48429$_S7.10997@newssvr14.news.prodigy.com>
Source record: 60784

Gene Fuller wrote:
> Why don't you go back and re-read that paper carefully. Pay particular
> attention to the part where the author says, with emphasis, that the
> magic formula only works when the coil is near or at resonance.

A 75m bugcatcher coil is self resonant at 6.6 MHz. That's
near 4 MHz. Where is all your irrationality coming from?
--
73, Cecil http://www.qsl.net/w5dxp

1143. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 00:16:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <cjf1g.48431$_S7.34597@newssvr14.news.prodigy.com>
Source record: 60785

Tom Donaly wrote:

> Cecil Moore wrote:
>> What you are going to find is that the coil warps the
>> current profile away from a pure cosine wave ...
>
> How do you know it's a "pure cosine wave," Cecil?

Because Kraus says so?
--
73, Cecil http://www.qsl.net/w5dxp

1144. Re: Coax Question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 00:18:07 UTC
From: ml <m@di.net>
Message-ID: <m-C6BD24.20180218042006@news.verizon.net>
Source record: 60786

the other way to burry it, rather than dig a slit, perhaps you can get
a bit of topsoil and just burry it slightly and pack it down after it
will 'seem ' to blend in a bit faster i dunno just a idea obv you
don't want too much extra dirt to create hazard or eyesore but just a
little to soften the edges so to speak

In article <4445582D.1064B76A@shaw.ca>, Irv Finkleman <finkirv@shaw.ca>
wrote:

> Robert11 wrote:
> >
> > Hello:
> >
> > Have started running cvoax from a receve-only antenna to the house.
> > The coax has a Polyethylene (PE) Outer jacket.
> > With this PE jacket, it's upposed to be buriable.
> >
> > It's becoming a real job for me at my age to dig a slit trench, even a
> > shallow one.
> > But, I can easily just lay the coax on the surface, without any reql danger
> > of anyone
> > stepping on it, etc. It's in a pretty out of the way area.
> >
> > I realize that burying it is undoubtedly best, but in a practical
> > sense, how well does a PE outer jacket stand up if just laying on the ground
> > ?
> > Would be subjected, of course, to rain, and also buried in snow during the
> > winter.
> >
> > Again, it's receive only.
> >
> > Thanks,
> > Bob
>
> I've had coax running though my yard for the past five or six years. It was
> just laid across the grass. Gradually it worked it's way out of sight and
> show's no sign of deterioration (electrically). We use the yard a lot, I
> mow over it, water it, herbicide it, and everything. It survives the harsh
> Alberta winters, wet springs, and all. It was just some RG-213 that I picked
> up at a flea market!!!!
>
> Irv VE6BP

1145. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 00:23:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bcva42pjidc6bq61uu5k4g49octt2ubo8s@4ax.com>
Source record: 60788

On Tue, 18 Apr 2006 18:59:47 -0500, Tom Ring <news0002@taring.org>
wrote:

>Richard Clark wrote:
>
>>
>> You have answered NONE of these questions. Or was it just one, 92
>> inches tall? You couldn't even get that one right because the picture
>> ON YOUR PAGE obviously showed a bigger one!
>>
>> You apparently think you can treat us like fools and that this is
>> enough to prove:
>>
>>
>>>What's next? Denying that there is a daylight, when the sun is out?
>>
>>
>> Yuri, you don't have the horsepower to win the race of wits.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>If he will just post the plans to duplicate the antenna, it would give
>the rest of us something to test. That would be way too easy, I guess.

Hi Tom,

If the mood strikes me, I will see how much effort it takes to blow
away his "efficient" antenna. Seeing how he has no answers for its
construction, I can easily impose my own choices like an high E piano
string radiator mid loaded with a squirrel cage over a radial field of
rusting springs from a burnt-out mattress. There should be room for
improvement over that using a coat hanger with distributed loads of
barn nails over the roof of a 1948 Hudson.

Hi Dave,

You never answered:
"What's your point?"
but are you having fun with loading yet?

73's
Richard Clark, KB7QHC

1146. ferrious vs non ferric

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 00:24:27 UTC
From: ml <m@di.net>
Message-ID: <m-B659E3.20242718042006@news.verizon.net>
Source record: 60787

was hoping to get a rough idea of how much a non ferric metal would
effect a existing antenna if brought extreemly close

I can kinda estimate what a typical ferrious /metal object might do,
but say if an exact shaped no ferrious object was brought equally near

what would be the effect compartively speaking

1147. Re: ferrious vs non ferric

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 00:34:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n91b42t319jo0i5fblo07obqejvciu0fsb@4ax.com>
Source record: 60789

On Wed, 19 Apr 2006 00:24:27 GMT, ml <m@di.net> wrote:

>what would be the effect compartively speaking

Hi Myles,

Brass and Iron have the opposite effects for coupling coils. Extending
this abstraction guarantees nothing as you may need a considerable
amount of either to replicate that in an antenna's field.

73's
Richard Clark, KB7QHC

1148. Re: paint antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 00:46:29 UTC
From: Dan Andersson <dan@andersson.co.uk>
Message-ID: <wG6dnaHRv-D8FdjZSa8jmw@karoo.co.uk>
Source record: 60790

ml wrote:

> just read a article someplace about a new conductive paint that is going
> to be used by different sources (pvt/mil) to in effect paint an antenna
> on a surface. once such use was an 'orbiting' blimp , planes etc to
> repete signals
>
>
> ok so i wonder my roof has a flat brick wall it's 40ft tall 40ft wide
>
> if i painted a antenna design think i'd get any useful performance in at
> least one direction?
>
> unf it didn't state any spec's but it's commercial
>
>
> just really thinking out louad how a antenna w/little profile but
> otherwise large surfacce area might work

The metal powder paints are not working well as antennas, copper or aluminium makes no difference. To be able to paint an antenna on an isolating material, I use the silver oxide based paints. Some of these paints can even be soldered on. You can connect the coax by capacitive or direct connection, just make up a small pcb with the gilded side towards the painted surface and it'll work fine. Just glue it to the surface.

You often find this type of paint for repairs of windscreen heater coils.

The normal variants are transparent and a slightly greenish-silverish colour.

You can paint an antenna on a car window if you have a standard glass and none of the new gilded glass with a surface heater or defroster.

However, as the paint is not resistant to wear, like cleaning a window, you have to cover the painted areas with a self adhesive film.

The painted antenna was tested for use in buses and subsequently for VHF and UHF only.
Output power in tens of watts are ok but I did not test with higher powers.

You can also make a precut fractal template and just apply the paint with a roller or a cloth....

Cheers

Dan / M0DFI

1149. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 00:54:37 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <hTf1g.3074$Lm5.1934@newssvr12.news.prodigy.com>
Source record: 60791

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Why don't you go back and re-read that paper carefully. Pay particular
>> attention to the part where the author says, with emphasis, that the
>> magic formula only works when the coil is near or at resonance.
>
>
> A 75m bugcatcher coil is self resonant at 6.6 MHz. That's
> near 4 MHz. Where is all your irrationality coming from?

4 Mhz is not 6.6 Mhz. You're stretching the truth again, Cecil.
Gene is right. Why not just give up. You're not going
to make anything true just by repeating it over and over again.
73,
Tom Donaly, KA6RUH

1150. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 00:58:20 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <MWf1g.3078$Lm5.1534@newssvr12.news.prodigy.com>
Source record: 60792

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> Cecil Moore wrote:
>>
>>> What you are going to find is that the coil warps the
>>> current profile away from a pure cosine wave ...
>>
>>
>> How do you know it's a "pure cosine wave," Cecil?
>
>
> Because Kraus says so?

That's interesting. It means we don't need to use
NEC any more.
73,
Tom Donaly, KA6RUH

1151. antennas and rain

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 01:37:35 UTC
From: jawod <jawod@fuse.net>
Message-ID: <828f4$4445947d$453d9423$16800@FUSE.NET>
Source record: 60793

I think I read in this newsgroup that a ham in the PNW waxed his dipole to keep the rain off. I couldn't tell whether it was just a joke?

In an area notorious for lots of rain, do hams in the Northwest really wax their antennas?

Even when waxed, what is the effect of rain/water on dipole chararacteristics?

John
AB8WH

1152. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 01:57:58 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <GOg1g.43242$1q4.10769@bgtnsc05-news.ops.worldnet.att.net>
Source record: 60794

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Why don't you go back and re-read that paper carefully. Pay particular
>> attention to the part where the author says, with emphasis, that the
>> magic formula only works when the coil is near or at resonance.
>
>
> A 75m bugcatcher coil is self resonant at 6.6 MHz. That's
> near 4 MHz. Where is all your irrationality coming from?

Cecil,

I guess you can't keep up with your fairy tales.

The exact quote from your message on April 11, at 9:57 am is copied
below. I don't see anything about a bugcatcher coil. Instead there is
some un-described coil stock that requires 37 extra turns in addition to
the starting 32 turns to achieve self-resonance at 4 MHz.

Since the Corum paper highlighted the limitation for applicability of
the magic formula it is possible he thought that the limitation might be
important. However, with your superior intellect it is fully justifiable
to go ahead and accept only those portions of his paper that support
your preconceived notions.

I suppose whatever number you determine will still fall within your 59%
standard of precision.

73,
Gene
W4SZ

[quote]

****
Here's a more valid procedure for determining the
delay through a coil. Changing nothing except the
number of turns, add turns until the coil is self-
resonant at the frequency of use. Frequency doesn't
change. Coil diameter doesn't change. Turns per inch
doesn't change. The *ONLY* thing that changes is the
length of the coil. At self-resonance, we *know* the
longer coil is 90 degrees long.
****

Take that same 32 turn coil and keeping everything the
same, add turns to the coil until it is self-resonant.
We haven't changed the frequency, the diameter, or the
turns per inch. All we have done is add 37 turns to the
original 32 turn coil to make the self-resonant frequency
equal to 4 MHz with 69 turns. SINCE WE HAVEN'T CHANGED
THE FREQUENCY, WE KNOW THAT THE VELOCITY FACTOR OF THE
COIL HAS NOT CHANGED.

In the velocity factor equation, the only variables are
coil diameter, turns per inch, and wavelength. NONE OF
THOSE VARIABLES ARE CHANGED ABOVE.

So we know that 69 turns makes that coil stock self-resonant
at 4 MHz. That would make the phase shift through 32 turns
equal to 42 degrees, making our above 10 degree assumption
false. 42 degrees is probably fairly close to the actual value.
The velocity factor for that coil stock calculates out to
be 0.023 on 4 MHz.

[end quote]

1153. Re: antennas and rain

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 02:34:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fb8b42h0fes2d7l7mh11v7d0dthqjke4qv@4ax.com>
Source record: 60795

On Tue, 18 Apr 2006 21:37:35 -0400, jawod <jawod@fuse.net> wrote:

>In an area notorious for lots of rain, do hams in the Northwest really
>wax their antennas?

No, it inhibits moss.

73's
Richard Clark, KB7QHC, Seattle (rain city)

1154. Re: antennas and rain

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 03:19:02 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <124bb1keret5s0e@corp.supernews.com>
Source record: 60796

Richard Clark wrote:
> On Tue, 18 Apr 2006 21:37:35 -0400, jawod <jawod@fuse.net> wrote:
>
>
>>In an area notorious for lots of rain, do hams in the Northwest really
>>wax their antennas?
>
>
> No, it inhibits moss.
>
> 73's
> Richard Clark, KB7QHC, Seattle (rain city)
Only on the south side....

Dave WD9BDZ

1155. Re: antennas and rain

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 03:44:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124bchbqripdgae@corp.supernews.com>
Source record: 60797

Richard Clark wrote:
> On Tue, 18 Apr 2006 21:37:35 -0400, jawod <jawod@fuse.net> wrote:
>
>> In an area notorious for lots of rain, do hams in the Northwest really
>> wax their antennas?
>
> No, it inhibits moss.

Only QRPers need it for that -- the big guns just burn the moss off.

Roy Lewallen, W7EL

1156. Re: Mag Mount on aluminum ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 04:10:05 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <zKi1g.735$QP4.341@fed1read12>
Source record: 60798

"Buck" <not@this.time> wrote in message
news:c8v542lg9n1alb2sf876f8oba2vb50tk7n@4ax.com...
> On Fri, 14 Apr 2006 20:39:46 -0700, "Sal M. Onella"
> <salmonella@food.poisoning.org> wrote:

> >I was able to make a magmount work OK with only a steel TV tray.

< snip >

> Try a pizza pan

'At'sa some good idea you got!

1157. Re: paint on antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 04:29:22 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <E0j1g.738$QP4.422@fed1read12>
Source record: 60799

"KenW" <kenw@no_way.net.invalid> wrote in message
news:32ga42p9fe1qc6b938ojr3sh3c7nv98jg8@4ax.com...
> On Tue, 18 Apr 2006 12:40:10 -0500, Butch Magee <lynyrd@cableone.net>
> wrote:
>
> >We painted the heck out of them when I was in the Navy, 'course that was
> >47 years ago, but I bet they still do.
> >
> >Butch KF5DE
> Did that ages ago. Didn't know that old paint had real aluminum in it
> Antenna didn't work very well !!!!!!!!!!!!!
>
>
> ken...w2bdp

We paint them now, too. The HF whips are all tapered fiberglass shafts (some two-piece) with a single conductor in the center for the radiating element. The resin would be eaten up by the sunlight without painting, but it's special paint that is transparent to RF. There's a need for quite a lot of it, considering all the radomes on the ships for satcom and radar. (The really big ones are just "out there" in the elements but many antennas are in domes.)

Radar Absorbent Material (RAM) is used a lot, and it has to be preserved with antenna paint, too; Regular paint on RAM would reflect just like whatever surface the RAM is applied to, defeating the purpose.

1158. Re: antennas and rain

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 06:48:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0tlb42pk4cirdabt2s0pnontcfu3lhj4gt@4ax.com>
Source record: 60800

On Tue, 18 Apr 2006 22:19:02 -0500, "David G. Nagel" <nagel@core.com>
wrote:

>Richard Clark wrote:
>> On Tue, 18 Apr 2006 21:37:35 -0400, jawod <jawod@fuse.net> wrote:
>>
>>
>>>In an area notorious for lots of rain, do hams in the Northwest really
>>>wax their antennas?
>>
>>
>> No, it inhibits moss.
>>
>> 73's
>> Richard Clark, KB7QHC, Seattle (rain city)
>Only on the south side....

Hi Dave,

I suspect you haven't really seen moss then. In the Hoh and Soleduc
valleys near here, they get 200 inches of rain each year. You can't
see the trees because of the moss. North, South, East, or West sides.
You can't see the ground because of moss, you can't see river bottoms
because of moss. There is only one color - moss. Mt. Baker (yet
another volcano) nearby sets records for snowfall. Seven years ago it
stood at 95 feet of snow. Mt. Rainier (yet another volcano) averages
60 feet of snow each year. When you fly into Seattle, you can see at
least 4 or 5 volcanoes (there are more).

Seattle isn't "that" rainy though, we only had 27 straight days of
rain a while ago, got one day of sunshine and then went right back to
rain. This last month I put in rain barrels and found I had to empty
200 gallons of water every other week and that was only for soft
showers, what we call "spitting." Only tourists use windshield wipers
in this.

So, there's two problems with waxing antennas (sounds like what girls
would do). You'd spend too much time in the rain to no purpose
because the rain would wash it off anyway.

73's
Richard Clark, KB7QHC
caveat: we only boast this to frighten Californians away - no one who
lives here is really impressed by the rain.

1159. Re: ferrious vs non ferric

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 09:47:55 UTC
From: ml <m@di.net>
Message-ID: <m-EE5F87.05475019042006@news.verizon.net>
Source record: 60801

In article <n91b42t319jo0i5fblo07obqejvciu0fsb@4ax.com>,
Richard Clark <kb7qhc@comcast.net> wrote:

> On Wed, 19 Apr 2006 00:24:27 GMT, ml <m@di.net> wrote:
>
> >what would be the effect compartively speaking
>
> Hi Myles,
>
> Brass and Iron have the opposite effects for coupling coils. Extending
> this abstraction guarantees nothing as you may need a considerable
> amount of either to replicate that in an antenna's field.
>
> 73's
> Richard Clark, KB7QHC

tnx v much

1160. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 12:22:52 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44462b9c$0$1012$39cecf19@news.twtelecom.net>
Source record: 60802

Richard Clark wrote:

> Hi Tom,
>
> If the mood strikes me, I will see how much effort it takes to blow
> away his "efficient" antenna. Seeing how he has no answers for its
> construction, I can easily impose my own choices like an high E piano
> string radiator mid loaded with a squirrel cage over a radial field of
> rusting springs from a burnt-out mattress. There should be room for
> improvement over that using a coat hanger with distributed loads of
> barn nails over the roof of a 1948 Hudson.
>
> 73's
> Richard Clark, KB7QHC

I would prefer a radiator made from half inch PVC filled with a dilute
sodium chloride solution. If you put a valve at the bottom, it's a snap
to adjust resonance.

tom
K0TAR

1161. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 12:50:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <omq1g.48536$_S7.294@newssvr14.news.prodigy.com>
Source record: 60803

Tom Donaly wrote:
> 4 Mhz is not 6.6 Mhz.

Nobody said 4 MHz is 6.6 MHz. 4 MHz is 60% of 6.6 MHz and is therefore near 6.6 MHz. Dr. Corum says the lumped constant model fails at 0.04 wavelength. In his other paper, he says if the length of the wire used to wind the coil is 0.06 wavelength, it's time to switch over to the distributed network model. A 75m bugcatcher coil uses more than 0.06 wavelength of wire.

Please explain the physics behind the velocity factor of a coil changing radically just because you cut it in half - assuming all other parameters are kept at the same value.

Your model is known to fail at a point but you guys have no clue where that failure point is. You just have faith that you will never reach the failure point. But what if you have already reached it?
--
73, Cecil http://www.qsl.net/w5dxp

1162. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 12:56:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Nrq1g.48538$_S7.12744@newssvr14.news.prodigy.com>
Source record: 60804

Tom Donaly wrote:

> Cecil Moore wrote:
>
>> Tom Donaly wrote:
>>> How do you know it's a "pure cosine wave," Cecil?
>>
>> Because Kraus says so?
>
> That's interesting. It means we don't need to use
> NEC any more.

As I said previously, it's only a pure cosine wave for a thin-wire dipole. NEC handles more than thin-wire dipoles.

The coil adds a bulge to the thin-wire cosine wave but the overall envelope is clearly visible.
--
73, Cecil http://www.qsl.net/w5dxp

1163. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 13:04:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Jzq1g.48539$_S7.27538@newssvr14.news.prodigy.com>
Source record: 60805

Gene Fuller wrote:

> Cecil Moore wrote:
> > A 75m bugcatcher coil is self resonant at 6.6 MHz. That's
> > near 4 MHz. Where is all your irrationality coming from?
>
> The exact quote from your message on April 11, at 9:57 am is copied
> below. I don't see anything about a bugcatcher coil.

The coil being discussed is a bugcatcher coil modeled in EZNEC.

> Since the Corum paper highlighted the limitation for applicability of
> the magic formula it is possible he thought that the limitation might be
> important.

The limitation that Dr. Corum highlighted was the failure of the
lumped circuit model when the coil is self-resonant. He says that
when we are within 17% of self-resonance, the lumped circuit model
fails. Have you anything besides faith to prove that your model
is valid within 60% of self-resonance?

Please describe the physics behind a radical change in velocity
factor (at the same frequency) when a coil is cut in half.
--
73, Cecil http://www.qsl.net/w5dxp

1164. New User_Test

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 13:13:52 UTC
From: N3 <N3isme@gmail.com>
Message-ID: <1145452432.246349.57750@g10g2000cwb.googlegroups.com>
Source record: 60806

Test

1165. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 13:27:40 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <gVq1g.46089$1q4.22462@bgtnsc05-news.ops.worldnet.att.net>
Source record: 60807

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Cecil Moore wrote:
>> > A 75m bugcatcher coil is self resonant at 6.6 MHz. That's
>> > near 4 MHz. Where is all your irrationality coming from?
>>
>> The exact quote from your message on April 11, at 9:57 am is copied
>> below. I don't see anything about a bugcatcher coil.
>
>
> The coil being discussed is a bugcatcher coil modeled in EZNEC.
>
>> Since the Corum paper highlighted the limitation for applicability of
>> the magic formula it is possible he thought that the limitation might
>> be important.
>
>
> The limitation that Dr. Corum highlighted was the failure of the
> lumped circuit model when the coil is self-resonant. He says that
> when we are within 17% of self-resonance, the lumped circuit model
> fails. Have you anything besides faith to prove that your model
> is valid within 60% of self-resonance?
>
> Please describe the physics behind a radical change in velocity
> factor (at the same frequency) when a coil is cut in half.

Cecil,

You have really lost it. I gave you the exact quote, and you then proceed to talk about something else.

It appears you did not really read and understand the Corum paper either. The portion I referred to you had nothing to say about lumped circuits or distributed circuits. It was merely a step in the mathematical analysis that leads to the magic formula for Vf. If you ignore the important limitations on the math analysis it is likely that any conclusions drawn will be incorrect.

So let's throw the topic back to you. A straight wire has a Vf near 1. A resonant coil has a Vf of 0.01 or 0.02. So where and how does the Vf transition occur? For a coil of one turn? For a coil with a length of 15% of the resonant length? At some other coil length? Is the Vf transition abrupt or smooth?

You seem to understand everything about coil Vf, so these should be easy questions for you.

73,
Gene
W4SZ

1166. Re: M2 6 Meter Yegis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 13:42:49 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <ErWdnR8w2L_No9vZRVn-uQ@comcast.com>
Source record: 60808

<Allisonnospam@nouce.bellatlantic.net> wrote in message
news:3mec42ldh6hqdp2nk0n1vh9b4t3i8qf2j1@4ax.com...
> On Tue, 18 Apr 2006 11:28:45 -0400, "Phil" <k6eid@bellsouth.net>
> wrote:
>
>>I am thinking for replacing my old Creative Design CL-6A 5 element 6 meter
>>yagis with one of the M Squared antennas, either a 6M7, 6M7JHV, or a
>>6M2WLC.
>>Does anyone know where there's any comparatiuve data on them or where
>>there
>>are product reviews on the 6M7 or 6M2WLC (the JHV was in QST a few years
>>back)?
>>
>>Thanks
>>
>>Phil Finkle K6EID
>
> There ok if you want a thin element narrowband yagi. They do show SWR
> rise with ice and snow.
>
> Myself I'd want fatter elements for wider bandwidth and a bit more
> robust.
>
> Allison
>
At least where I live, FM20, I don't see thin elements as a big deal. I have
had a KLM 50 - 7 LD up for over 20 years with no signs ef element damage. As
for bandwidth, 50.0 to 50.25 is really all you need for CW and SSB.

Tam/WB2TT

1167. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 14:04:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bfKdnSv7L6l63tvZnZ2dnUVZ8qGdnZ2d@bt.com>
Source record: 60809

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Jzq1g.48539$_S7.27538@newssvr14.news.prodigy.com...
> Gene Fuller wrote:
>
> > Cecil Moore wrote:
> > > A 75m bugcatcher coil is self resonant at 6.6 MHz. That's
> > > near 4 MHz. Where is all your irrationality coming from?
> >
> > The exact quote from your message on April 11, at 9:57 am is
copied
> > below. I don't see anything about a bugcatcher coil.
>
> The coil being discussed is a bugcatcher coil modeled in EZNEC.
>
> > Since the Corum paper highlighted the limitation for applicability
of
> > the magic formula it is possible he thought that the limitation
might be
> > important.
>
> The limitation that Dr. Corum highlighted was the failure of the
> lumped circuit model when the coil is self-resonant. He says that
> when we are within 17% of self-resonance, the lumped circuit model
> fails. Have you anything besides faith to prove that your model
> is valid within 60% of self-resonance?
>
> Please describe the physics behind a radical change in velocity
> factor (at the same frequency) when a coil is cut in half.
> --
==========
Dear Cec,

What is the failure mode?
Is it a sudden catastropic failure?
Or does it fail very slowly, gradually and gently?

What is Dr.Corum a doctor of?

From your quotes he sounds like a Quack. Or is he a Witch?

What does he have to say about Fractals, E-H and the other wierd
contraptions?

How many other worshipping followers does he have besides yourself?

Or are you just pulling our varicose-veined legs?

All rhetorical questions of course. Answers not required.

Your old, well-intentioned pal, Reg.

1168. Re: New User_Test

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 14:19:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <EtKdnc7ZNaXx2tvZRVnyvg@bt.com>
Source record: 60810

Are you testing to destruction one of Cecil's loading coils. We know
they are prone to failure. Please let us know the results.
Catastropic, with a bang, or gently gradual over a period of time?

1169. Re: antennas and rain

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 14:41:41 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <z_r1g.98578$bm6.41@fed1read04>
Source record: 60811

Some one wrote:
> caveat: we only boast this to frighten Californians away - no one who
> lives here is really impressed by the rain.

Californians have a new scheme. We get Nevada license plates before moving
to Wash out ton
Query: where you from stranger?
Answer: Nevada Podner (;-)

--
CL -- I doubt, therefore I might be !

1170. Re: antennas and rain

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 14:46:43 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <g3s1g.98701$bm6.37613@fed1read04>
Source record: 60812

For trapped horizontal antennas, be sure to orient the drain holes downward
Neglected to do this on my first tribander installation
Traps wud fill with water, VSWR outta sight
Had to wait for a week for them to dry out (;-)

--
CL -- I doubt, therefore I might be !

1171. SST Electronics T-4 Ultra Tuner op manual

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 14:50:50 UTC
From: yosihanegbi <negevcom@verizon.net>
Message-ID: <1145458250.016670.314660@u72g2000cwu.googlegroups.com>
Source record: 60813

Inherited a T-4 Ultra Tuner. Can anyone help me obtain an operating
manual, either original or a scan or photocopy? tnx

1172. Re: M2 6 Meter Yegis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 15:03:22 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <q_ednRBGTaQCzNvZRVnyrg@bt.com>
Source record: 60814

<Allisonnospam@nouce.bellatlantic.net> wrote in message
news:3mec42ldh6hqdp2nk0n1vh9b4t3i8qf2j1@4ax.com...
> On Tue, 18 Apr 2006 11:28:45 -0400, "Phil" <k6eid@bellsouth.net>
> wrote:
>
> >I am thinking for replacing my old Creative Design CL-6A 5 element
6 meter
> >yagis with one of the M Squared antennas, either a 6M7, 6M7JHV, or
a 6M2WLC.
> >Does anyone know where there's any comparatiuve data on them or
where there
> >are product reviews on the 6M7 or 6M2WLC (the JHV was in QST a few
years
> >back)?
> >
> >Thanks
> >
> >Phil Finkle K6EID
>
> There ok if you want a thin element narrowband yagi. They do show
SWR
> rise with ice and snow.
>
> Myself I'd want fatter elements for wider bandwidth and a bit more
> robust.
>
> Allison
==========

With ice and snow the SWR, if it's not perfect, and it never is, is
just as likely to improve as it is to get worse.

It's radiating efficiciency what matters. And the SWR is no
indication of this. A change in SWR is just another symptom of the
presence of ice or snow.

To see how much efficiency has deteriorated you would do better just
by looking out of the shack window at the weather conditions. From
appearances it is seldom as bad as you think!

After all, all the SWR meter tells you is whether or not the load on
the transmitter is matched to 50 ohms. Just readjust the tuner if you
have one.

Reg.

1173. Re: antennas and rain

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 15:09:18 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <yos1g.69966$Jd.68786@newssvr25.news.prodigy.net>
Source record: 60815

> 73's
> Richard Clark, KB7QHC
> caveat: we only boast this to frighten Californians away - no one who
> lives here is really impressed by the rain.

It works. We Californians are allergic to long periods of unremitting
rain. It washes off the thin veneer of civilization.
73,
Tom Donaly, KA6RUH

1174. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 15:15:40 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <wus1g.69968$Jd.19381@newssvr25.news.prodigy.net>
Source record: 60816

Reg Edwards wrote:

> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:Jzq1g.48539$_S7.27538@newssvr14.news.prodigy.com...
>
>>Gene Fuller wrote:
>>
>>
>>>Cecil Moore wrote:
>>> > A 75m bugcatcher coil is self resonant at 6.6 MHz. That's
>>> > near 4 MHz. Where is all your irrationality coming from?
>>>
>>>The exact quote from your message on April 11, at 9:57 am is
>
> copied
>
>>>below. I don't see anything about a bugcatcher coil.
>>
>>The coil being discussed is a bugcatcher coil modeled in EZNEC.
>>
>>
>>>Since the Corum paper highlighted the limitation for applicability
>
> of
>
>>>the magic formula it is possible he thought that the limitation
>
> might be
>
>>>important.
>>
>>The limitation that Dr. Corum highlighted was the failure of the
>>lumped circuit model when the coil is self-resonant. He says that
>>when we are within 17% of self-resonance, the lumped circuit model
>>fails. Have you anything besides faith to prove that your model
>>is valid within 60% of self-resonance?
>>
>>Please describe the physics behind a radical change in velocity
>>factor (at the same frequency) when a coil is cut in half.
>>--
>
> ==
> Dear Cec,
>

> What is the failure mode?
> Is it a sudden catastropic failure?
> Or does it fail very slowly, gradually and gently?
>
> What is Dr.Corum a doctor of?
>
> From your quotes he sounds like a Quack. Or is he a Witch?
>
> What does he have to say about Fractals, E-H and the other wierd
> contraptions?
>
> How many other worshipping followers does he have besides yourself?
>
> Or are you just pulling our varicose-veined legs?
>
> All rhetorical questions of course. Answers not required.
> ----
> Your old, well-intentioned pal, Reg.
>
>

There are two Drs. Corum. Perhaps they're a husband-husband team.
At any rate, they're Cecil clones, manufacturing a controversy out
of thin air and fighting valiantly for it.
73,
Tom Donaly, KA6RUH

1175. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 15:17:06 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Svs1g.69969$Jd.36154@newssvr25.news.prodigy.net>
Source record: 60817

Tom Ring wrote:

> Richard Clark wrote:
>
>> Hi Tom,
>>
>> If the mood strikes me, I will see how much effort it takes to blow
>> away his "efficient" antenna. Seeing how he has no answers for its
>> construction, I can easily impose my own choices like an high E piano
>> string radiator mid loaded with a squirrel cage over a radial field of
>> rusting springs from a burnt-out mattress. There should be room for
>> improvement over that using a coat hanger with distributed loads of
>> barn nails over the roof of a 1948 Hudson.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>
> I would prefer a radiator made from half inch PVC filled with a dilute
> sodium chloride solution. If you put a valve at the bottom, it's a snap
> to adjust resonance.
>
> tom
> K0TAR

Have you tried beer?
73,
Tom Donaly, KA6RUH

1176. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 15:41:44 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145461304.602324.257300@u72g2000cwu.googlegroups.com>
Source record: 60818

I'd guess that Reg would use wine.

Cheers,
another of the Toms

(Now if W8JI will just add something to this subthread, we'll have four
of us in a row...)

1177. Re: antennas and rain

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 17:50:53 UTC
From: Steve Nosko <suteuve.nosukowicuz@moutouroula.com>
Message-ID: <e25t9tsio2@engnntp2.cig.mot.com>
Source record: 60820

For those old enough to remember a colorful character, Jim Ricks, W9TO. He wrote a paper in the CFO news letter on the effect of different colored insulation on antenna wire. unfortunately I don'thave a copy so I don't know the best color.

73, Steve, K9DCI.

There actually WAS such an article.

"jawod" <jawod@fuse.net> wrote in message
news:828f4$4445947d$453d9423$16800@FUSE.NET...
> I think I read in this newsgroup that a ham in the PNW waxed his dipole
> to keep the rain off. I couldn't tell whether it was just a joke?
>
> In an area notorious for lots of rain, do hams in the Northwest really
> wax their antennas?
>
> Even when waxed, what is the effect of rain/water on dipole
> chararacteristics?
>
> John
> AB8WH

1178. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 17:52:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <HNu1g.61646$F_3.23933@newssvr29.news.prodigy.net>
Source record: 60819

Gene Fuller wrote:
> You have really lost it. I gave you the exact quote, and you then
> proceed to talk about something else.

Your quote doesn't mean what you think it means. The velocity
factor equation is appropriate for quarterwave resonance *and*
any other length at the same frequency. The graph in the next
column over shows coils of 10,000 turns per wavelength. It does
NOT limit them to any length so your argument is bogus.

Their goal was to find a VF equation that worked for quarterwave
resonance but it works for a lot more than quarterwave resonance.
It holds for any length as can be seen from Fig. 1.

> So let's throw the topic back to you.

Too late, I asked you first. Where are the laws of physics
to back up your assertions? Certainly not contained in the
Corum papers. Please provide some reference that asserts
that the VF of a coil varies with its length while keeping
all other parameters constant.

The coil being modeled is 48 turns per foot. The wavelength
is 246 feet. 48*246 = 11,808 turns per wavelength. That's
on the Corum chart. There is NO minimum or maximum length
requirement or constraint. According to the paper, the velocity
factor is within 10% no matter what the length of the coil.

So holding all the variables constant in the velocity factor
equation and changing only the length is a valid way to
calculate the approximate delay through the coil. It's the
best way that we have so far. It is infinitely better than
using a signal with unchanging phase to try to measure
phase shift.

> So where and how does the Vf transition occur?

Just as in a transmission line, a VF transition occurs
at an impedance discontinuity. For a complete helical
antenna, there is no impedance discontinuity. For an
antenna containing a coil and wire, there is an impedance
discontinuity at the coil/wire interface.
--
73, Cecil http://www.qsl.net/w5dxp

1179. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 18:03:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <bYu1g.61649$F_3.28744@newssvr29.news.prodigy.net>
Source record: 60821

Reg Edwards wrote:
> What is the failure mode?
> Is it a sudden catastropic failure?
> Or does it fail very slowly, gradually and gently?

It fails gradually. It fails earlier for phase calculations
than it does for magnitude calculations. That's why the
phase shifts reported here are completely invalid. Here's
how it goes:

1. There is no phase shift through a lumped inductance.

2. The standing wave current with its unchanging phase
shows zero phase shift through a loading coil.

3. Therefore, a real world loading shows zero phase shift
just like a lumped inductance.

The proof was preassumed and invalid measurements support
the preassumed proof. Case closed!
--
73, Cecil http://www.qsl.net/w5dxp

1180. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 18:06:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <p_u1g.61650$F_3.11184@newssvr29.news.prodigy.net>
Source record: 60822

Tom Donaly wrote:
> There are two Drs. Corum. Perhaps they're a husband-husband team.

I believe they are brothers.
--
73, Cecil http://www.qsl.net/w5dxp

1181. Re: M2 6 Meter Yegis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 18:55:58 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87lku1mm2p.fsf@qmc.ph.msstate.edu>
Source record: 60823

>I am thinking for replacing my old Creative Design CL-6A 5 element 6 meter
>yagis with one of the M Squared antennas, either a 6M7, 6M7JHV, or a 6M2WLC.
>Does anyone know where there's any comparatiuve data on them or where there
>are product reviews on the 6M7 or 6M2WLC (the JHV was in QST a few years
>back)?
>
>Thanks
>
>Phil Finkle K6EID

>There ok if you want a thin element narrowband yagi. They do show SWR
>rise with ice and snow.
>
>Myself I'd want fatter elements for wider bandwidth and a bit more
>robust.

The design of the yagi (element lengths and spacing) has far greater
influence on the bandwidth than the element diameter. In other words,
a wire yagi could have wider bandwidth than one made with tubing.

It's also hard to say that larger diameter elements always survive
ice and wind better, as there are many variables: taper schedule, tubing
thickness, etc.

Tor
N4OGW

1182. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 19:31:51 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Hew1g.22890$az4.19990@bgtnsc04-news.ops.worldnet.att.net>
Source record: 60824

Cecil,

The "quote" was from your message, not the Corum paper. It is highly likely that it does not mean what I think it means. It probably does not even mean the same thing to you after a few minutes.

As for the Corum paper, would you be so kind as to point out the page where it is written:

The velocity factor equation is appropriate for quarterwave resonance *and* any other length at the same frequency.

I found the section that says the formula is appropriate at resonance, and I must have missed the part that says the formula works for any length as long as the frequency is maintained.

You still have not explained at what point the transition from Vf ~ 1 to Vf < 0.02 occurs.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> You have really lost it. I gave you the exact quote, and you then
>> proceed to talk about something else.
>
>
> Your quote doesn't mean what you think it means. The velocity
> factor equation is appropriate for quarterwave resonance *and*
> any other length at the same frequency. The graph in the next
> column over shows coils of 10,000 turns per wavelength. It does
> NOT limit them to any length so your argument is bogus.
>
> Their goal was to find a VF equation that worked for quarterwave
> resonance but it works for a lot more than quarterwave resonance.
> It holds for any length as can be seen from Fig. 1.

1183. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 20:05:40 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44469814$0$1013$39cecf19@news.twtelecom.net>
Source record: 60825

Tom Donaly wrote:

>> I would prefer a radiator made from half inch PVC filled with a dilute
>> sodium chloride solution. If you put a valve at the bottom, it's a
>> snap to adjust resonance.
>>
>> tom
>> K0TAR
>
>
> Have you tried beer?
> 73,
> Tom Donaly, KA6RUH

What!!?? That would be a waste of beer. Well, unless it was Budweiser.

tom
K0TAR

1184. I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 20:54:39 UTC
From: Skirt Chaser <my.em@il.dont.work>
Message-ID: <jsx1g.131$Vn.21@newsread4.news.pas.earthlink.net>
Source record: 60676
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

ARRL threw principle out the window when they caved in to the demands of the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when I opened my beloved QST magazine and there on the pages were photos of queers on a Tropical DXpedition, and in living color no less. The ARRL wanted us to embrace a sick perverted lifestyle and be one big happy family. To me, it was the spark that signaled the death of a once proud organization, and it turned liberal.

Now the queers have all but taken over, they're like the military wing of the Democratic party, and always in your face. It's not even safe to take your kids to Easter egg hunts anymore. I know you're all going to disagree with me, but a man touching and sucking on another man's cock and fucking his ass just ain't right. The ARRL promoted this, now look what happened to our radio groups.

SC

1185. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 20:59:06 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <OLydnY2F5K4HOdvZRVn-rA@comcast.com>
Source record: 60677

Tom Ring wrote:

> Tom Donaly wrote:
>
>>> I would prefer a radiator made from half inch PVC filled with a
>>> dilute sodium chloride solution. If you put a valve at the bottom,
>>> it's a snap to adjust resonance.
>>>
>>> tom
>>> K0TAR
>>
>>
>>
>> Have you tried beer?
>> 73,
>> Tom Donaly, KA6RUH
>
>
> What!!?? That would be a waste of beer. Well, unless it was Budweiser.
>
> tom
> K0TAR

What is the bulk conductivity of 'Bud'? How does the bulk conductivity
differ from other Beers? [I am a non drinker]

1186. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 21:02:04 UTC
From: FDR <_remove_spam_block_rzitka@hotmail.com>
Message-ID: <gzx1g.206$TT.140@twister.nyroc.rr.com>
Source record: 60678
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Skirt Chaser" <my.em@il.dont.work> wrote in message
news:jsx1g.131$Vn.21@newsread4.news.pas.earthlink.net...
>
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
>
> Now the queers have all but taken over, they're like the military wing of
> the Democratic party, and always in your face. It's not even safe to take
> your kids to Easter egg hunts anymore. I know you're all going to disagree
> with me, but a man touching and sucking on another man's cock and fucking
> his ass just ain't right. The ARRL promoted this, now look what happened
> to our radio groups.
>
> SC
>

Get a life.

1187. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 21:04:44 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <Tbednf_fRqNxONvZRVn-sg@comcast.com>
Source record: 60679
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Well, your refusing to properly identify yourself with a real name, ISP account, and Radio License casts doubt on the credibility of your post.

I did not know that the Democratic Party had a 'MILITARY WING'. Who is the commanding officer? What is the source of that officer's legal commission? [PS: I am Republican]

Finally, your prejudices are showing!!!

Skirt Chaser wrote:

> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
>
> Now the queers have all but taken over, they're like the military wing of
> the Democratic party, and always in your face. It's not even safe to take
> your kids to Easter egg hunts anymore. I know you're all going to disagree
> with me, but a man touching and sucking on another man's cock and fucking
> his ass just ain't right. The ARRL promoted this, now look what happened
> to our radio groups.
>
> SC
>

1188. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 22:33:00 UTC
From: Lancer <lancer@rock.com>
Message-ID: <08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com>
Source record: 60680
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

On Wed, 19 Apr 2006 20:54:39 GMT, Skirt Chaser <my.em@il.dont.work>
wrote:

>
>ARRL threw principle out the window when they caved in to the demands of
>the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
>I opened my beloved QST magazine and there on the pages were photos of
>queers on a Tropical DXpedition, and in living color no less. The ARRL
>wanted us to embrace a sick perverted lifestyle and be one big happy
>family. To me, it was the spark that signaled the death of a once proud
>organization, and it turned liberal.

Which issue of QST was that? Wanna bet that N8WWM was in that
DXpedition picture?

>
>Now the queers have all but taken over, they're like the military wing of
>the Democratic party, and always in your face. It's not even safe to take
>your kids to Easter egg hunts anymore. I know you're all going to disagree
>with me, but a man touching and sucking on another man's cock and fucking
>his ass just ain't right. The ARRL promoted this, now look what happened
>to our radio groups.
>
>SC

1189. Satellite telephones, models, providers, paging...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 22:43:08 UTC
From: konstantin79 <pankwebmaster@gmail.com>
Message-ID: <1145486588.430095.210890@i39g2000cwa.googlegroups.com>
Source record: 60681

Satellite telephones, latest news, informations, models, global satellite telephone providers, paging, satellite FAX system, voice over internet protocol informations... Read more at: http://www.freewebs.com/sattelephones

1190. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 23:04:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kmz1g.72655$dW3.12423@newssvr21.news.prodigy.com>
Source record: 60682

Gene Fuller wrote:
> As for the Corum paper, would you be so kind as to point out the page
> where it is written:
>
> The velocity factor equation is appropriate for quarterwave resonance
> *and* any other length at the same frequency.

I already told you - same page, Fig. 1 where that VF equation is
plotted. There is absolutely no reference to coil length in Fig. 1.
The only independent variables are the diameter/wavelength ratio
and the turns/wavelength ratio. For any length coil with the above
fixed parameters, including frequency, the VF is constant within
10%.

> I found the section that says the formula is appropriate at resonance,
> and I must have missed the part that says the formula works for any
> length as long as the frequency is maintained.

"We have found that this expression gives acceptable results (errors
less than 10%) for most practical applications that involve wave
propagation on helical resonators ..." Absolutely no mention of
14WL self-resonance.

> You still have not explained at what point the transition from Vf ~ 1 to
> Vf < 0.02 occurs.

It is explained perfectly in Fig. 1 where the VF scale goes from
0.0 to 1.0. Come over to my house for a beer and I will teach you
how to read that graph.

Exactly as would be expected, holding the diameter/wavelength ratio
constant, as the helical is wound tighter and tighter, the VF decreases.
--
73, Cecil http://www.qsl.net/w5dxp

1191. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 23:19:01 UTC
From: Phil Wheeler <w6tuh-ng7@yahoo.com>
Message-ID: <Fzz1g.8724$3W1.2310@tornado.socal.rr.com>
Source record: 60683
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Skirt Chaser wrote:
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
>
> Now the queers have all but taken over, they're like the military wing of
> the Democratic party, and always in your face. It's not even safe to take
> your kids to Easter egg hunts anymore. I know you're all going to disagree
> with me, but a man touching and sucking on another man's cock and fucking
> his ass just ain't right. The ARRL promoted this, now look what happened
> to our radio groups.
>
> SC
>

"Skirt Chaser": Monicker like that, and message above, suggests you are overcompensating for your own latent tendencies. Or perhaps you've been to close to your antenna while transmitting with a California Kilowatt.

"Our radio groups": What's your call, OM?

"Military wing of the Democratic party": You mean Hillary or who?

Phil, W7OX

1192. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 23:29:31 UTC
From: Dave <noone@nowhere.com>
Message-ID: <yIKdnYQ9TI99WtvZnZ2dnUVZ_t6dnZ2d@crocker.com>
Source record: 60684

1
"Tom Ring" <news0002@taring.org> wrote in message
news:44469814$0$1013$39cecf19@news.twtelecom.net...
> Tom Donaly wrote:
>
>>> I would prefer a radiator made from half inch PVC filled with a dilute
>>> sodium chloride solution. If you put a valve at the bottom, it's a snap
>>> to adjust resonance.
>>>
>>> tom
>>> K0TAR
>>
>>
>> Have you tried beer?
>> 73,
>> Tom Donaly, KA6RUH
>
> What!!?? That would be a waste of beer. Well, unless it was Budweiser.
>
> tom
> K0TAR

finally someone said something that makes sense in this thread... but no one
has addressed my original question directly... but i guess that is par for
the course in here when this group gets wound up, everyone goes off on their
own little tangent and starts attacking each other.

1193. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 23:32:53 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <FMz1g.23438$az4.19199@bgtnsc04-news.ops.worldnet.att.net>
Source record: 60685

Cecil Moore wrote:

>
> "We have found that this expression gives acceptable results (errors
> less than 10%) for most practical applications that involve wave
> propagation on helical resonators ..." Absolutely no mention of
> 14WL self-resonance.

Cecil,

Oh darn! There's that nasty reference to "resonator" again. You really need to read the paper again and attempt to understand it.

Try the left-hand column on the page for the fundamental mathematical limitation that underlies everything else on the page, including Figure 1.

Since this is a question of literacy and not technology there is little more to be said here.

73,
Gene
W4SZ

1194. Re: M2 6 Meter Yegis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 23:39:04 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <sSz1g.66848$H71.10750@newssvr13.news.prodigy.com>
Source record: 60686

And, here in DM09, , Elevation 5K feet, with winds in excess
or 70 MPH, my 7 El holds up just fine , except for when the TOWER
came down! But, with a total of 49 states worked,under this call
find it totally adiquite- and looked at the specs for this, vs.
the "JHV" 7 el, think the JHV is about a foot longer, has better
F/B, and .2 (2/10) dB extra gain! Think ANY of these would work fine
for all but the most discriminateing op (and never know the difference)!
and also, consider that get iceing here, maybe 2 inch dia. , and NOT
raining aluminium (elements falling off), like SOME other brands!
Jim NN7K

Tam/WB2TT wrote:
> <Allisonnospam@nouce.bellatlantic.net> wrote in message
> news:3mec42ldh6hqdp2nk0n1vh9b4t3i8qf2j1@4ax.com...
>
>>On Tue, 18 Apr 2006 11:28:45 -0400, "Phil" <k6eid@bellsouth.net>
>>wrote:
>>
>>
>>>I am thinking for replacing my old Creative Design CL-6A 5 element 6 meter
>>>yagis with one of the M Squared antennas, either a 6M7, 6M7JHV, or a
>>>6M2WLC.
>>>Does anyone know where there's any comparatiuve data on them or where
>>>there
>>>are product reviews on the 6M7 or 6M2WLC (the JHV was in QST a few years
>>>back)?
>>>
>>>Thanks
>>>
>>>Phil Finkle K6EID
>>
>>There ok if you want a thin element narrowband yagi. They do show SWR
>>rise with ice and snow.
>>
>>Myself I'd want fatter elements for wider bandwidth and a bit more
>>robust.
>>
>>Allison
>>
>
> At least where I live, FM20, I don't see thin elements as a big deal. I have
> had a KLM 50 - 7 LD up for over 20 years with no signs ef element damage. As
> for bandwidth, 50.0 to 50.25 is really all you need for CW and SSB.
>

> Tam/WB2TT
>
>

1195. Re: M2 6 Meter Yegis (more)

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-19 23:55:06 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <u5A1g.66852$H71.58455@newssvr13.news.prodigy.com>
Source record: 60687

OH, and consider (the comparison of (for DX engineerings 10 EL , with 1/2 inch dia elements), at 50 foot boom, vs. the M-squared, , at the same length, both have about the same gain, BUT at 35 # weight for the M-squared, and in EXCESS of 90 lbs for the DX-10 (BEFORE ICE LOADING!) just WHICH would you want to stand under, in winter ??? Thanks, I'll stick with my mini-monster (at about 17 Lbs) ! Jim NN7K

1196. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 00:06:41 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <upqdnWLFkcMITdvZnZ2dnUVZ_vadnZ2d@comcast.com>
Source record: 60688
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Skirt chaser?? Hmmm..... no ident, no name, no call, I can guess that your only jealous because you couldn't be there.
OTOH, maybe its because you must like those Scottsman's kilts.

-n6ojn

"Skirt Chaser" <my.em@il.dont.work> wrote in message news:jsx1g.131$Vn.21@newsread4.news.pas.earthlink.net...
>
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
>
> Now the queers have all but taken over, they're like the military wing of
> the Democratic party, and always in your face. It's not even safe to take
> your kids to Easter egg hunts anymore. I know you're all going to disagree
> with me, but a man touching and sucking on another man's cock and fucking
> his ass just ain't right. The ARRL promoted this, now look what happened
> to our radio groups.
>
> SC
>

1197. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 00:16:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <68kd42huiuskdov425cctr48ov0ateva13@4ax.com>
Source record: 60689

On Wed, 19 Apr 2006 23:32:53 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

>Oh darn! There's that nasty reference to "resonator" again.

Resonant [6], resonance [11], resonator (the title of the paper)[24]
are littered throughout so frequently [41 times in 10 pages] that you
would have to get a dispensation from the pope to talk about pure
resistance.

1198. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 00:25:38 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <6yA1g.3959$Fy2.2898@newsread3.news.pas.earthlink.net>
Source record: 60690

Reg Edwards wrote:
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:Jzq1g.48539$_S7.27538@newssvr14.news.prodigy.com...
>> Gene Fuller wrote:
>>
>>> Cecil Moore wrote:
>>> > A 75m bugcatcher coil is self resonant at 6.6 MHz. That's
>>> > near 4 MHz. Where is all your irrationality coming from?
>>>
>>> The exact quote from your message on April 11, at 9:57 am is
> copied
>>> below. I don't see anything about a bugcatcher coil.
>> The coil being discussed is a bugcatcher coil modeled in EZNEC.
>>
>>> Since the Corum paper highlighted the limitation for applicability
> of
>>> the magic formula it is possible he thought that the limitation
> might be
>>> important.
>> The limitation that Dr. Corum highlighted was the failure of the
>> lumped circuit model when the coil is self-resonant. He says that
>> when we are within 17% of self-resonance, the lumped circuit model
>> fails. Have you anything besides faith to prove that your model
>> is valid within 60% of self-resonance?
>>
>> Please describe the physics behind a radical change in velocity
>> factor (at the same frequency) when a coil is cut in half.
>> --
> ==
> Dear Cec,
>
> What is the failure mode?
> Is it a sudden catastropic failure?
> Or does it fail very slowly, gradually and gently?
>
> What is Dr.Corum a doctor of?
>
> From your quotes he sounds like a Quack. Or is he a Witch?
>
> What does he have to say about Fractals, E-H and the other wierd
> contraptions?
>
> How many other worshipping followers does he have besides yourself?
>

> Or are you just pulling our varicose-veined legs?
>
> All rhetorical questions of course. Answers not required.
> ----
> Your old, well-intentioned pal, Reg.

I summoned the spirit of the late Bert Newman G2FIX. Bert thinks Cecil is full of beans.

Dave K8MN

1199. Re: M2 6 Meter Yegis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 00:34:11 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <7GA1g.154$Vn.26@newsread4.news.pas.earthlink.net>
Source record: 60691

Allisonnospam@nouce.bellatlantic.net wrote:

> There is a problem with that, 500kHz bandwidth is trivial at 50mhz
> so why accept it?

"Accept"? The M2 antennas work hunky dory where all the activity is.

> If Ice is not a problem great! Can't ignore it here.

I've used my 6M5 in Finland and here in West Virginia. Ice and snow
don't seem to change anything.

> One problem with M2s is that the cable to element coupler is
> sometimes a problem.

I got my 6M5 in '88, part way through an assignment in Guinea-Bissau.
It lasted through three additional African assignments with heat,
humidity, dust and rain. It went through three years in wintery
Finland, all with the original element to cable coupler. A 2003 tower
failure made it necessary to replace two directors. While I was at it,
I replaced the original coaxial balun. That's pretty good service. In
fact, after the tower collapse, I replaced the Cushcraft 2m and 70cm
boomers with similar M2 models.

> Allison

Dave K8MN

1200. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 00:55:36 UTC
From: w8ji@akorn.net
Message-ID: <1145494536.037425.26570@i39g2000cwa.googlegroups.com>
Source record: 60692

> Cecil Moore wrote:
> > "We have found that this expression gives acceptable results (errors
> > less than 10%) for most practical applications that involve wave
> > propagation on helical resonators ..." Absolutely no mention of
> > 14WL self-resonance.

>Gene Fuller wrote:
> Oh darn! There's that nasty reference to "resonator" again. You really
> need to read the paper again and attempt to understand it.
>
> Try the left-hand column on the page for the fundamental mathematical
> limitation that underlies everything else on the page, including Figure 1.
>
> Since this is a question of literacy and not technology there is little
> more to be said here.

Gene,

I can't believe you are still trying to get Cecil to actually read the
paper he is misquoting.
I've seen his debating style before. It's the last man standing wins,
no matter how obviously wrong he is. You'll never win that kind of
debate with logic or science Gene.

Never.

73 Tom

1201. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 00:56:07 UTC
From: richardharrison@webtv.net
Message-ID: <2054-4446DC27-98@storefull-3257.bay.webtv.net>
Source record: 60694

Tom, K7ITM wrote:
"(Now if W8JI will just add something to this subthread, we`ll have four of us in a row---)"

Like the beat, beat, beat of a tom-tom--- No, that`s the wrong song.
It`s the one Merv Griffen sang with the Freddy Martin Orchestra:
"I`ve got a loverly bunch of coconuts. There they are all standing in a row. Large ones, small ones, some as big as your `ead, Give `em a twist, a flick of your wrist, that`s wot the showman said."

Best regards, Richard Harrison, KB5WZI

1202. Re: M2 6 Meter Yegis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 01:01:24 UTC
From: w8ji@akorn.net
Message-ID: <1145494884.074730.134490@t31g2000cwb.googlegroups.com>
Source record: 60693

Phil wrote:
> I am thinking for replacing my old Creative Design CL-6A 5 element 6 meter
> yagis with one of the M Squared antennas, either a 6M7, 6M7JHV, or a 6M2WLC.
> Does anyone know where there's any comparatiuve data on them or where there
> are product reviews on the 6M7 or 6M2WLC (the JHV was in QST a few years
> back)?
>
> Thanks
>
> Phil Finkle K6EID

Phil,

I have a pair of M squared 6M5's stacked at 140 feet, and don't have
any bandwidth, ice, or other problems.

They work just fine, and hold up well. Mine have had 1/2 inch of radial
ice and at other times winds over 100MPH. No problems.

No feedline or feedpoint problems, and I run a full kilowatt or so of
RF at the antenna even on CW.

73 Tom

1203. Re: 50 years ago - Not antenna related, but probably interestingto many

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 01:15:20 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <qMWdnTJQ6984fdvZnZ2dnUVZ_vydnZ2d@adelphia.com>
Source record: 60695

Irv Finkleman wrote:
> Mike Coslo wrote:
>
>>Tom Ring wrote:
>>
>>>I'm sure there are some here who will have memories stirred by this
>>>article.
>>>
>>>http://tvtechnology.com/features/news/2006.04.12-n_the_video_tape_02.shtml
>>>
>>
>> Great article, Tom. I'm a little surprised they didn't go into how the
>>stuff was edited.
>>
>> - 73 de Mike KB3EIA -
>
>
> Wire cutters?

HAR! Almost. The short version is that they ran the tape to the point that they wanted to edit, then put disclosure fluid on the spot to find the magnetized recording lines, and under magnification found the place they wanted and sliced the tape at that point. The footage that was spliced in was put in, and then the process continued. If the cut and splice wasn't accurate, sync would be lost.

Next time you watch an old TV show (pre-early 60s) note that there are not tight cuts.

- 73 de Mike KB3EIA -

1204. Re: paint on antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 01:16:44 UTC
From: richardharrison@webtv.net
Message-ID: <2055-4446E0FC-22@storefull-3257.bay.webtv.net>
Source record: 60696

Sal M, Onella wrote:
"We paint them now, too."

When I was in the navy, WW-2, the expression was: "If it moves, salute it. If it doesn`t, paint it!"

Best regards, Richard Harrison, KB5WZI

1205. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 01:51:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <rOB1g.50478$_S7.42936@newssvr14.news.prodigy.com>
Source record: 60697

Gene Fuller wrote:
> Oh darn! There's that nasty reference to "resonator" again. You really
> need to read the paper again and attempt to understand it.

Uhhhhh Gene, a 75m bugcatcher coil is a "resonator" that
resonates an 8 foot mobile antenna on 75m. Take a look at
Figure 2 in Dr. Corum's paper. It looks just like a top-
loaded 160m mobile antenna.

> Try the left-hand column on the page for the fundamental mathematical
> limitation that underlies everything else on the page, including Figure 1.

There is a test equation to see if a particular coil is
outside the fundamental mathematicdal limitations. A 75m
bugcatcher coil is less than half the limit value.

Let me show you how to use Fig. 1. The coil that we have
been discussing is 6 inches in diameter and has 4 turns
per inch. That makes D/lamda = 2.0 x 10^3. That's just
about in the middle of the graphic. The turns per wavelength
is 48*246 = 11,808. That's just to the left of the left
hand curve. Reading the velocity factor from the graph
gives about 0.03 for that coil. It's a piece of cake
if you understand the physics involved.
--
73, Cecil http://www.qsl.net/w5dxp

1206. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 02:08:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <42C1g.50484$_S7.869@newssvr14.news.prodigy.com>
Source record: 60698

w8ji@akorn.net wrote:
> I can't believe you are still trying to get Cecil to actually read the
> paper he is misquoting.

Unfortunately for your lumped circuit religion, I am not misquoting anything. Page 4 contains a test to see if a coil falls within the limitations of the velocity factor equation. A 75m bugcatcher coil is less than half the upper limit.

Here's the calculation: 5*N*D^2/lamda < 1

N is turns per unit length and D is the diameter.

5*48*0.5^2/246 = 0.24 < 1

Therefore, the graph in Fig. 1 is valid for 75m bugcatcher coils and the velocity factor is around 0.02. The VF equation yields the same value as the graph.

The lumped circuit model is known to fail. Dr. Corum knows where it fails. Most people on this newsgroup don't know. And when it does fail, the distributed network model gives valid results.

Why would you ever choose a model known to fail without knowing where it fails when you could be using a model known to be valid?
--
73, Cecil http://www.qsl.net/w5dxp

1207. Antennas (?) on military planes

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 02:53:09 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4446f796$0$1015$39cecf19@news.twtelecom.net>
Source record: 60699

I have long wondered about the thing that looks like an antenna above the pilot's seat on the plexiglass of fighter planes.

I was going to say what type of antenna structure it might be, but I know that I don't have a clue.

Anyone here know that is allowed to talk about it?

tom
K0TAR

1208. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 03:07:13 UTC
From: "Dr. Anton T. Squeegee" <SpammersBlow@dev.null>
Message-ID: <MPG.1eb09abe9284c1ed989690@news.drizzle.com>
Source record: 60700
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

In article <jsx1g.131$Vn.21@newsread4.news.pas.earthlink.net>,
my.em@il.dont.work (known to some as Skirt Chaser) scribed...

<drivelectomy>

Oh, look, nothing left.

Permit me to be the first to offer a resounding...

PLONK!

--
Dr. Anton T. Squeegee, Director, Dutch Surrealist Plumbing Institute
(Known to some as Bruce Lane, KC7GR)
http://www.bluefeathertech.com -- kyrrin a/t bluefeathertech d-o=t calm
"Salvadore Dali's computer has surreal ports..."

1209. Re: Antennas (?) on military planes

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 03:34:38 UTC
From: Allan Butler <ka0ies@hotmail.com>
Message-ID: <1145503818_3@64triton.net>
Source record: 60701

It could be one of two things that come to mind right now.

The first thing is a set of bus wires to feed the internal
heating grid for de-icing the canopy. The other wires that
do the actual heating would be too small to see.

The second thing that I can think of is the possible method
that is used to get the canopy out of the way for an ejection.
I believe, and could be wrong, that some of the canopies do not
actually slide to the back to allow ejection but the canopy itself
is shattered by an internal linear explosive that allows the crew
to leave the plane without contacting the canopy.

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

1210. Re: paint on antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 04:02:08 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <6JD1g.768$QP4.347@fed1read12>
Source record: 60702

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:2055-4446E0FC-22@storefull-3257.bay.webtv.net...
> Sal M, Onella wrote:
> "We paint them now, too."
>
> When I was in the navy, WW-2, the expression was: "If it moves, salute
> it. If it doesn`t, paint it!"
>
> Best regards, Richard Harrison, KB5WZI
>

Nothing much has changed, OM. I've been doing this since early 1962 and it's almost all the same except that the gear is fancier. More and more of the painted stuff gets sent out to be powder coated or flame sprayed -- techniques that have come into use since our first days -- but you still have to keep gummint property and salt air on opposite sides of some barrier. We have shore maintenance shops devoted to Corrosion Control in every Navy port.

73,
John
KD6VKW
EWCS, USN (Ret.)

1211. Re: Antennas (?) on military planes

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 04:13:55 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <9UD1g.769$QP4.536@fed1read12>
Source record: 60703

"Tom Ring" <news0002@taring.org> wrote in message
news:4446f796$0$1015$39cecf19@news.twtelecom.net...
>
> I have long wondered about the thing that looks like an antenna above
> the pilot's seat on the plexiglass of fighter planes.
>
> I was going to say what type of antenna structure it might be, but I
> know that I don't have a clue.
>
> Anyone here know that is allowed to talk about it?
>
> tom
> K0TAR

I have a cousin who is a former AF pilot (but he flew transports & helos ...
no fighters). He is traveling now and I will see him on Friday. He may
know.

1212. Re: Antenna Sharing for Marine - Weather Fax/NavTex and SSB-DSC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 05:11:55 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <xKE1g.772$QP4.48@fed1read12>
Source record: 60704

"Wet-n-Wild Bill" <snews@news.us> wrote in message
news:YYKdnZRQSPDGMN7ZRVn-jw@wavecable.com...
> forgot to mention: the freq of theWeather Fax is the same as the SSB 2-25
> MHZ
>
> Bill
>
>
> "Wet-n-Wild Bill" <snews@news.us> wrote in message
> news:oYOdnZ3Y1M8qMd7ZRVn-jw@wavecable.com...
> >I have an ICOM M-802 SSB and a Furuno FAX-30 (Weather Fax Reciever)
onboard
> >my boat. The ICOM M-802 has a dedicated receive port for DSC Receive.
Can
> >I share the FAX-30 Antenna with the DSC receive port of the SSB? if so
what
> >coupler should i use? (The SSB Xmit/Rec antenna is 3meters away)
> >
> > Bill
> >
>
>

http://www.furuno.com/Furuno/Doc/0/AGMACVGDT9H4DF39I5840AIHA8/FAX30%20Operat
or%27s%20manual%20d1%201.22.2003.pdf

They talk about a coupler in Section 7, but are not specific. As I dislike t-connectors on principle, I would use a 50-ohm power divider. They correspond to the action of a TV cable splitter but an actual TV cable splitter would not perform well at HF and below You can build your own in a metal project box, using a Y configuration with a 25-ohm carbon resistor in each leg to maintain some semblance of impedance matching. Maybe you can find an old TV cable splitter that you can gut for the purpose. For receive-only, the antenna length is not critical. I recall Navtex specifies a whip antenna of several meters; Navtex is on two freqs near 500 KHz, so it's not far from the AM broadcast band. Hm-m-m ... What does a car radio antenna look like???

Good luck.

1213. Re: Antennas (?) on military planes

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 05:19:17 UTC
From: Lee Smith <chnrfm@mts.net>
Message-ID: <cTE1g.142$aD6.141@newsfe18.lga>
Source record: 60705

Tom:

Unless I miss my bet, it seems you are referring to what looks like wire embedded in the top of the canopy, but is really small diameter detonation cord (det cord) and it is used as one of the first events in an ejection sequence.

In the type I am describing, the transparent canopy is shattered by the explosive in the det cord, the slipstream carries away all the small bits of plexiglass and the ejection seat containing the pilot follows a few microseconds later. In some types, the whole canopy is blown clear of the aircraft before the seat goes. An example of this can be seen in the picture of the ASAF Thunderbirds F-16 ejection at http://www.ejectionsite.com/ a search on ejection seats might make for some interesting reading.

Hopefully, I'm not leading you on a wild goose chase.

Regards,
Lee

1214. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 08:21:40 UTC
From: miso@sushi.com
Message-ID: <1145521299.979215.199760@e56g2000cwe.googlegroups.com>
Source record: 60706
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Idaho poster. Why am I not surprised?

Skirt Chaser wrote:
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
>
> Now the queers have all but taken over, they're like the military wing of
> the Democratic party, and always in your face. It's not even safe to take
> your kids to Easter egg hunts anymore. I know you're all going to disagree
> with me, but a man touching and sucking on another man's cock and fucking
> his ass just ain't right. The ARRL promoted this, now look what happened
> to our radio groups.
>
> SC

1215. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 11:29:44 UTC
From: Tony Roma <TonyRom@msn.com>
Message-ID: <22se42d1ndkmbrj99p6675l6k2t16rplk4@4ax.com>
Source record: 60707
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

On Wed, 19 Apr 2006 20:54:39 GMT, Skirt Chaser <my.em@il.dont.work>
wrote:

>
>I know you're all going to disagree
>with me, but a man touching and sucking on another man's cock and fucking
>his ass just ain't right.

You said a mouthful. Oh and I agree with you. It just aint natural! I
mean imagine a guy sucking on my cock. what am I supposed to do, come
in his mouth??? Very disturbing!

1216. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 12:08:45 UTC
From: Lloyd <lloyd@no.spammmmm>
Message-ID: <GW8701733.58F8789@tarrnews.net>
Source record: 60708
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

On 20 Apr 2006 01:21:40 -0700, miso@sushi.com <perfect example> wrote from NNTP-Posting-Host 216.27.181.190:

> Idaho poster. Why am I not surprised?

San Francisco poster. Why am I not surprised?

1217. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 12:18:14 UTC
From: w8ji@akorn.net
Message-ID: <1145535494.518180.112020@v46g2000cwv.googlegroups.com>
Source record: 60709

Dave wrote:
> finally someone said something that makes sense in this thread... but no one
> has addressed my original question directly... but i guess that is par for
> the course in here when this group gets wound up, everyone goes off on their
> own little tangent and starts attacking each other.

I tried to, but I see it did no good at all.

I have a Force 12 80 and 40 meter linear loaded Yagi.

The Q of the loading sections are terrible. They are thin aluminum wire
of some sort of alloy that makes them hard.

For the typical reactances produced by that loading system Q (reactance
over ESR) is well in the sub-100 range.

That's why you can take even a fairly poor loading coil, replace the
linear loading, and have the same perfromance. Or you can make a good
coil, like airdux or BW stock with number 12-14 wire, and make the
antenna work better (IF you can keep it from falling apart in the
wind).

The results of linear loading depends on where the linear loading is
installed and how it is constructed, but the general rule is if you
take the very same size and material conductors and wind a coil it will
work better.

Now I suppose we can talk about UHF antennas, 1/2 inch copper tubing
stubs, Cecil's imaginary reflected waves, quote Harrison's book
collection.....but that's how the Force 12 linear loaded 80 and 40
meter antennas I have work.

That's why they are laying in a pile with waddled out holes near the
rivets and all that lossy linear loading wire wrapped up in a ball,
waiting the be rebuilt into good antennas.

73 Tom

1218. Re: Antenna Sharing for Marine - Weather Fax/NavTex and SSB-DSC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 12:22:48 UTC
From: chuck <nospam@nospam.net>
Message-ID: <s2L1g.7045$sq5.5156@newsread2.news.atl.earthlink.net>
Source record: 60710

Sal M. Onella wrote:
> "Wet-n-Wild Bill" <snews@news.us> wrote in message
> news:YYKdnZRQSPDGMN7ZRVn-jw@wavecable.com...
>
>>forgot to mention: the freq of theWeather Fax is the same as the SSB 2-25
>>MHZ
>>
>>Bill
>>
>>
>>"Wet-n-Wild Bill" <snews@news.us> wrote in message
>>news:oYOdnZ3Y1M8qMd7ZRVn-jw@wavecable.com...
>>
>>>I have an ICOM M-802 SSB and a Furuno FAX-30 (Weather Fax Reciever)
>
> onboard
>
>>>my boat. The ICOM M-802 has a dedicated receive port for DSC Receive.
>
> Can
>
>>>I share the FAX-30 Antenna with the DSC receive port of the SSB? if so
>
> what
>
>>>coupler should i use? (The SSB Xmit/Rec antenna is 3meters away)
>>>
>>>Bill
>>>
>>
>>
>
> http://www.furuno.com/Furuno/Doc/0/AGMACVGDT9H4DF39I5840AIHA8/FAX30%20Operat
> or%27s%20manual%20d1%201.22.2003.pdf
>
> They talk about a coupler in Section 7, but are not specific. As I dislike
> t-connectors on principle, I would use a 50-ohm power divider. They
> correspond to the action of a TV cable splitter but an actual TV cable
> splitter would not perform well at HF and below You can build your own in a
> metal project box, using a Y configuration with a 25-ohm carbon resistor in
> each leg to maintain some semblance of impedance matching. Maybe you can
> find an old TV cable splitter that you can gut for the purpose. For
> receive-only, the antenna length is not critical. I recall Navtex specifies
> a whip antenna of several meters; Navtex is on two freqs near 500 KHz, so

> it's not far from the AM broadcast band. Hm-m-m ... What does a car radio
> antenna look like???
>
> Good luck.
>
>

Impedance matching shouldn't be an issue for the OP since he is using an active antenna. A short whip at at 500 kHz presents a terrible mismatch to a "50 ohm" receiver input so the active antenna matches impedance, usually with an FET source follower, and may provide gain as well. The more interesting question is how the active antenna "works" over the entire HF range without retuning!

The potential problem with a tee is that it provides no isolation between the two receivers. But I doubt that would be a problem. All it takes is a couple of dollars and a few minutes to find out.

Chuck

1219. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 12:26:14 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44477de6$0$1014$39cecf19@news.twtelecom.net>
Source record: 60711

Dave wrote:

>> What!!?? That would be a waste of beer. Well, unless it was Budweiser.
>>
>> tom
>> K0TAR
>
>
> What is the bulk conductivity of 'Bud'? How does the bulk conductivity
> differ from other Beers? [I am a non drinker]
>

Well, you can't waste Bud. For those that appreciate real beers and lagers, Budweiser is universally shunned. One batch at the factory, add preservatives, flavor enhancers, artificial flavorings, and voila! You have 10 different kinds of Bud. Or so I've heard. ;)

I'm not sure about the conductivity. It might be worth buying a single to test.

tom
K0TAR

1220. troll troll troll your boats

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 13:01:26 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1145538086.422974.84870@j33g2000cwa.googlegroups.com>
Source record: 60712
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Skirt Chaser wrote:
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
grow up the ARRL had no legeal choice

of course folks like you thrpwow out the law when it suits them

1221. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 13:24:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <4YL1g.72782$dW3.28265@newssvr21.news.prodigy.com>
Source record: 60713

w8ji@akorn.net wrote:
> Now I suppose we can talk about ...
> Cecil's imaginary reflected waves, ...

Sorry, Tom, I cannot take credit for reflected waves on standing wave antennas. That you didn't realize that you were dealing with a standing wave antena is part of your problem.

Kraus: "A sinusoidal current distribution may be regarded as the standing wave produced by two uniform (unattenuated) traveling waves of equal amplitude moving in opposite directions along the antenna."

Balanis: "The sinusoidal current distribution of long open-ended linear antennas is a standing wave constructed by two waves of equal amplitude and 180 degree phase difference at the open-end traveling in opposite directions along its length."

Balanis: "The current and voltage distributions on open-ended wire antennas are similar to the standing wave patterns on open-ended transmission lines."

Balanis: "Standing wave antennas, such as the dipole, can be analyzed as traveling wave antennas with waves propagating in opposite directions (forward and backward) and represented by traveling wave currents ..."
--
73, Cecil http://www.qsl.net/w5dxp

1222. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 13:56:26 UTC
From: AC7PN <brunius@rockisland.com>
Message-ID: <1145541385.985202.176180@u72g2000cwu.googlegroups.com>
Source record: 60714
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Watching two men holding hands and kissing gives me the creeps less
than your intolerant letter. What two men do out of my sight doesn't
bother me at all. Skirt Chaser should do us all a favor and practice
his intollerance in the privacy of his own home.

Although I'm not about to go see that Broke Back Mountain movie I would
be happy to talk with a gay ham on the bands.

Bob AC7PN

1223. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 13:59:31 UTC
From: Mike Lee <swift240@yahoo.co.uk>
Message-ID: <7tM1g.130837$zI1.16870@fe2.news.blueyonder.co.uk>
Source record: 60715
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Skirt Chaser wrote:
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
>
> Now the queers have all but taken over, they're like the military wing of
> the Democratic party, and always in your face. It's not even safe to take
> your kids to Easter egg hunts anymore. I know you're all going to disagree
> with me, but a man touching and sucking on another man's cock and fucking
> his ass just ain't right. The ARRL promoted this, now look what happened
> to our radio groups.
>
> SC
>
@skirt chaserBloody well grow up, you moron.

Mike.

1224. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 14:00:16 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1145541616.262895.130480@i40g2000cwc.googlegroups.com>
Source record: 60716
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

AC7PN wrote:
> Watching two men holding hands and kissing gives me the creeps less
> than your intolerant letter. What two men do out of my sight doesn't
> bother me at all. Skirt Chaser should do us all a favor and practice
> his intollerance in the privacy of his own home.
sadly he can't he is so frightened he must try to drive people he
dislikes out of existance
>
> Although I'm not about to go see that Broke Back Mountain movie I would
> be happy to talk with a gay ham on the bands.
>
> Bob AC7PN

1225. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 14:18:58 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <124f62lqr9saac2@corp.supernews.com>
Source record: 60717
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Skirt Chaser wrote:
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
>
> Now the queers have all but taken over, they're like the military wing of
> the Democratic party, and always in your face. It's not even safe to take
> your kids to Easter egg hunts anymore. I know you're all going to disagree
> with me, but a man touching and sucking on another man's cock and fucking
> his ass just ain't right. The ARRL promoted this, now look what happened
> to our radio groups.
>
> SC
>
This is way off topic for this site "Skirt", I bet some voice is telling
you to post this stuff to hide your "homo" side. Well "Skirt", if you
really want to hide your sexuality, just keep your mouth shut! Know
whut I mean?

KF5DE

1226. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 14:25:54 UTC
From: Bert Hyman <bert@iphouse.com>
Message-ID: <Xns97AB60117A8E9VeebleFetzer@127.0.0.1>
Source record: 60718
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

lynyrd@cableone.net (Butch Magee) wrote in
news:124f62lqr9saac2@corp.supernews.com:

> This is way off topic for this site "Skirt",

What "site" would that be?

And, thanks for reposting his message in its entirety.

--
Bert Hyman | St. Paul, MN | bert@iphouse.com

1227. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 14:55:24 UTC
From: Bill Mutch <wcm1@cornell.edu>
Message-ID: <e287cr$89d$1@ruby.cit.cornell.edu>
Source record: 60719
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

FDR wrote:
> "Skirt Chaser" <my.em@il.dont.work> wrote in message
> news:jsx1g.131$Vn.21@newsread4.news.pas.earthlink.net...
>
>>ARRL threw principle out the window when they caved in to the demands of
>>the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
>>I opened my beloved QST magazine and there on the pages were photos of
>>queers on a Tropical DXpedition, and in living color no less. The ARRL
>>wanted us to embrace a sick perverted lifestyle and be one big happy
>>family. To me, it was the spark that signaled the death of a once proud
>>organization, and it turned liberal.
>>
>>Now the queers have all but taken over, they're like the military wing of
>>the Democratic party, and always in your face. It's not even safe to take
>>your kids to Easter egg hunts anymore. I know you're all going to disagree
>>with me, but a man touching and sucking on another man's cock and fucking
>>his ass just ain't right. The ARRL promoted this, now look what happened
>>to our radio groups.
>>
>>SC
>>
>
>
> Get a life.
>
>
My responce exactly !

1228. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 14:58:22 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <4447a18e_5@newsfeed.slurp.net>
Source record: 60721
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

ORIGINAL MESSAGE:

Skirt Chaser wrote:

> ARRL threw principle out the window when they caved in to the demands
> of the Lambda Amateur Radio Club (LARC).

********** REPLY SEPARATOR **********

I find it fascinating to see all the personal attacks against Skirt Chaser, but not one poster says his conclusions are wrong.

Reminds me of some years ago when Dan Quayle attacked Murphy Brown for portraying a decadent lifestyle. He got crap from all over the spectrum, but not one attacker said his conclusions were wrong either.

Food for thought.

Bill, W6WRT

1229. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 15:01:57 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <FnN1g.52632$1q4.2522@bgtnsc05-news.ops.worldnet.att.net>
Source record: 60720

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> I can't believe you are still trying to get Cecil to actually read the
>> paper he is misquoting.
>
>
> Unfortunately for your lumped circuit religion, I am not
> misquoting anything. Page 4 contains a test to see if a
> coil falls within the limitations of the velocity factor
> equation. A 75m bugcatcher coil is less than half the
> upper limit.
>
> Here's the calculation: 5*N*D^2/lamda < 1
>
> N is turns per unit length and D is the diameter.

Cecil,

Selective quoting can have the same effect as misquoting. If one goes back a few words in the same long sentence it can be observed that the more complete limitation is stated as:

"... an approximation for M has been determined by Kandoian and Sichak which is *appropriate for quarter-wave resonance* and is valid for helices with 5*N*D^2/lambda < 1 ..."

[emphasis was in the original]

You apparently choose to accept the second half of the condition while ignoring the first half. In most cases the "AND" construction means both parts apply.

Do you really think the Vf is dependent only on the turn density and not the number of turns? Corum never says such a thing, since the number of turns is dictated by the resonance requirement. How far down does your magic extend? To half the turns needed for resonance? To one turn? To less than one turn? Where is the transition in Vf from the ~1 for zero turns to ~0.02 for a resonant coil?

For anyone still reading who is bored (everyone) or confused by this topic (perhaps) the importance to the subject at hand is that Cecil has mis-used this reference paper to "prove" that the 75 meter loading coil replaces approximately 45 degrees of the original unloaded quarter wave antenna. After his long struggle to prove his point with modeling, and achieving only 10 degrees of phase replacement, he abandoned that

approach for this latest futile attempt. The "missing" portion of the test antenna is about 75 degrees, so 45 degrees would barely squeak in under the 59% precision rule.

73,
Gene
W4SZ

1230. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 15:05:03 UTC
From: Phil Wheeler <w6tuh-ng7@yahoo.com>
Message-ID: <zqN1g.5666$543.2598@tornado.socal.rr.com>
Source record: 60722

A. His conclusion are wrong.

B. Dan Quayle was also wrong.

Happy?

73, Phil w7ox

Bill Turner wrote:
> ORIGINAL MESSAGE:
>
> Skirt Chaser wrote:
>
>
>>ARRL threw principle out the window when they caved in to the demands
>>of the Lambda Amateur Radio Club (LARC).
>
>
>
>
> ********** REPLY SEPARATOR **********
>
> I find it fascinating to see all the personal attacks against Skirt
> Chaser, but not one poster says his conclusions are wrong.
>
> Reminds me of some years ago when Dan Quayle attacked Murphy Brown for
> portraying a decadent lifestyle. He got crap from all over the
> spectrum, but not one attacker said his conclusions were wrong either.
>
> Food for thought.
>
> Bill, W6WRT

1231. Choke Balun Torture

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 15:17:11 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145546231.626871.112300@e56g2000cwe.googlegroups.com>
Source record: 60723

I've constructed a choke balun from a big toroidal core I had lying around, abt 3.5 inch O.D., 2 inch ID, unknown material, measures about 125 ohms pure inductive at 7 MHz with 3 turns on it, so I figured that 10 or 12 turns would be an effective 7MHz choke*.

The coax is RG-55 double shielded RG-58 size, solid center conductor, solid polyethylene dielectric.

I wound the coax pretty tightly for neatness; each turn is probably only 1 inch inner diameter.

Is this too tight? With a 47 ohm resistor in series with the output wires (I figure about 0.05 microhenries there, it's a few inches of wire), I get what I think are more or less expected results right now. I've been playing with one of Reg's programs to see if the impedance at the input side of the balun jives with the termination, and I think it does, but I can't just go up up up in frequency with the MFJ-259 to see if I've affected the *cable* impedance unless I cut off my weather sealed, heat shrinked, and Anderson Powerpoled coil tap wires and put on a BNC and terminator.

So I wonder about the longevity of the thing. How tight do you coil your toroidal choke baluns?

*Another question, figured I'd put it at the end. What's the impedance/length of the 43 material core that fits over RG-58 down at 7-10MHz. Amidon and Fair-Rite sites have some spot measurements higher up that I've found, but I'm not turning up charts for all of HF.

I know 43 material is not used so much for low-power HF choke baluns because of reduced per-bead impedance, but I got a big box of them for free, so it's just stringing effort on my part to make a bead choke for 40m.

73,
Dan
N3OX

1232. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 15:53:54 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <m8O1g.61936$F_3.59360@newssvr29.news.prodigy.net>
Source record: 60724

"Gene Fuller" <W4SZzzzzzz@att.net> wrote:
> Selective quoting can have the same effect as misquoting. If one goes
> back a few words in the same long sentence it can be observed that the
> more complete limitation is stated as:
>
> "... an approximation for M has been determined by Kandoian and Sichak
> which is *appropriate for quarter-wave resonance* and is valid for
> helices with 5*N*D^2/lambda < 1 ..."

I have already explained that to you twice now, Gene. This is the third time so listen up. They were looking for a formula "appropriate for quarter-wave resonance" and they found one that works for lengths other than a quarter-wavelength. If it worked *only* for quarter-wave resonance, they would have said so. You are confusing a mutually inclusive statement with a mutually exclusive statement.

> Do you really think the Vf is dependent only on the turn density and not
> the number of turns? Corum never says such a thing, ...

Already asked and answered. He certainly does imply such a thing in Fig. 1. The VF is dependent only on the turn density and the diameter of the coil. The number of turns affects the length of the coil. The length of the coil is NOT a parameter in the graphic nor does it appear in the equation.

Does a 1/4WL transmission line have a different VF when it is increased to 1/2WL?

> Where is the transition in Vf from the ~1 for zero
> turns to ~0.02 for a resonant coil?

Already asked and answered. If you cannot read Fig 1, then you have a problem. The VF in the graphic goes from 0.0 to 1.0.

> After his long struggle to prove his point with modeling, and
> achieving only 10 degrees of phase replacement, he abandoned that
> approach for this latest futile attempt.

The voltage was 67 degrees out of phase with the current so we weren't dealing with traveling waves. That's why I abandoned it - because I was on the verge of making the same mistake that W7EL and W8JI already made - trusting measurements in the presence of standing waves.

> The "missing" portion of the
> test antenna is about 75 degrees, so 45 degrees would barely squeak in
> under the 59% precision rule.

Once again, there is no "missing" portion of an antenna. The delay through the loading coil is what it is. There is absolutely no requirement that it be
a certain number of degrees.

What is required is that (Vfor+Vref)/(Ifor+Iref) be purely resistive at the feedpoint. There is absolutely no requirement for the antenna to be 90 degrees long. That is just another one of your many strawmen.

I am trying to zero in on the technical facts. What are you trying to do?
--
73, Cecil, W5DXP

1233. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 16:17:35 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1145549855.877794.85610@t31g2000cwb.googlegroups.com>
Source record: 60725
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Skirt Chaser wrote:
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
>
> Now the queers have all but taken over, they're like the military wing of
> the Democratic party, and always in your face. It's not even safe to take
> your kids to Easter egg hunts anymore. I know you're all going to disagree
> with me, but a man touching and sucking on another man's cock and fucking
> his ass just ain't right. The ARRL promoted this, now look what happened
> to our radio groups.
>
> SC

Your comments indicate that have an unusual interest in the homosexual
lifestyle. By appearing to be virulently anti-homosexual you come
across as trying too hard to convince us that you are heterosexual.
Possibly you need to convince yourself first that you don't have
homosexual tendencies before trying so hard to convince others.

Really, it's ok if you are. Just accept yourself as you are and
everything will be fine - eventually.

1234. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 16:23:53 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1145550233.735338.6190@v46g2000cwv.googlegroups.com>
Source record: 60726
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Bill Turner wrote:
> ORIGINAL MESSAGE:
>
> Skirt Chaser wrote:
>
> > ARRL threw principle out the window when they caved in to the demands
> > of the Lambda Amateur Radio Club (LARC).
>
>
>
> ********** REPLY SEPARATOR **********
>
> I find it fascinating to see all the personal attacks against Skirt
> Chaser, but not one poster says his conclusions are wrong.

well you facts are in error

I said his conclusions were wrong

The ARRL had no real choice in allowing LARC to advertise the cloesets
it had to a choice was a long and expensive legal battle that it would
likely lose

as to the rest I refarined from comenting on the posters obvious sexaul
issues becaus ethey were
A) obvious and
B) simple the run of a flase premises which by the GIGO meant they
rest was garbage

1235. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 16:26:04 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1145550364.327901.17800@v46g2000cwv.googlegroups.com>
Source record: 60727
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

John S. wrote:

> Your comments indicate that have an unusual interest in the homosexual
> lifestyle. By appearing to be virulently anti-homosexual you come
> across as trying too hard to convince us that you are heterosexual.

certainly he does
> Possibly you need to convince yourself first that you don't have
> homosexual tendencies before trying so hard to convince others.
>
> Really, it's ok if you are. Just accept yourself as you are and
> everything will be fine - eventually.

other than having to deal with forever most likelyy the unwanted
nonsence from people that can't mind thier own bussnes yes

you would not Johnthat was posting in RRAP in the year ago range

1236. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 16:52:34 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1145551954.218241.149760@v46g2000cwv.googlegroups.com>
Source record: 60728
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

an old freind wrote:
> John S. wrote:
>
> > Your comments indicate that have an unusual interest in the homosexual
> > lifestyle. By appearing to be virulently anti-homosexual you come
> > across as trying too hard to convince us that you are heterosexual.
>
> certainly he does
> > Possibly you need to convince yourself first that you don't have
> > homosexual tendencies before trying so hard to convince others.
> >
> > Really, it's ok if you are. Just accept yourself as you are and
> > everything will be fine - eventually.
>
> other than having to deal with forever most likelyy the unwanted
> nonsence from people that can't mind thier own bussnes yes
>
> you would not Johnthat was posting in RRAP in the year ago range

I've tried to figure out what you were saying, but can't. Try again.

1237. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 16:54:21 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1145552061.241466.262370@e56g2000cwe.googlegroups.com>
Source record: 60729

Bill Turner wrote:
> ORIGINAL MESSAGE:
>
> Skirt Chaser wrote:
>
> > ARRL threw principle out the window when they caved in to the demands
> > of the Lambda Amateur Radio Club (LARC).
>
>
>
> ********** REPLY SEPARATOR **********
>
> I find it fascinating to see all the personal attacks against Skirt
> Chaser, but not one poster says his conclusions are wrong.
>
> Reminds me of some years ago when Dan Quayle attacked Murphy Brown for
> portraying a decadent lifestyle. He got crap from all over the
> spectrum, but not one attacker said his conclusions were wrong either.
>

And his conclusions are what. Please provide a list. All I read was
ranting.

1238. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 16:54:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v4ff42l4lrtkuc2o9t8nti8b7e7ednutmc@4ax.com>
Source record: 60730

On 20 Apr 2006 06:57:31 -0700, "Bill" <k4wge@arrl.net> wrote:

>Yuri Blanarovich wrote:
>> "Richard Clark" <kb7qhc@comcast.net> wrote
>> >
>> > How much better? This sounds like a fractal sales pitch.
>> >
>>
>> Your HOW MUCH is getting a bit TOO MUCH!
>> Comparing this to fractal sales pitch??? That is TOO MUCH!
>
>He's right, Richard. That was an awfully low blow.

Yeah, I suppose I should apologize to the fractal crowd.

1239. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 17:09:28 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <cfP1g.61969$F_3.5826@newssvr29.news.prodigy.net>
Source record: 60731

"Gene Fuller" <W4SZzzzzzz@att.net> wrote in message:
> Where is the transition in Vf from the ~1 for zero
> turns to ~0.02 for a resonant coil?

Take the VF=0.02 resonant coil and divide it into two equal
coils. Do you really expect the two coils to have VFs of 1.0
while their end-to-end combination results in a VF of
0.02? Please quote the laws of physics that allows such
to happen.
--
73, Cecil, W5DXP

1240. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 17:29:49 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <hyP1g.53289$1q4.42981@bgtnsc05-news.ops.worldnet.att.net>
Source record: 60732

Cecil Moore wrote:
> "Gene Fuller" <W4SZzzzzzz@att.net> wrote:

>
>>Do you really think the Vf is dependent only on the turn density and not
>>the number of turns? Corum never says such a thing, ...
>
>
> Already asked and answered. He certainly does imply such a thing in Fig. 1.
> The VF is dependent only on the turn density and the diameter of the coil.
> The number of turns affects the length of the coil. The length of the coil
> is NOT a parameter in the graphic nor does it appear in the equation.
>
> Does a 1/4WL transmission line have a different VF when it is increased
> to 1/2WL?
>
>
>>Where is the transition in Vf from the ~1 for zero
>>turns to ~0.02 for a resonant coil?
>
>
> Already asked and answered. If you cannot read Fig 1, then you have
> a problem. The VF in the graphic goes from 0.0 to 1.0.

Cecil,

You just contradicted yourself. Yes, indeed, Fig.1 shows Vf going from 0.0 to 1.0. But as you pointed out, there is no dependency on the number of turns anywhere in the chart axes or in the plotted data. It would be useful if you looked at the caption on that figure to attempt to understand what is actually being plotted. The vertical scale is Vf and the horizontal scale is D/lambda. The parameter attached to each curve is "N", which is defined as the turns per wavelength.

We would expect a very short coil to look like a straight wire, with a Vf near 1.0. How does the Vf transition to 0.02 for a resonant coil occur? That transition is most certainly NOT shown in Fig. 1.

73,
Gene
W4SZ

1241. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 17:37:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4kff42pqcligc4kdjgqimpjo0f671leoan@4ax.com>
Source record: 60733

On Thu, 20 Apr 2006 15:01:57 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:
>For anyone still reading who is bored

Hi Gene,

To ask about those still reading, there is one very good reason why
the thread persists: topic drift as your post has just raised the
opportunity to:
1. argue the original quotation by shifting authors;
2. argue the subquotation in terms of ANDing where his sum of the
parts never equal the whole;
3. respond to "do you think the Vf" in terms that diverge from your
yes/no;
4. argue no one uses a one turn coil load for 160M (this is all
getting too easy to dissemble);
5. discuss transitions when you obviously don't believe they exist
(more arguments over inconsequentials);
6. counter-claim old claims (aka correcting what he would call your
bad context);
7. argue models (he has already questioned EZNEC's capacity in some
form - you will only tread that old ground once again);
8. fight over "missing" portions of the antenna - Cecil can prove he
never "exactly" said it did!;
9. ... and more through finer parsing than found here (and it is
guaranteed to be found, that has been amply demonstrated when you feed
the troll).

Those exchanges are like watching someone chase the clown in a
revolving door with discarded lines of attack flying out like grass
clippings from a lawn mower.

Cecil has never been able to hold his ground to one point when I've
drilled down instead of following the outrageous. No one want to
abandon the only true content, the comedy; but, really, the knots of
argument are far more deterministic than the technical issue
supposedly being discussed.

73's
Richard Clark, KB7QHC

1242. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 17:39:24 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <fHP1g.25850$az4.18398@bgtnsc04-news.ops.worldnet.att.net>
Source record: 60734

Cecil Moore wrote:
> "Gene Fuller" <W4SZzzzzzz@att.net> wrote in message:
>
>>Where is the transition in Vf from the ~1 for zero
>>turns to ~0.02 for a resonant coil?
>
>
> Take the VF=0.02 resonant coil and divide it into two equal
> coils. Do you really expect the two coils to have VFs of 1.0
> while their end-to-end combination results in a VF of
> 0.02? Please quote the laws of physics that allows such
> to happen.
> --
> 73, Cecil, W5DXP
>
>
Cecil,

What is the mystery? Have you never seen a response curve for a resonant condition? It is not exactly linear.

You are the expert on Vf. You assert without proof that a half-length coil has the same Vf as the full-length resonant coil. OK, even if I accepted that supposition, what happens at a quarter-length or at a tenth-length? I am simply asking how the function changes between the "known" limits of 1.0 and <0.02. You have repeatedly ducked any sort of answer.

73,
Gene
W4SZ

1243. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 17:45:39 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <7NP1g.61974$F_3.13709@newssvr29.news.prodigy.net>
Source record: 60735

"Gene Fuller" <W4SZzzzzzz@att.net> wrote:
> We would expect a very short coil to look like a straight wire, ...

There you go again. We are not talking about very short coils.
We are talking about big honking 75m bugcatcher coils. We
are talking about taking a 1/4WL self-resonant coil and cutting
it into two equal sized coils. The VF is not likely to change by
more than 10%.

> How does the Vf transition to 0.02 for a resonant coil
> occur? That transition is most certainly NOT shown in Fig. 1.

Of course it is shown. Draw a vertical line at 10^-3. The 10k
turns per lamda coil has a VF of 0.07. The 50 turns per lamda
has a VF of 0.86. Exactly the same principle applies to your
question.
--
73, Cecil, W5DXP

1244. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 17:46:01 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <tNP1g.53358$1q4.16615@bgtnsc05-news.ops.worldnet.att.net>
Source record: 60736

Richard Clark wrote:
> On Thu, 20 Apr 2006 15:01:57 GMT, Gene Fuller <W4SZzzzzzz@att.net>
> wrote:
>
>>For anyone still reading who is bored
>
>
> Hi Gene,
>
> To ask about those still reading, there is one very good reason why
> the thread persists: topic drift as your post has just raised the
> opportunity to:
> 1. argue the original quotation by shifting authors;
> 2. argue the subquotation in terms of ANDing where his sum of the
> parts never equal the whole;
> 3. respond to "do you think the Vf" in terms that diverge from your
> yes/no;
> 4. argue no one uses a one turn coil load for 160M (this is all
> getting too easy to dissemble);
> 5. discuss transitions when you obviously don't believe they exist
> (more arguments over inconsequentials);
> 6. counter-claim old claims (aka correcting what he would call your
> bad context);
> 7. argue models (he has already questioned EZNEC's capacity in some
> form - you will only tread that old ground once again);
> 8. fight over "missing" portions of the antenna - Cecil can prove he
> never "exactly" said it did!;
> 9. ... and more through finer parsing than found here (and it is
> guaranteed to be found, that has been amply demonstrated when you feed
> the troll).
>
> Those exchanges are like watching someone chase the clown in a
> revolving door with discarded lines of attack flying out like grass
> clippings from a lawn mower.
>
> Cecil has never been able to hold his ground to one point when I've
> drilled down instead of following the outrageous. No one want to
> abandon the only true content, the comedy; but, really, the knots of
> argument are far more deterministic than the technical issue
> supposedly being discussed.
>
> 73's
> Richard Clark, KB7QHC

Richard,

I gave up on this thread a couple of weeks ago, largely because it had drifted. However, it came right back to the original topic when the velocity-factor-based 45 degree replacement item came up. Cecil and his friends now deny they ever said anything about coils replacing the "degrees" of missing wire, but they keep coming back to the same position again and again.

73,
Gene
W4SZ

1245. EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 17:51:02 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <uthf42t7i6if0ml1k9g65i3832cdc41vmu@4ax.com>
Source record: 60737

Showing my ignorance (or perhaps deteriorating intellect?) again:

I am attempting to compare the gain of a full size (1/4 wave) vertical
to various shorter verticals at 160 meters.

I am looking at the gain in dbi on the 2D plot. I see 1.39 dbi for the
full 1/4 wave and I see 1.52 dbi for the 28 foot version.

I don't believe the shorter antenna has less gain. Where am I going
wrong?
de W8CCW
John Ferrell W8CCW

1246. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 17:53:32 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <wUP1g.61984$F_3.29098@newssvr29.news.prodigy.net>
Source record: 60738

"Gene Fuller" <W4SZzzzzzz@att.net> wrote:
> I am simply asking how the function changes between the
> "known" limits of 1.0 and <0.02. You have repeatedly ducked any sort of
> answer.

On the contrary, I just posted the answer for the third time. The
Y-axis answers your question. Hold the diameter/lamda ratio
constant and vary the turns/lamda to answer your question.
Do I have to plot zero turns/lamda for you?
--
73, Cecil, W5DXP

1247. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 17:59:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ihif42lbmfkcmom7ec24gspklt8h9cie4p@4ax.com>
Source record: 60739

On Thu, 20 Apr 2006 17:51:02 GMT, John Ferrell
<johnferrell@sprintmail.com> wrote:

>I am looking at the gain in dbi on the 2D plot. I see 1.39 dbi for the
>full 1/4 wave and I see 1.52 dbi for the 28 foot version.
>
>I don't believe the shorter antenna has less gain. Where am I going
>wrong?

Hi John,

Well, at a minumum, your statements conflict from one paragraph to the
next. That is one indication of something wrong even before we
consider the numbers.

Unravelling that knot, and taking only the first paragraph, yes that
looks wrong (in comparison) too. On the third hand, even if it were
true 0.13dB is something you will never measure accurately in your
lifetime. Even more, you would never perceive it.

Your question should be more of the nature, "how did I misread the
results?" to which we could respond to the tenor of your opening
statement:
>Showing my ignorance (or perhaps deteriorating intellect?) again

Perhaps if you were to explain how you got here instead (the problem)
of what you found (the symptom).

73's
Richard Clark, KB7QHC

1248. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 18:03:03 UTC
From: Morris <Sherins@bellsouth.net>
Message-ID: <1145556183.011381.171380@z34g2000cwc.googlegroups.com>
Source record: 60740
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Skirt Chaser,

So convinced of your position, you didn't post with a real name. One thing we all can agree on: The ARRL did not hide its political position.

I want to go on record as embracing the ARRL's move, a reason that I just may join after all these years. I guess I first need to identify myself as "normal" heterosexual, although sexual identity ought not be relevant to one's standing or reputation in life.

The terms of conduct you use are appalling, homphobic imaginationl. How can youi pre-suppose what two consenting adults do privately? Do we pre-suppose what heterosexuals do? Of course not, realizing sexuality is unique.

The only act that is obviuos becomes so by the birth of children, otherwise sexuality is a private matter. And on what basis do you connect children with homosexuality, which abuses pale in comparison to heterosexual abuses with children.

A compelling example, by no means alone, is the recent spate of female teacher abuses of male minors. To draw the example further, the reality of this teacher abuse by no means speaks for female teachers in general, any more than homosexuality equates to abuse of children.

Your post, to me, seems so rife with homophobia and prejudice that you seem mentally unbalanced. Of course, I could be wrong and I could be the unbalanced one. In any case, I wish you well and hope you will begin to feel the integrity of your words suffcient that you identify your posts by real name and call.

Bob Sherin, W4ASX

1249. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 18:11:10 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g5jf42lk8oimdnhskipmet902891d51jlb@4ax.com>
Source record: 60741

On Thu, 20 Apr 2006 17:46:01 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

>I gave up on this thread a couple of weeks ago, largely because it had
>drifted. However, it came right back to the original topic when the
>velocity-factor-based 45 degree replacement item came up. Cecil and his
>friends now deny they ever said anything about coils replacing the
>"degrees" of missing wire, but they keep coming back to the same
>position again and again.

Hi Gene,

Well, you will never find a definitive quote to pin to Cecil that the
45 degrees is replaced by a coil. That ain't gonna happen. Cecil
doesn't need to say it when so many are ready to interpret this from
his crafted comments which lead to no other conclusion.

As for Vf, you can argue that 'till you are blue in the face, but
given a 59% slop factor that Cecil embraces, any of his computations
can transform gold into lead.

So, the comedy is the only thing left, and it comes like a wildcat
gusher if you simply drill down - on one point - and he is left
claiming the most absurd things that are self-negating (you don't even
have to argue the point it gets so funny). It doesn't take very long
either.

73's
Richard Clark, KB7QHC

1250. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 18:21:19 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-FD528A.11211920042006@newsclstr02.news.prodigy.com>
Source record: 60742
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb

In article <1145556183.011381.171380@z34g2000cwc.googlegroups.com>,
"Morris" <Sherins@bellsouth.net> wrote:

> Skirt Chaser,

< Snip >

Please drop rec.radio.shortwave from this thread.

Thanks.

--
Telamon
Ventura, California

1251. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 18:23:34 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <GkQ1g.61995$F_3.53954@newssvr29.news.prodigy.net>
Source record: 60743

"John Ferrell" <johnferrell@sprintmail.com> wrote:
>
> I am attempting to compare the gain of a full size (1/4 wave) vertical
> to various shorter verticals at 160 meters.
>
> I am looking at the gain in dbi on the 2D plot. I see 1.39 dbi for the
> full 1/4 wave and I see 1.52 dbi for the 28 foot version.
>
> I don't believe the shorter antenna has less gain. Where am I going
> wrong?

Take a look at the phase angle between the feedpoint voltage
and the feedpoint current for the 28 foot version and try to
figure out an efficient matching network. That phase angle
is ~89.95 degrees. The feedpoint voltage is 1400 volts for
only 1.2 watts input. The feedpoint impedance is about
1.2-j1400 ohms.

Try using the helix feature to install a loading coil in the center
of the 28 foot antenna. The gain will drop as expected but the
feedpoint impedance will be easier to match.
--
73, Cecil, W5DXP

1252. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 18:26:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c6kf42dudi9q68uscvqgsjbk8p499ca278@4ax.com>
Source record: 60745

On Thu, 20 Apr 2006 17:45:39 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:

>> How does the Vf transition to 0.02 for a resonant coil
>> occur? That transition is most certainly NOT shown in Fig. 1.
>
>Of course it is shown. Draw a vertical line at 10^-3.
>The 10k turns per lamda coil
That is for coil A
>has a VF of 0.07.

>The 50 turns per lamda
That is for coil B
>has a VF of 0.86.
Well, in fact it does not (and nothing shown on the graph along that
ordinal line does).

Do we now hear the pity card played about poor eyesight? Or the pity
card played about poor computational skills (ï¿½59%)? Or the pity card
played for the confusion of old age when two coils are substituted in
the old shell game?

1253. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 18:28:33 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <gkjf429rlnb7qoq1l5va1bh1bpqmnuria1@4ax.com>
Source record: 60744

Oops! Thanks for the quick response!
That should have read "I can't believe the shorter antenna has MORE gain". I am not normally troubled by such small differences in db's but for that small of a gain difference and that large of a physical difference (104 feet!) I am certain I have missed more than a decimal point.

The tone of the message was intended as apologetic. I really hate to bring dumb questions here to the experts but other than my books and the Internet I have no where else to go with them. I also hate to take the dumb questions to Roy directly for fear I will wear out my welcome with him.

On Thu, 20 Apr 2006 10:59:22 -0700, Richard Clark <kb7qhc@comcast.net> wrote:

>On Thu, 20 Apr 2006 17:51:02 GMT, John Ferrell
><johnferrell@sprintmail.com> wrote:
>
>>I am looking at the gain in dbi on the 2D plot. I see 1.39 dbi for the
>>full 1/4 wave and I see 1.52 dbi for the 28 foot version.
>>
>>I don't believe the shorter antenna has less gain. Where am I going
>>wrong?
>
>Hi John,
>
>Well, at a minumum, your statements conflict from one paragraph to the
>next. That is one indication of something wrong even before we
>consider the numbers.
>
>Unravelling that knot, and taking only the first paragraph, yes that
>looks wrong (in comparison) too. On the third hand, even if it were
>true 0.13dB is something you will never measure accurately in your
>lifetime. Even more, you would never perceive it.
>
>Your question should be more of the nature, "how did I misread the
>results?" to which we could respond to the tenor of your opening
>statement:
>>Showing my ignorance (or perhaps deteriorating intellect?) again
>
>Perhaps if you were to explain how you got here instead (the problem)
>of what you found (the symptom).
>
>73's

>Richard Clark, KB7QHC
John Ferrell W8CCW

1254. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 18:46:09 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <RFQ1g.62005$F_3.20542@newssvr29.news.prodigy.net>
Source record: 60746

"Richard Clark" <kb7qhc@comcast.net> wrote:

> w5dxp wrote:
> >Of course it is shown. Draw a vertical line at 10^-3.
> >The 10k turns per lamda coil
> That is for coil A
> >has a VF of 0.07.
>
> >The 50 turns per lamda
> That is for coil B
> >has a VF of 0.86.
> Well, in fact it does not (and nothing shown on the graph along that
> ordinal line does).

What happened should be obvious. I correctly used the 10^-3
vertical line for the first one and accidentally used the 0.01 vertical
line for the second one.

The first observation is OK. The second should be changed to
500 turns per lamda with a VF of 0.96.

The same principle still applies. As the turns/lamda increases,
the VF decreases while keeping the diameter and frequency
the same.
--
73, Cecil, W5DXP

1255. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 18:51:41 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1145559101.270723.264110@i40g2000cwc.googlegroups.com>
Source record: 60747
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Morris wrote:
> Skirt Chaser,
>
> So convinced of your position, you didn't post with a real name. One
> thing we all can agree on: The ARRL did not hide its political
> position.
>
> I want to go on record as embracing the ARRL's move, a reason that I
> just may join after all these years. I guess I first need to identify
> myself as "normal" heterosexual, although sexual identity ought not be
> relevant to one's standing or reputation in life.

a good set of reasoning if one thinks the ARRL tok it out of principle
instead calulation of the chances andcosts of a fight

Sir I would never suggest insulting oneself by your self "normal"
>
> The terms of conduct you use are appalling, homphobic imaginationl.
> How can youi pre-suppose what two consenting adults do privately? Do
> we pre-suppose what heterosexuals do? Of course not, realizing
> sexuality is unique.
>
> The only act that is obviuos becomes so by the birth of children,
> otherwise sexuality is a private matter. And on what basis do you
> connect children with homosexuality, which abuses pale in comparison to
> heterosexual abuses with children.
>
> A compelling example, by no means alone, is the recent spate of female
> teacher abuses of male minors. To draw the example further, the
> reality of this teacher abuse by no means speaks for female teachers in
> general, any more than homosexuality equates to abuse of children.
>
> Your post, to me, seems so rife with homophobia and prejudice that you
> seem mentally unbalanced. Of course, I could be wrong and I could be
> the unbalanced one. In any case, I wish you well and hope you will
> begin to feel the integrity of your words suffcient that you identify
> your posts by real name and call.

>
> Bob Sherin, W4ASX

1256. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 19:01:33 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e28lqd$1bo6$1@f04n12.cac.psu.edu>
Source record: 60748

Tom Ring wrote:
> Tom Donaly wrote:
>
>>> I would prefer a radiator made from half inch PVC filled with a
>>> dilute sodium chloride solution. If you put a valve at the bottom,
>>> it's a snap to adjust resonance.
>>>
>>> tom
>>> K0TAR
>>
>>
>> Have you tried beer?
>> 73,
>> Tom Donaly, KA6RUH
>
> What!!?? That would be a waste of beer. Well, unless it was Budweiser.

Is there a beer called Budweiser now? Hopefully one to replace that old
PeeWaa that was sold under the same name! ;^)

darn stuff could give me a headache and make me queasy after one
can..... ick.

- 73 de Mike KB3EIA -

1257. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 19:06:17 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <jolf425n8imftb3th032tc0oa5if3b4v46@4ax.com>
Source record: 60749

I don't find the Helix feature in my copy of EZNEC+ V4.
I believe I can get the same results by inserting an appropriate load.
It will just be a little more cumbersome.

I was not aware that the feeding of the radiator was affected by the
driving source. My "lab models" require a base inductance to get the
radiator into a range I can feed. I have not been including that in
the models.

I added a base inductor of 100uh(r=3) and got the results you
predicted. The 28 foot radiator is now showing -3.75 dbi gain!
Lesson learned!

The matter of the phase angle and the feed point voltage is currently
over my head, I will study it further.

I am using the TLW program from the Antenna Handbook to determine an
appropriate match. I have not tried to verify those calculations with
a lab project YET!

Once again, thank you for the assistance. I was getting pretty
frustrated...
de W8CCW John

On Thu, 20 Apr 2006 18:23:34 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:

>
>Take a look at the phase angle between the feedpoint voltage
>and the feedpoint current for the 28 foot version and try to
>figure out an efficient matching network. That phase angle
>is ~89.95 degrees. The feedpoint voltage is 1400 volts for
>only 1.2 watts input. The feedpoint impedance is about
>1.2-j1400 ohms.
>
>Try using the helix feature to install a loading coil in the center
>of the 28 foot antenna. The gain will drop as expected but the
>feedpoint impedance will be easier to match.
John Ferrell W8CCW

1258. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 19:14:01 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <mcnf42lntiqh43apo950pje94t95etifm5@4ax.com>
Source record: 60750

Correction: the base inductor was 75uh
On Thu, 20 Apr 2006 19:06:17 GMT, John Ferrell
<johnferrell@sprintmail.com> wrote:

>I don't find the Helix feature in my copy of EZNEC+ V4.
>I believe I can get the same results by inserting an appropriate load.
>It will just be a little more cumbersome.
>
>I was not aware that the feeding of the radiator was affected by the
>driving source. My "lab models" require a base inductance to get the
>radiator into a range I can feed. I have not been including that in
>the models.
>
>I added a base inductor of 100uh(r=3) and got the results you
>predicted. The 28 foot radiator is now showing -3.75 dbi gain!
>Lesson learned!
>
>The matter of the phase angle and the feed point voltage is currently
>over my head, I will study it further.
>
>I am using the TLW program from the Antenna Handbook to determine an
>appropriate match. I have not tried to verify those calculations with
>a lab project YET!
>
>Once again, thank you for the assistance. I was getting pretty
>frustrated...
> de W8CCW John
>
>On Thu, 20 Apr 2006 18:23:34 GMT, "Cecil Moore" <mycall@arrl.net>
>wrote:
>
>
>>
>>Take a look at the phase angle between the feedpoint voltage
>>and the feedpoint current for the 28 foot version and try to
>>figure out an efficient matching network. That phase angle
>>is ~89.95 degrees. The feedpoint voltage is 1400 volts for
>>only 1.2 watts input. The feedpoint impedance is about
>>1.2-j1400 ohms.
>>
>>Try using the helix feature to install a loading coil in the center
>>of the 28 foot antenna. The gain will drop as expected but the
>>feedpoint impedance will be easier to match.
>John Ferrell W8CCW

John Ferrell W8CCW

1259. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 19:22:17 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <JbR1g.62010$F_3.14225@newssvr29.news.prodigy.net>
Source record: 60751

"John Ferrell" <johnferrell@sprintmail.com> wrote:
> I don't find the Helix feature in my copy of EZNEC+ V4.
> I believe I can get the same results by inserting an appropriate load.
> It will just be a little more cumbersome.

The helix feature is found under the Wires window under the create
menu. But it is somewhat complicated. A lumped inductance load
will get you started.

The problem with feeding an impedance of 1.2-j1400 ohms is
getting power into the antenna without dissipating most of it
in the matching network.
--
73, Cecil, W5DXP

1260. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 19:23:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bjnf42h27mgse74ugme38asugs0cnrs9rg@4ax.com>
Source record: 60752

On Thu, 20 Apr 2006 18:46:09 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:

>What happened should be obvious.

You played the pity card. It was so obvious that I forecast that
immediately.

>The second should be changed to 500 turns per lamda with a VF of 0.96.

Only 1000% off on the turns count - not bad for the first step in a
reading comprehension test. Further interpretations suffer equally.

1261. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 19:28:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f1of4218u69v3imi1tsfgcmm9hrnsok1br@4ax.com>
Source record: 60753

On Thu, 20 Apr 2006 18:28:33 GMT, John Ferrell
<johnferrell@sprintmail.com> wrote:

>Oops! Thanks for the quick response!
>That should have read "I can't believe the shorter antenna has MORE
>gain". I am not normally troubled by such small differences in db's
>but for that small of a gain difference and that large of a physical
>difference (104 feet!) I am certain I have missed more than a decimal
>point.

Hi John,

Well, this still does not tell us how you got here, only that when you
did you immediately stumbled.

Could it be that you inverted the results too? You know, it would
make more sense as an explanation than anything else.

Besides, if you skip the losses, the two will have such similar gain
figures that no one would be surprised by the razor thin margin of
difference.

73's
Richard Clark, KB7QHC

1262. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 19:45:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6eof42hvfpenppqf9pol710t904numbmkd@4ax.com>
Source record: 60754

On Thu, 20 Apr 2006 17:45:39 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:

>> How does the Vf transition to 0.02 for a resonant coil
>> occur? That transition is most certainly NOT shown in Fig. 1.
>
>Of course it is shown. Draw a vertical line at 10^-3.
>The 10k turns per lamda coil
That is for coil A
>has a VF of 0.07.

>The 50 turns per lamda
That is for coil B
>has a VF of 0.86.

Let's review this response for its pity quotient:

Asked: At one length, one coil exhibits
Vf = 0.02,
reduce the coil length, what length for the SAME coil would that be
to render
Vf = 0.2
for instance?

1. We are not changing frequency;
2. we are not changing diameter/lambda
(nor in fact changing diameter OR lambda);
3. we are not changing pitch/lambda
(nor in fact changing pitch OR lambda).

Answer? Change the coil, change the Vf, and the turns/lamda.

********** W R O N G ! **********

Draw another pity card and do not pass go.

1263. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 19:53:58 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <9kpf42t04r1f3bhounukhl3af4l9t3gr4t@4ax.com>
Source record: 60755

On Thu, 20 Apr 2006 19:22:17 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:

>"John Ferrell" <johnferrell@sprintmail.com> wrote:
>> I don't find the Helix feature in my copy of EZNEC+ V4.
>> I believe I can get the same results by inserting an appropriate load.
>> It will just be a little more cumbersome.
>
>The helix feature is found under the Wires window under the create
>menu. But it is somewhat complicated. A lumped inductance load
>will get you started.
>
>The problem with feeding an impedance of 1.2-j1400 ohms is
>getting power into the antenna without dissipating most of it
>in the matching network.

Not to worry. Ground loss will help with that problem.

1264. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 19:56:57 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <dIR1g.62015$F_3.21031@newssvr29.news.prodigy.net>
Source record: 60756

"Richard Clark" <kb7qhc@comcast.net> wrote:
> Asked: At one length, one coil exhibits Vf = 0.02,
> reduce the coil length, what length for the SAME coil would that be
> to render Vf = 0.2 for instance?

> 3. we are not changing pitch/lambda

So what is the pitch for one turn?
--
73, Cecil, W5DXP

1265. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 20:01:14 UTC
From: LARC <larc@your.face>
Message-ID: <RRS87833.8F8789@tarrnews.net>
Source record: 60757
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

On Thu, 20 Apr 2006 18:21:19 GMT, Telamon wrote:
> In article <1145556183.011381.171380@z34g2000cwc.googlegroups.com>,
> "Morris" <Sherins@bellsouth.net> wrote:
>
> > Skirt Chaser,
>
> < Snip >
>
> Please drop rec.radio.shortwave from this thread.

Are you afraid someone will find out?

1266. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 20:02:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124fq6khvpot526@corp.supernews.com>
Source record: 60758

If there's no conductor loss in a model, and no ground loss from a ground system (which can be simulated with a MININEC type ground), the gain of an infinitesimally short vertical should be about 0.45 dB less than for a quarter wave vertical. The gains for intermediate lengths should fall between. The gain difference is caused by the change in current distribution as the antenna length changes, which in turn causes a slight change in the pattern shape.

If you're seeing a report of higher gain from the shorter antenna, something's wrong. Do an Average Gain test to make sure there are no numerical problems, and also check the segmentation to make sure it's reasonable. And, of course, make sure that the length is the only difference between the models.

Roy Lewallen, W7EL

John Ferrell wrote:
> Showing my ignorance (or perhaps deteriorating intellect?) again:
>
> I am attempting to compare the gain of a full size (1/4 wave) vertical
> to various shorter verticals at 160 meters.
>
> I am looking at the gain in dbi on the 2D plot. I see 1.39 dbi for the
> full 1/4 wave and I see 1.52 dbi for the 28 foot version.
>
> I don't believe the shorter antenna has less gain. Where am I going
> wrong?
> de W8CCW
> John Ferrell W8CCW

1267. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 20:12:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124fqp52got4bf5@corp.supernews.com>
Source record: 60759

John Ferrell wrote:
> I don't find the Helix feature in my copy of EZNEC+ V4.

You'll find it in the EZNEC manual index under "Helix Creation".
(There's lots of other good information in the manual, too.)

> I believe I can get the same results by inserting an appropriate load.
> It will just be a little more cumbersome.

It'll be less cumbersome, but you probably won't get the same results.
The amount difference will depend on the geometry of the helix. However,
a lumped load is adequate to illustrate the phenomena you're investigating.

> I was not aware that the feeding of the radiator was affected by the
> driving source. My "lab models" require a base inductance to get the
> radiator into a range I can feed. I have not been including that in
> the models.
>
> I added a base inductor of 100uh(r=3) and got the results you
> predicted. The 28 foot radiator is now showing -3.75 dbi gain!
> Lesson learned!

The loss is due solely to the inductor's resistance -- you'll get the
same result by replacing the inductor with a 3 ohm resistor. The amount
of gain reduction due to the inductor will get worse and worse as the
antenna gets shorter and shorter, for two reasons. The first is that the
antenna's radiation resistance drops as it gets shorter, so the inductor
loss becomes a greater fraction of the total feedpoint resistance. The
second is that you need a larger inductor for a shorter antenna and,
assuming a constant Q, that means more inductor resistance.

> . . .

Roy Lewallen, W7EL

1268. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 20:15:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4opf429805m5p7d5njceoeln4c4o8l892v@4ax.com>
Source record: 60760

On Thu, 20 Apr 2006 12:45:15 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>Asked: At one length, one coil exhibits
> Vf = 0.02,
>reduce the coil length, what length for the SAME coil would that be
>to render
> Vf = 0.2
>for instance?

Well, let's help Cecil navigate this with his MENSA walker.

First, myopic translations of SAME coil are bound to confuse him into thinking that this means the coil was never shortened. We'll put a bullet into that suffering idea right now - the coil is shorter.

Investigating Fig. 1 reveals there is no way to resolve the Vf through shortening a coil. Only Cecil could argue there's a pony in all that horseshit, so while he's saddling himself to that mound, let's proceed to see why his dotaged enthusiasm is ill-founded.

Fig. 1 is based upon the formula (32). Nowhere in that formula is there a turns. Turns may be found, but the specification, s, is for pitch. Pitch for any coil remains the same irrespective of its length. Frequency does not change, diameter does not change; it then follows that Vf does not change when a coil is shortened.

So, the short answer that eludes Cecil is that the question above (or its variants) has no other answer than the one value already provided. By reductio ad absurdum, any kink in a wire that describes an arc of a helix with a large D for a small s; and Cecil would impose his curious theory's delay based on his poor reading skills on Corumï¿½.

73's
Richard Clark, KB7QHC

1269. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 20:24:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o3rf42tjij966g50r4egug20o7j14nuaro@4ax.com>
Source record: 60761

On Thu, 20 Apr 2006 19:56:57 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:
>So what is the pitch for one turn?

The same when there were n turns. It doesn't change with length.

When can we take the training wheels off your computer?

1270. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 20:39:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <25sf42tf6bveh3b5up6r65fes682m4fu9u@4ax.com>
Source record: 60762

On Thu, 20 Apr 2006 19:56:57 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:

>
>"Richard Clark" <kb7qhc@comcast.net> wrote:
>> Asked: At one length, one coil exhibits Vf = 0.02,
>> reduce the coil length, what length for the SAME coil would that be
>> to render Vf = 0.2 for instance?
>
>> 3. we are not changing pitch/lambda
>
>So what is the pitch for one turn?

Turning aside what is obvious (that having been answered separately);
we can observe that one coil of a fixed pitch (it seems to bear
repeating for Cecil) does not exhibit a Vf increase from 0.02 to 0.2
by cutting the coil down to one turn. Cecil needs to accomplish what
is doable instead of turning to radical solutions that fail early.

1271. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 20:53:08 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <UwS1g.12873$4L1.6970@newssvr11.news.prodigy.com>
Source record: 60763

"Richard Clark" <kb7qhc@comcast.net> wrote:
> Pitch for any coil remains the same irrespective of its
> length. Frequency does not change, diameter does not change; it then
> follows that Vf does not change when a coil is shortened.

Gee, I wish I had said that. Now you can argue with Gene. :-)
--
73, Cecil, W5DXP

1272. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 20:56:37 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <9AS1g.12875$4L1.9069@newssvr11.news.prodigy.com>
Source record: 60764

"Richard Clark" <kb7qhc@comcast.net> wrote:
> Turning aside what is obvious (that having been answered separately);
> we can observe that one coil of a fixed pitch (it seems to bear
> repeating for Cecil) does not exhibit a Vf increase from 0.02 to 0.2
> by cutting the coil down to one turn. Cecil needs to accomplish what
> is doable instead of turning to radical solutions that fail early.

This is really strange. You are agreeing with what I have been saying
so your argument is with Gene, not me.

What I have said is that as the pitch is decreased the VF increases
and vice versa.
--
73, Cecil, W5DXP

1273. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 21:06:12 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-A7F7EE.14061220042006@newsclstr02.news.prodigy.com>
Source record: 60765
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb

In article <RRS87833.8F8789@tarrnews.net>, LARC <larc@your.face> wrote:

> On Thu, 20 Apr 2006 18:21:19 GMT, Telamon wrote:
> > In article <1145556183.011381.171380@z34g2000cwc.googlegroups.com>,
> > "Morris" <Sherins@bellsouth.net> wrote:
> >
> > > Skirt Chaser,
> >
> > < Snip >
> >
> > Please drop rec.radio.shortwave from this thread.
>
> Are you afraid someone will find out?

It's an off topic flame thread.

Please drop rec.radio.shortwave from this thread.

Thanks.

--
Telamon
Ventura, California

1274. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 21:08:14 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <2LS1g.70214$Jd.36887@newssvr25.news.prodigy.net>
Source record: 60766
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On Wed, 19 Apr 2006 20:54:39 GMT, Skirt Chaser <my.em@il.dont.work>
> wrote:
>
>
>>ARRL threw principle out the window when they caved in to the demands of
>>the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
>>I opened my beloved QST magazine and there on the pages were photos of
>>queers on a Tropical DXpedition, and in living color no less. The ARRL
>>wanted us to embrace a sick perverted lifestyle and be one big happy
>>family. To me, it was the spark that signaled the death of a once proud
>>organization, and it turned liberal.
>>
>>Now the queers have all but taken over, they're like the military wing of
>>the Democratic party, and always in your face. It's not even safe to take
>>your kids to Easter egg hunts anymore. I know you're all going to disagree
>>with me, but a man touching and sucking on another man's cock and fucking
>>his ass just ain't right. The ARRL promoted this, now look what happened
>>to our radio groups.
>>
>>SC
>
>
> I know a gay couple and they are not in your face. In fact... oddly
> enough they don't support gay marriage or all the other liberal
> nonsense. They are quite conservative. They also don't claim they have
> some bullshit scientific right to do what they do. It is only the
> retarded flakes like HIV-Markytard that ruin it for the rest of them.

At least being homosexual keeps them away from the farm animals. Do
y'all have a branch of the Log Cabin Club out there, Fred?
73,
Tom Donaly, KA6RUH

1275. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 21:11:20 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060420172451.124$ak@newsreader.com>
Source record: 60769
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"AC7PN" <brunius@rockisland.com> wrote:
> Watching two men holding hands and kissing gives me the creeps less
> than your intolerant letter. What two men do out of my sight doesn't
> bother me at all. Skirt Chaser should do us all a favor and practice
> his intollerance in the privacy of his own home.
>
> Bob AC7PN
>
Skirt Chaser also posts as 'Slow Code' with his sock puppet.

1276. Re: Antennas (?) on military planes

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 21:12:41 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4447f94a$0$1012$39cecf19@news.twtelecom.net>
Source record: 60767

Tom Ring wrote:

>
> I have long wondered about the thing that looks like an antenna above
> the pilot's seat on the plexiglass of fighter planes.
>
> I was going to say what type of antenna structure it might be, but I
> know that I don't have a clue.
>
> Anyone here know that is allowed to talk about it?
>
> tom
> K0TAR

I found an example. This is not a picture of the real plane, but is a
drawing of an F35 JSF canopy.

http://files.turbosquid.com/Preview/Content_on_2_5_2004_08_13_46/F35C08.jpg43721b76-6b00-45b6-bc84-7a346dd3cd43Large.jpg

tom
K0TAR

1277. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 21:16:48 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <4447f979_2@newsfeed.slurp.net>
Source record: 60768

"John Ferrell" wrote
> I am attempting to compare the gain of a full size (1/4 wave) vertical
> to various shorter verticals at 160 meters.
>
> I am looking at the gain in dbi on the 2D plot. I see 1.39 dbi for the
> full 1/4 wave and I see 1.52 dbi for the 28 foot version.
>
> I don't believe the shorter antenna has less gain. Where am I going
> wrong?

Assuming that your vertical is ground-mounted, getting the "right answer" for this question depends on the quality of your wire models, and especially your assumptions about the ground plane, and the way your vertical connects to it.

A classic 1/4-wave vertical monopole working against a very good radial ground system such as used in AM broadcast should produce a peak gain of around 5 dBi. The theoretical max for such a system with perfect conditions is 5.15 dBi.

Electrically short(er), base-insulated vertical monopoles, for a given frequency, have lower radiation resistance at the feedpoint near the tower base. So, given the same r-f resistance in the path to the ground plane, the radiation efficiency of the shorter system will drop.

RF

1278. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 21:28:14 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <124fv7ddu44pca6@corp.supernews.com>
Source record: 60770
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Skirt Chaser" <my.em@il.dont.work> wrote in message
news:jsx1g.131$Vn.21@newsread4.news.pas.earthlink.net...
>
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less.

No doubt it was n8wwm and kb9rqz, but what does this have to do with
rec.radio.cb?
Quit crossposting.

>The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
>

So quit supporting the ARRL and encourage others to do the same.

> Now the queers have all but taken over, they're like the military wing of
> the Democratic party, and always in your face.

So you are claiming the majority of hams are gay? I'm sure there are many
that would disagree with your obvious troll post.

>It's not even safe to take
> your kids to Easter egg hunts anymore. I know you're all going to disagree
> with me, but a man touching and sucking on another man's cock and fucking
> his ass just ain't right.

I agree, and go a step further by saying that it is not right for you to be
this graphic about it.
It makes me wonder what you sit around thinking of all day long.

> The ARRL promoted this, now look what happened
> to our radio groups.

And you are promoting it with your crossposting of this graphic troll trash.

1279. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 21:38:13 UTC
From: Dave <noone@nowhere.com>
Message-ID: <o-KdnTn6F5fWYtrZ4p2dnA@crocker.com>
Source record: 60771

<w8ji@akorn.net> wrote in message
news:1145535494.518180.112020@v46g2000cwv.googlegroups.com...
>
> Dave wrote:
>> finally someone said something that makes sense in this thread... but no
>> one
>> has addressed my original question directly... but i guess that is par
>> for
>> the course in here when this group gets wound up, everyone goes off on
>> their
>> own little tangent and starts attacking each other.
>
> I tried to, but I see it did no good at all.
>
> I have a Force 12 80 and 40 meter linear loaded Yagi.
>
> The Q of the loading sections are terrible. They are thin aluminum wire
> of some sort of alloy that makes them hard.
>
> For the typical reactances produced by that loading system Q (reactance
> over ESR) is well in the sub-100 range.
>
> That's why you can take even a fairly poor loading coil, replace the
> linear loading, and have the same perfromance. Or you can make a good
> coil, like airdux or BW stock with number 12-14 wire, and make the
> antenna work better (IF you can keep it from falling apart in the
> wind).
>
> The results of linear loading depends on where the linear loading is
> installed and how it is constructed, but the general rule is if you
> take the very same size and material conductors and wind a coil it will
> work better.
>
> Now I suppose we can talk about UHF antennas, 1/2 inch copper tubing
> stubs, Cecil's imaginary reflected waves, quote Harrison's book
> collection.....but that's how the Force 12 linear loaded 80 and 40
> meter antennas I have work.
>
> That's why they are laying in a pile with waddled out holes near the
> rivets and all that lossy linear loading wire wrapped up in a ball,
> waiting the be rebuilt into good antennas.
>
> 73 Tom
>

so why would a company like m2 go with linear loading over the much simpler to build coil? and how in the world do you measure the Q of the loading section when it is a large percentage of the size of the element? Does Q even really mean anything in a system that is radiating? Since some of the energy is being radiated along the length of the loading segment i would expect it to look very lossy compared to a small coil.

1280. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 21:44:33 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <124g05vo3ja5bdd@corp.supernews.com>
Source record: 60772
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060420172451.124$ak@newsreader.com...
> "AC7PN" <brunius@rockisland.com> wrote:
>> Watching two men holding hands and kissing gives me the creeps less
>> than your intolerant letter. What two men do out of my sight doesn't
>> bother me at all. Skirt Chaser should do us all a favor and practice
>> his intollerance in the privacy of his own home.
>>
>> Bob AC7PN
>>
> Skirt Chaser also posts as 'Slow Code' with his sock puppet.

Did you notice they both end their posts with SC?

1281. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 21:48:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <840g42p0l560l75nmq0nahpuch1j97j3ok@4ax.com>
Source record: 60773

On Thu, 20 Apr 2006 20:56:37 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:

>"Richard Clark" <kb7qhc@comcast.net> wrote:
>> Turning aside what is obvious (that having been answered separately);
>> we can observe that one coil of a fixed pitch (it seems to bear
>> repeating for Cecil) does not exhibit a Vf increase from 0.02 to 0.2
>> by cutting the coil down to one turn. Cecil needs to accomplish what
>> is doable instead of turning to radical solutions that fail early.
>
>This is really strange.

That you haven't answered the question? No, not strange at all.

1282. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 21:53:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ij0g421h1cfh6q4kfqu1ilrcogddktm3pc@4ax.com>
Source record: 60774

On Thu, 20 Apr 2006 20:53:08 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:

>
>"Richard Clark" <kb7qhc@comcast.net> wrote:
>> Pitch for any coil remains the same irrespective of its
>> length. Frequency does not change, diameter does not change; it then
>> follows that Vf does not change when a coil is shortened.
>
>Gee, I wish I had said that. Now you can argue with Gene. :-)

So you didn't say it? You seem to have difficulty expressing concepts
then, don't you? I bet you can't even restate what you THINK has been
said to say it yourself.

No point in waiting, because I won that bet already.

1283. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 21:58:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tn0g429oa5869b1lfb0qqfnup1ktlmrp26@4ax.com>
Source record: 60775

On Thu, 20 Apr 2006 21:38:13 -0000, "Dave" <noone@nowhere.com> wrote:
>so why would a company like m2 go with linear loading over the much simpler
>to build coil?

There's no point in explaining market positioning in technical terms,
because they often contradict each other. In other words, the profit
motive does not have to make sense.

>and how in the world do you measure the Q of the loading
>section when it is a large percentage of the size of the element?

Why would that be difficult?

>Does Q
>even really mean anything in a system that is radiating?

It does if you want to use it in a trap.

>Since some of the
>energy is being radiated along the length of the loading segment i would
>expect it to look very lossy compared to a small coil.

Good point. The only real issue at hand is Iï¿½ ï¿½ Ohmic Loss

73's
Richard Clark, KB7QHC

1284. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 22:05:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <j21g42177bmusouul5nlar4lrfi5hl2s4o@4ax.com>
Source record: 60626

On Thu, 20 Apr 2006 20:56:37 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:

>"Richard Clark" <kb7qhc@comcast.net> wrote:
>> Turning aside what is obvious (that having been answered separately);
>> we can observe that one coil of a fixed pitch (it seems to bear
>> repeating for Cecil) does not exhibit a Vf increase from 0.02 to 0.2
>> by cutting the coil down to one turn. Cecil needs to accomplish what
>> is doable instead of turning to radical solutions that fail early.

>What I have said is that as the pitch is decreased the VF increases
>and vice versa.

You can't change the Vf by shortening a Vf = 0.02 coil, hmmm?
Remarkable shortening of your own theory there.

Perhaps you might want to try again using real numbers. Simply
because you play the pity card of forgetfulness (blaming your reader
usually as a bluff) we will reprise the question once again:

Asked: At one length, one coil exhibits
Vf = 0.02,
reduce the coil length, what length for the SAME coil would that be
to render
Vf = 0.2
for instance?

1. We are not changing frequency;
2. we are not changing diameter/lambda
(nor in fact changing diameter OR lambda);
3. we are not changing pitch/lambda
(nor in fact changing pitch OR lambda).

SAME coil means the one being offered, and being shortened - all other
provisos stand

1285. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 22:32:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <KZT1g.73717$dW3.50541@newssvr21.news.prodigy.com>
Source record: 60627

Richard Clark wrote:
> Asked: At one length, one coil exhibits
> Vf = 0.02,
> reduce the coil length, what length for the SAME coil would that be
> to render
> Vf = 0.2
> for instance?

>>"Richard Clark" <kb7qhc@comcast.net> wrote:
>>> Pitch for any coil remains the same irrespective of its
>>> length. Frequency does not change, diameter does not change; it then
>>> follows that Vf does not change when a coil is shortened.

Doesn't your own posting answer your question?
--
73, Cecil http://www.qsl.net/w5dxp

1286. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 22:34:11 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1145572451.676593.324210@t31g2000cwb.googlegroups.com>
Source record: 60628
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Dr.Death wrote:
> "Skirt Chaser" <my.em@il.dont.work> wrote in message
> news:jsx1g.131$Vn.21@newsread4.news.pas.earthlink.net...
> >
> > ARRL threw principle out the window when they caved in to the demands of
> > the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> > I opened my beloved QST magazine and there on the pages were photos of
> > queers on a Tropical DXpedition, and in living color no less.
>
> No doubt it was n8wwm and kb9rqz, but what does this have to do with
> rec.radio.cb?
lying as normal "dr" death I see

but to answer your question the concention with rec.radio.cb is that
the origainl poster posits that ARRL is responible for the near
constand of Homosexaul bashing in Radio Newsgruops such CB and to
another poster in the read Shortwave for that matter.

that the explanation is Bull not with standing is a on topic thread to
extent it sparks a discussion of why do so many people in the Radio
NG's choose to make homosexauly based attacks

as to the real reason why the radios NG has gotten into the gay bash
state they have is someothing of mystery to me, since the ARRL
obviously lacks such power

1287. Skirt Chaser is right the ARRL is responsible for all the homosexual posts.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 22:45:52 UTC
From: Weiner Dog <weinerdog@yahoo.com>
Message-ID: <mo3g42lrpn05bepnb8rdf24skehmammft6@4ax.com>
Source record: 60629
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,alt.food.barbecue,rec.radio.shortwave

They are all fat middle aged guys that will have sex with anyone,
even other guys.
*** Posted via a free Usenet account from http://www.teranews.com ***

1288. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 22:49:08 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060420190239.920$24@newsreader.com>
Source record: 60632

"Bill Turner" <noway@nohow.com> wrote:
> ORIGINAL MESSAGE:
>
> Skirt Chaser wrote:
>
> > ARRL threw principle out the window when they caved in to the demands
> > of the Lambda Amateur Radio Club (LARC).
>
> ********** REPLY SEPARATOR **********
>
> I find it fascinating to see all the personal attacks against Skirt
> Chaser, but not one poster says his conclusions are wrong.
>
I say his bait is working.

1289. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 22:51:54 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060420190526.041$7U@newsreader.com>
Source record: 60633
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"John S." <hjsjms@cs.com> wrote:
>> Really, it's ok if you are. Just accept yourself as you are and
> everything will be fine - eventually.
>
He can't get the taste of used cock out of his mouth.

1290. why not blame those responible for all the gay poster the folks that have no better arguement to make than to claim (correctly or not)the person they are responding or attacking is gay

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 22:57:18 UTC
From: an old freid to some a nightmare to steve <kb9rqz__ars@hotmail.com>
Message-ID: <1145573838.748742.122720@i39g2000cwa.googlegroups.com>
Source record: 60630
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,alt.food.barbecue,rec.radio.shortwave

```
Weiner Dog wrote:
> They are all fat middle aged guys that will have sex with anyone,
> even other guys.
> *** Posted via a free Usenet account from http://www.teranews.com ***

well could the truth be admitted to here
```

1291. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:01:37 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145574097.366004.242460@u72g2000cwu.googlegroups.com>
Source record: 60631

So Dave, have you built a NEC model of the antenna? Do you know that the loading stub really has unequal currents on its two legs? Since that current is fairly close to the element itself, is the net current (the antenna current) on the stub in phase with or out of phase with the element current? What about the efficiency reported by NEC--if you use zero loss conductors versus the loss of the actual aluminum used in the antenna?

>From your description and the picture I found on the m2 website, it seems to me they are using the stub to make the antenna more mechanically robust than they could with no support. Whether it causes poor performance over what could be done with loading coils at the same positions as the stubs attach or not, I don't know, but a NEC simulation should shine some light on that question. You could start with a simple loaded dipole simulation, though that wouldn't tell the whole story.

I do know that it's unfair to completely discount all stubs because people misuse them. Even if people regularly misuse them, it's no reason to discount them: it's reason to learn when they are appropriate and avoid misusing them. Though I don't know about the performance of your particular antenna, I do know that stubs can be very useful in providing reactances and resonators in a variety of applications, and I do know how to analyze situations in which I use them.

Cheers,
Tom

1292. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:06:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124g50j5dikc177@corp.supernews.com>
Source record: 60634

Dave wrote:
>>
> so why would a company like m2 go with linear loading over the much simpler
> to build coil? and how in the world do you measure the Q of the loading
> section when it is a large percentage of the size of the element? Does Q
> even really mean anything in a system that is radiating? Since some of the
> energy is being radiated along the length of the loading segment i would
> expect it to look very lossy compared to a small coil.

One of the many very handy things about superposition is that it allows us to separate the radiating and transmission line properties of a linear loading section, analyze them separately, and add the results(*). So the Q of the linear loading section can be determined from its transmission line properties without radiation being involved. This can then be directly compared to the Q of a non-radiating inductor. As Tom W8JI has pointed out, the comparison is often not very favorable to the linear loaded antenna.

You'd have to ask M2 why they do what they do. I suspect it's because a lot of amateurs don't understand the loss mechanisms involved, so are under the mistaken impression that linear loading is less lossy than a good inductor. And very few amateurs are capable of making even crudely accurate gain measurements or even comparisons so the vast majority would never know which is better. Smart companies give the customers what they want.

(*) This is done by separating the currents on the two conductors into two sets of currents, common mode -- which radiate -- and differential, which don't.

Roy Lewallen, W7EL

1293. blame the real preps that ARRL has enough sins on it card

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:08:54 UTC
From: an old freid to some a nightmare to steve <kb9rqz__ars@hotmail.com>
Message-ID: <1145574534.524848.50660@v46g2000cwv.googlegroups.com>
Source record: 60635
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Steveo wrote:
> "John S." <hjsjms@cs.com> wrote:
> >> Really, it's ok if you are. Just accept yourself as you are and
> > > everything will be fine - eventually.
> > >
> > He can't get the taste of used cock out of his mouth.

you know Steveo if some is Homosexaul why would they need to get such a
taste out of their mouth?

1294. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:10:22 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060420192353.903$Dp@newsreader.com>
Source record: 60639
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote:
>> And you are promoting it with your crossposting of this graphic troll
> trash.
>
He's slow code. He fills his CB with WD 40 when it squeals. <true story>

1295. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:11:20 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060420192451.953$6c@newsreader.com>
Source record: 60640
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote:
> "Steveo" <moparholic@hotmail.com> wrote in message
> > Skirt Chaser also posts as 'Slow Code' with his sock puppet.
>
> Did you notice they both end their posts with SC?
>
I noticed his bait stinks.

1296. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:11:53 UTC
From: Dave <noone@nowhere.com>
Message-ID: <mY6dnU2nprfdiNXZRVn-gQ@crocker.com>
Source record: 60636

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:tn0g429oa5869b1lfb0qqfnup1ktlmrp26@4ax.com...
> On Thu, 20 Apr 2006 21:38:13 -0000, "Dave" <noone@nowhere.com> wrote:
>>so why would a company like m2 go with linear loading over the much
>>simpler
>>to build coil?
>
> There's no point in explaining market positioning in technical terms,
> because they often contradict each other. In other words, the profit
> motive does not have to make sense.

reducing cost is a big part of business also, why produce a more complex and more expensive antenna if you could sell the same performance with a simpler design? after all, hams are generally cheap.

>
>>and how in the world do you measure the Q of the loading
>>section when it is a large percentage of the size of the element?
>
> Why would that be difficult?

where do you connect your probes? and what are you actually measuring? since some of the energy is being radiated in between any two points where you could connect probes or measure currents the thing you are measuring would exhibit a more resistive (read VERY lossy) characteristic than a small coil you would put in the 3" gap that the linear loading segment spans where it connects to the middle of the element. and since the linear loading rods are not that far from the element itself they will couple strongly to the inner part of the element.

>
>>Does Q
>>even really mean anything in a system that is radiating?
>
> It does if you want to use it in a trap.

its not a 'trap' its a loading section, meant to make a slightly shorter than 1/2 wave element resonant. high Q for a trap makes sense, not for a loading section like this. i think if you base the efficacy of the loading capability on some notion of Q it will likely be misleading. a better measure would likely be a field strength comparison.

>
>>Since some of the
>>energy is being radiated along the length of the loading segment i would
>>expect it to look very lossy compared to a small coil.

>
> Good point. The only real issue at hand is I² ² Ohmic Loss

and using relatively large diameter aluminum rod likely has less loss than a wound coil.

>
> 73's
> Richard Clark, KB7QHC

1297. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:16:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124g5i6gm71mo0a@corp.supernews.com>
Source record: 60637

Richard Fry wrote:
> . . .
> A classic 1/4-wave vertical monopole working against a very good radial
> ground system such as used in AM broadcast should produce a peak gain of
> around 5 dBi. The theoretical max for such a system with perfect
> conditions is 5.15 dBi.
> . . .

Unfortunately, "perfect conditions" includes a perfectly conducting ground far beyond the radial field, a luxury neither we nor the broadcasters have. The maximum far field (sky wave) gain of a ground mounted quarter wave vertical over average ground, with a completely lossless ground system, is on the order of 0 dBi, and this occurs at roughly 25 degrees above the horizon (both depending on frequency as well as ground characteristics). See the EZNEC example file Vert1.ez as an illustration. Its MININEC type ground simulates a lossless ground system.

Roy Lewallen, W7EL

1298. Re: blame the real preps that ARRL has enough sins on it card

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:17:56 UTC
From: Weiner Dog <weinerdog@yahoo.com>
Message-ID: <qj5g42tgs78r5nh1r03229n57jtjm08470@4ax.com>
Source record: 60638
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,alt.food.barbecue,rec.radio.shortwave

On 20 Apr 2006 16:08:54 -0700, "an old freid to some a nightmare to
steve" <kb9rqz__ars@hotmail.com> wrote:

>
>Steveo wrote:
>> "John S." <hjsjms@cs.com> wrote:
>> >> Really, it's ok if you are. Just accept yourself as you are and
>> > everything will be fine - eventually.
>> >
>> He can't get the taste of used cock out of his mouth.
>
>you know Steveo if some is Homosexaul why would they need to get such a
>taste out of their mouth?

No, you would know better than anyone. Mr. beer enema
*** Posted via a free Usenet account from http://www.teranews.com ***

1299. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:26:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g56g42pbjmve40rpkitp5qsvmmdv5lifhg@4ax.com>
Source record: 60641

You can't change the Vf by shortening a Vf = 0.02 coil, hmmm?
Remarkable shortening of your own theory there.

Perhaps you might want to try again using real numbers. Simply
because you play the pity card of forgetfulness (blaming your reader
usually as a bluff) we will reprise the question once again:

Asked: At one length, one coil exhibits
Vf = 0.02,
reduce the coil length, what length for the SAME coil would that be
to render
Vf = 0.2
for instance?

1. We are not changing frequency;
2. we are not changing diameter/lambda
(nor in fact changing diameter OR lambda);
3. we are not changing pitch/lambda
(nor in fact changing pitch OR lambda).

SAME coil means the one being offered, and being shortened - all other
provisos stand

1300. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:31:05 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <124g6doa5bjp694@corp.supernews.com>
Source record: 60642
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060420192451.953$6c@newsreader.com...
> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote:
>> "Steveo" <moparholic@hotmail.com> wrote in message
>> > Skirt Chaser also posts as 'Slow Code' with his sock puppet.
>>
>> Did you notice they both end their posts with SC?
>>
> I noticed his bait stinks.

I'm sure that's not all that stinks.

1301. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:31:51 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060420194523.711$I0@newsreader.com>
Source record: 60646
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote:
> "Steveo" <moparholic@hotmail.com> wrote in message
> news:20060420192353.903$Dp@newsreader.com...
> > "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote:
> >> And you are promoting it with your crossposting of this graphic troll
> >> trash.
> >>
> > He's slow code. He fills his CB with WD 40 when it squeals. <true
> > story>
>
> I'll bet that makes for a really quiet radio.
>
I wouldn't try it unless I was really sick of the radio. :)

1302. Re: blame the real preps

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:34:03 UTC
From: an old freid to some a nightmare to steve <kb9rqz__ars@hotmail.com>
Message-ID: <1145576043.317913.144360@z34g2000cwc.googlegroups.com>
Source record: 60643
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,alt.food.barbecue,rec.radio.shortwave

Weiner Dog wrote:
> On 20 Apr 2006 16:08:54 -0700, "an old freid to some a nightmare to
> steve" <kb9rqz__ars@hotmail.com> wrote:
>
> >
> >Steveo wrote:
> >> "John S." <hjsjms@cs.com> wrote:
> >> >> Really, it's ok if you are. Just accept yourself as you are and
> >> > everything will be fine - eventually.
> >> >
> >> He can't get the taste of used cock out of his mouth.
> >
> >you know Steveo if some is Homosexaul why would they need to get such a
> >taste out of their mouth?
>
> No, you would know better than anyone. Mr. beer enema
not better than anyone but yes I know and you by making your post show
who is responible not the ARRL but people like you
> *** Posted via a free Usenet account from http://www.teranews.com ***

1303. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:36:40 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <124g6o7qa2oad2@corp.supernews.com>
Source record: 60644
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060420192353.903$Dp@newsreader.com...
> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote:
>>> And you are promoting it with your crossposting of this graphic troll
>> trash.
>>
> He's slow code. He fills his CB with WD 40 when it squeals. <true story>

I'll bet that makes for a really quiet radio.

1304. Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:42:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <gc2dnfBs3fcigdXZRVnyqQ@bt.com>
Source record: 60645

The antenna gain of a half-wave dipole relative to an isotrope is
1.61.

What are the gains relative to an isotrope of -

A dipole with one reflector.
A dipole with one reflector and one director.
An N-element dipole array like a Yagi.

Only approximate answers are needed.

Thanking you in anticipation.

Reg.

1305. blame the real prep

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:48:37 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1145576917.353421.70770@i40g2000cwc.googlegroups.com>
Source record: 60647
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

```
Dr.Death wrote:
> "Steveo" <moparholic@hotmail.com> wrote in message
> news:20060420192353.903$Dp@newsreader.com...
> > "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote:
> >>> And you are promoting it with your crossposting of this graphic troll
> >> trash.
> >>
> > He's slow code. He fills his CB with WD 40 when it squeals. <true story>
>
> I'll bet that makes for a really quiet radio.

how much you want to bet My money would on some spark and smoke and
flame
```

1306. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:51:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b76g425f80kqdvfblann6mkliqupr5dh6v@4ax.com>
Source record: 60648

On Thu, 20 Apr 2006 23:11:53 -0000, "Dave" <noone@nowhere.com> wrote:

>
>"Richard Clark" <kb7qhc@comcast.net> wrote in message
>news:tn0g429oa5869b1lfb0qqfnup1ktlmrp26@4ax.com...
>> On Thu, 20 Apr 2006 21:38:13 -0000, "Dave" <noone@nowhere.com> wrote:
>>>so why would a company like m2 go with linear loading over the much
>>>simpler
>>>to build coil?
>>
>> There's no point in explaining market positioning in technical terms,
>> because they often contradict each other. In other words, the profit
>> motive does not have to make sense.
>
>reducing cost is a big part of business also, why produce a more complex and
>more expensive antenna if you could sell the same performance with a simpler
>design? after all, hams are generally cheap.

You are confusing a direct correlation between cost and price.
Marketing and demand that rises from marketing determines price, not
cost. Hams pay price which is in excess of cost. This is proven
everyday when they pay for a pre-fab dipole made of two pieces of wire
and three insulators. You don't think they are paying cost for that
alone do you? If so, they would buy two pieces of wire and three
insulators instead.

The profit motive does not have to make sense.

>>>and how in the world do you measure the Q of the loading
>>>section when it is a large percentage of the size of the element?
>>
>> Why would that be difficult?
>
>where do you connect your probes?

At the source where loss counts. There is no way you are going to
measure unloaded Q if that is your goal - it doesn't matter that much
anyway unless it is for a trap.

I haven't come across any distributed load traps unless someone wants
to stretch meaning to include resonant lines. Even then, the same
answer applies.

>and what are you actually measuring?

Q, what else?

>since some of the energy is being radiated in between any two points where
>you could connect probes or measure currents the thing you are measuring
>would exhibit a more resistive (read VERY lossy) characteristic than a small
>coil you would put in the 3" gap that the linear loading segment spans where
>it connects to the middle of the element. and since the linear loading rods
>are not that far from the element itself they will couple strongly to the
>inner part of the element.

Ummm, is this a problem? If you want to measure Q and put it in a
bottle, perhaps it is.

>>>Does Q
>>>even really mean anything in a system that is radiating?
>>
>> It does if you want to use it in a trap.
>
>its not a 'trap' its a loading section, meant to make a slightly shorter
>than 1/2 wave element resonant. high Q for a trap makes sense, not for a
>loading section like this. i think if you base the efficacy of the loading
>capability on some notion of Q it will likely be misleading. a better
>measure would likely be a field strength comparison.

Aside from the difficult language, you are not going to find a
scintilla's worth of difference in what you propose to do with an FSM.
It serves the purpose, easily.

As for Q, you need to distinguish between loaded and unloaded Q. Next,
you need to put a metric on what you mean by "high" Q. This is
because you are probably not going to measure anything higher than 8
to 12 for a "slightly shorter than 1/2 wave" antenna. I would find it
remarkable if the unloaded Q of any load would give you something as
bad as a Q in the 20s or 30s.

>and using relatively large diameter aluminum rod likely has less loss than a
>wound coil.

To say the least, but again, anyone can conspire to fail
magnificently.

73's
Richard Clark, KB7QHC

1307. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:57:00 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060420201032.446$pI@newsreader.com>
Source record: 60650
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote:
> "Steveo" <moparholic@hotmail.com> wrote in message
> > I wouldn't try it unless I was really sick of the radio. :)
>
> I'd try it with someone else's radio. Maybe dogie will let me dunk his
> RCI.
>
Good idea. I hope he posts pics again. lol

1308. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-20 23:59:21 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <124g82nmc33rsc0@corp.supernews.com>
Source record: 60649
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060420194523.711$I0@newsreader.com...
> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote:
>> "Steveo" <moparholic@hotmail.com> wrote in message
>> news:20060420192353.903$Dp@newsreader.com...
>> > "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote:
>> >>> And you are promoting it with your crossposting of this graphic troll
>> >> trash.
>> >>
>> > He's slow code. He fills his CB with WD 40 when it squeals. <true
>> > story>
>>
>> I'll bet that makes for a really quiet radio.
>>
> I wouldn't try it unless I was really sick of the radio. :)

I'd try it with someone else's radio. Maybe dogie will let me dunk his RCI.

1309. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 00:41:12 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <ghag42l0a6mr7o6ihgr69068qo4oj2kj6h@4ax.com>
Source record: 60651

Thank you, I get that!
On Thu, 20 Apr 2006 13:12:20 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>
>The loss is due solely to the inductor's resistance -- you'll get the
>same result by replacing the inductor with a 3 ohm resistor. The amount
>of gain reduction due to the inductor will get worse and worse as the
>antenna gets shorter and shorter, for two reasons. The first is that the
>antenna's radiation resistance drops as it gets shorter, so the inductor
>loss becomes a greater fraction of the total feedpoint resistance. The
>second is that you need a larger inductor for a shorter antenna and,
>assuming a constant Q, that means more inductor resistance.
>
>> . . .
>
>Roy Lewallen, W7EL
John Ferrell W8CCW

1310. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 00:44:20 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <elag425lmuel8egrem03o2kbd809ie27s6@4ax.com>
Source record: 60652

The Vert1 example does illustrate the point well by varying the ground
options.
On Thu, 20 Apr 2006 16:16:21 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Richard Fry wrote:
>> . . .
>> A classic 1/4-wave vertical monopole working against a very good radial
>> ground system such as used in AM broadcast should produce a peak gain of
>> around 5 dBi. The theoretical max for such a system with perfect
>> conditions is 5.15 dBi.
> > . . .
>
>Unfortunately, "perfect conditions" includes a perfectly conducting
>ground far beyond the radial field, a luxury neither we nor the
>broadcasters have. The maximum far field (sky wave) gain of a ground
>mounted quarter wave vertical over average ground, with a completely
>lossless ground system, is on the order of 0 dBi, and this occurs at
>roughly 25 degrees above the horizon (both depending on frequency as
>well as ground characteristics). See the EZNEC example file Vert1.ez as
>an illustration. Its MININEC type ground simulates a lossless ground system.
>
>Roy Lewallen, W7EL
John Ferrell W8CCW

1311. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 00:48:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <WZV1g.4459$Lm5.1882@newssvr12.news.prodigy.com>
Source record: 60653

Richard Clark wrote:
> You can't change the Vf by shortening a Vf = 0.02 coil, hmmm?
> Remarkable shortening of your own theory there.

You appear to have forgotten which side you were arguing
but 1/2 of a turn should increase the VF over one turn.
--
73, Cecil http://www.qsl.net/w5dxp

1312. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 00:49:08 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <7uag42tkoo5863p3jd5447vpj6s9qvqq7o@4ax.com>
Source record: 60654

Found the helix. I will have to puzzle it out. I have a lot to digest.
I am glad I asked the question. The answers turned on a lot lights.

On Thu, 20 Apr 2006 19:22:17 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:

>"John Ferrell" <johnferrell@sprintmail.com> wrote:
>> I don't find the Helix feature in my copy of EZNEC+ V4.
>> I believe I can get the same results by inserting an appropriate load.
>> It will just be a little more cumbersome.
>
>The helix feature is found under the Wires window under the create
>menu. But it is somewhat complicated. A lumped inductance load
>will get you started.
>
>The problem with feeding an impedance of 1.2-j1400 ohms is
>getting power into the antenna without dissipating most of it
>in the matching network.
John Ferrell W8CCW

1313. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 00:59:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5ibg42d5qdkbrbo0b4pgluikl8k7un0qsb@4ax.com>
Source record: 60655

On Fri, 21 Apr 2006 00:48:54 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>> You can't change the Vf by shortening a Vf = 0.02 coil, hmmm?
>> Remarkable shortening of your own theory there.
>
>You appear to have forgotten which side you were arguing
>but 1/2 of a turn should increase the VF over one turn.

You can't change the Vf by shortening a Vf = 0.02 coil, hmmm?
Remarkable shortening of your own theory there.

Perhaps you might want to try again using real numbers. Simply
because you play the pity card of forgetfulness (blaming your reader
usually as a bluff) we will reprise the question once again:

Asked: At one length, one coil exhibits
Vf = 0.02,
reduce the coil length, what length for the SAME coil would that be
to render
Vf = 0.2
for instance?

1. We are not changing frequency;
2. we are not changing diameter/lambda
(nor in fact changing diameter OR lambda);
3. we are not changing pitch/lambda
(nor in fact changing pitch OR lambda).

SAME coil means the one being offered, and being shortened - all other
provisos stand

1314. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 02:08:50 UTC
From: w8ji@akorn.net
Message-ID: <1145585330.540827.302190@e56g2000cwe.googlegroups.com>
Source record: 60656

Dave wrote:
> so why would a company like m2 go with linear loading over the much simpler
> to build coil?

Marketing, marketing, and marketing.

Manufacturers have done an excellent job making everyone think traps are lossy and coils are bad. Some companies sell things significantly worse than what they say is "bad".

One company uses a length of small coaxial line to provide a reactance loading their antenna to 80 meters, even though a piece of doorbell wire on a toilet paper tube would have less series resistance for the same reactance.

Another one markets an antenna they say uses "resonators" instead of "lossy traps", but when you analyze the resonator it is actually just a self-resonant coil used as a trap, and that makes ESR terrible compared to some of the poorest L/C traps we could build.

Linear loading is just another ploy. It lets them say "no lossy coils" when in effect what you have done is stretch a coil into an elongated single turn. When you do that you lose the advantage of mutual coupling aiding in reactance, so you have to increase conductor length to get the same reactance. A longer current path means more resistance. Worse yet, the stub places strong electric fields between two conductors (increases capaciatnce shunting the inductance), and that increases circulating currents that do nothing but heat the stub while decreasing bandwidth.

Linear loading is exactly like doing everything we don't want to do to an inductor...but with one exception. The sole exception is a slight imbalance in currents allows the stub to radiate a little bit, and that radiation has the overall effect of allowing the linear loading to move the effective position of the load insertion to a DIFFERENT location than the place where the element is insulated.

Say we have a 50 foot long element insulated 12.5 feet from the boom on each side. If we added linear loading with the stub extended OUTWARDS from that insulator it would look like we really inserted the loading a bit further out on the element than the point where the element is actually broken with an insulator. That can be an advantage because EFFECTIVE current distribution, the vector sum of current that actually causes radiation from the stub and element combination, would be more uniform over distance. We would effectively have more ampere-feet, and slightly higher radiation resistance.

On the other hand it is just as easy, when we don't understand how the antenna works, to screw up and fold the loading stub inwards from the element insulator and move the effective point where the loading is added closer to the boom.

That's why I say it is a soup of things going on, and the results can be not as bad as other cases. The general rule is, however, anything we can do with a linear loading system we can do better with a coil. Sometimes a little better, sometimes a lot better.

>and how in the world do you measure the Q of the loading
> section when it is a large percentage of the size of the element?

Substitution and measurement of changes in feedpoint and radiation charcteristics, formulas to cross check, and dorect measurements of how the stub itself behaves when balanced.

>Does Q
> even really mean anything in a system that is radiating?

That's why I defined Q as reactance over ESR, and not the less useful measurement of bandwidth. When the series resistance increases for a given reactance, you might as well use the loading system with less series resistance for the same reactance. That would be an inductor of proper form factor.

> Since some of the
> energy is being radiated along the length of the loading segment i would
> expect it to look very lossy compared to a small coil.

....but that radiation does nothing useful, except modify the effective location where the equivalent lumped load is placed. It doesn't magically give you something that would otherwise turn to nothing.

I think the picture in your mind is remotely like the seriously flawed but somewhat popular idea that a folded element has increased efficiency from increased radiation resistance. 100 feet of wire in a 50 foot linear spatial area is still just a 50 foot antenna. All you can do is shuffle the effective current distribution around a bit, you can't make it behave like it is longer than 50 feet, and a coil will do the same thing for shuffling current as a linear loading system.

All of this aside, the only thing that matters is how happy the antenna makes people. Doesn't matter that my dipole beats a linear loaded two element 80 meter Yagi. The yagi impresses people more. My own personal choice is to use a dipole on the air, but to show people visiting that I have a 2 element (linear loaded) Yagi.

73 Tom

1315. Re: Choke Balun Torture

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 02:18:01 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <zf2dnfZ2ZsjKotXZRVn-og@adelphia.com>
Source record: 60657

n3ox.dan@gmail.com wrote:
> I've constructed a choke balun from a big toroidal core I had lying
> around, abt 3.5 inch O.D., 2 inch ID, unknown material, measures about
> 125 ohms pure inductive at 7 MHz with 3 turns on it, so I figured that
> 10 or 12 turns would be an effective 7MHz choke*.
>
> The coax is RG-55 double shielded RG-58 size, solid center conductor,
> solid polyethylene dielectric.

I am assuming that this means that the O.D. is about .2 inch.

> I wound the coax pretty tightly for neatness; each turn is probably
> only 1 inch inner diameter.
>
> Is this too tight? With a 47 ohm resistor in series with the output
> wires (I figure about 0.05 microhenries there, it's a few inches of
> wire), I get what I think are more or less expected results right now.
> I've been playing with one of Reg's programs to see if the impedance at
> the input side of the balun jives with the termination, and I think it
> does, but I can't just go up up up in frequency with the MFJ-259 to see
> if I've affected the *cable* impedance unless I cut off my weather
> sealed, heat shrinked, and Anderson Powerpoled coil tap wires and put
> on a BNC and terminator.
>
> So I wonder about the longevity of the thing. How tight do you coil
> your toroidal choke baluns?

I recently wondered about how such tight turns might affect the
longevity of cable in sunlight, but my concerns were dismissed.

> *Another question, figured I'd put it at the end. What's the
> impedance/length of the 43 material core that fits over RG-58 down at
> 7-10MHz. Amidon and Fair-Rite sites have some spot measurements higher
> up that I've found, but I'm not turning up charts for all of HF.

Fair-Rite has an impedance versus frequency curve for most of their
shield beads.
http://www.fair-rite.com/newfair/pdf/15th_Edition_Fair-Rite_Catalog.pdf#page=1

> I know 43 material is not used so much for low-power HF choke baluns
> because of reduced per-bead impedance, but I got a big box of them for
> free, so it's just stringing effort on my part to make a bead choke for
> 40m.

What are their dimensions?

Size 2643012702 (.38" O.D., .25" I.D., .25"L) has a Z of about 12 ohms at 7 MHz, 15 ohms at 10 MHz.

Size 2643625103 (.625" O.D., .312" I.D., 1.125"L) has a Z of about 80 ohms at 7 MHz, 100 ohms at 10 MHz.

1316. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 02:18:31 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <biX1g.280$rQ5.29@fe12.lga>
Source record: 60658

"Dave" <noone@nowhere.com> wrote in message
news:o-KdnTn6F5fWYtrZ4p2dnA@crocker.com...
>
> <w8ji@akorn.net> wrote in message
> news:1145535494.518180.112020@v46g2000cwv.googlegroups.com...
>>
>> Dave wrote:
>>> finally someone said something that makes sense in this thread... but no
>>> one
>>> has addressed my original question directly... but i guess that is par
>>> for
>>> the course in here when this group gets wound up, everyone goes off on
>>> their
>>> own little tangent and starts attacking each other.
>>
>> I tried to, but I see it did no good at all.
>>
>> I have a Force 12 80 and 40 meter linear loaded Yagi.
>>
>> The Q of the loading sections are terrible. They are thin aluminum wire
>> of some sort of alloy that makes them hard.
>>
>> For the typical reactances produced by that loading system Q (reactance
>> over ESR) is well in the sub-100 range.
>>
>> That's why you can take even a fairly poor loading coil, replace the
>> linear loading, and have the same perfromance. Or you can make a good
>> coil, like airdux or BW stock with number 12-14 wire, and make the
>> antenna work better (IF you can keep it from falling apart in the
>> wind).
>>
>> The results of linear loading depends on where the linear loading is
>> installed and how it is constructed, but the general rule is if you
>> take the very same size and material conductors and wind a coil it will
>> work better.
>>
>> Now I suppose we can talk about UHF antennas, 1/2 inch copper tubing
>> stubs, Cecil's imaginary reflected waves, quote Harrison's book
>> collection.....but that's how the Force 12 linear loaded 80 and 40
>> meter antennas I have work.
>>
>> That's why they are laying in a pile with waddled out holes near the
>> rivets and all that lossy linear loading wire wrapped up in a ball,
>> waiting the be rebuilt into good antennas.

>>
>> 73 Tom
>>
> so why would a company like m2 go with linear loading over the much
> simpler to build coil? and how in the world do you measure the Q of the
> loading section when it is a large percentage of the size of the element?
> Does Q even really mean anything in a system that is radiating? Since
> some of the energy is being radiated along the length of the loading
> segment i would expect it to look very lossy compared to a small coil.
>
>

Dave,

it boils down to the "problem" we were rehashing here - distribution of current along the antenna element. I tried to highlight that, but it gets lost in the "contributions" of the "same current worshippers".
If you would model loaded element with 1. lumped inductance, 2. real solenoid and 3. loading stub - wires folded back onto element, you would see the variations of current distribution along the element and its effect on the design or optimization of multielement Yagi (cancellation in overlaps).

The reason why antenna manufacturers used loading stubs to shorten the elements, was the idea that it would be less loss (it's "just" a wire) and would be more efficient than "some" lossy coil. You hardly find commercial loaded Yagi with coils as a loading element. They all used "nice, efficient" loading wires until W6 - I forgot the call, wasn't happy with performance of his 80m KLM loaded Yagi, replaced the "efficient" loading stubs with good quality coils and found that antenna performed much better. Better gain, better pattern, F/B (Richard can search for that "no good" article in CQ Mag. and query them). Few other hams did it too later and found the same.

This is another proof of difference in performance when considering the proper loading and proper treatment of load in the standing wave (antenna) environment.
The effect gets magnified in multielement arrays and has significant impact on the pattern and F/B. This is why we are arguing about proper treatment of the current distribution along the loaded element. How can it be the same in a coil, when it is demonstratively different in the loading stub (EZNEC shows THAT). When you have "wire" folded on itself three times and affecting currents (cancellation) along them - it gets worse than just current drop along the loading coil. The unbelievers would try to tell you that there can't be drop of current along the coil, much less along the loading stubs (it's just a piece of wire), but if you consider standing wave environment along the antenna element, then it all becomes clear and explains the behavior of various loading elements, current distribution in them and effect on the element and array. So replacing loading stubs with good quality coils WILL improve the performance of loaded Yagi, gain and especially give you better pattern and F/B. The same goes for Beta match at the center of element as used by i.e. Hy-Gain 402BA, replace it with few turns of copper tubing to get 50 ohm match to the coax. Now there is good

fiberglass tubing available that can be used for strong insulators and forms for the loading coils.

Standby for W8JI mumbo-jumbo, bla, bla, bla.... he has to be the last standing "trutz" man! You can verify and decide.

73 Yuri, K3BU

1317. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 02:49:46 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <achg421i55johjpolga4nc6351p5vvc2th@4ax.com>
Source record: 60659

On Thu, 20 Apr 2006 22:18:31 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>Richard can search for that "no good" article in CQ
>Mag. and query them

Hi Yuri,

That's got to be a recommendation! You can't remember the
particulars, you can't remember the name, and I have to carry your
water. You sound like a Washington bureaucrat in the White House -
"Trust me! I'm here to help you with your Social Security." [It will
be made as easy as the new drug benefit.]

Now THERE's a standard of efficiency and performance that has been
"proven." ;-)

73's
Richard Clark, KB7QHC

1318. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 02:58:03 UTC
From: jawod <jawod@fuse.net>
Message-ID: <c0279$44484a5a$453d9423$21162@FUSE.NET>
Source record: 60660

Bill Turner wrote:
> ORIGINAL MESSAGE:
>
> Skirt Chaser wrote:
>
>
>>ARRL threw principle out the window when they caved in to the demands
>>of the Lambda Amateur Radio Club (LARC).
>
>
>
>
> ********** REPLY SEPARATOR **********
>
> I find it fascinating to see all the personal attacks against Skirt
> Chaser, but not one poster says his conclusions are wrong.
>
> Reminds me of some years ago when Dan Quayle attacked Murphy Brown for
> portraying a decadent lifestyle. He got crap from all over the
> spectrum, but not one attacker said his conclusions were wrong either.
>
> Food for thought.
>
> Bill, W6WRT

Bill,

The conclusions ARE wrong. and EVERYONE said Quayle was wrong,
particularly in his spelling.

Live and let live.

And let this newsgroup live in peace, if not harmony.

Time to let this go.

John
AB8WH

1319. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 03:17:51 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <O9Y1g.284$rQ5.162@fe12.lga>
Source record: 60661

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:achg421i55johjpolga4nc6351p5vvc2th@4ax.com...
> On Thu, 20 Apr 2006 22:18:31 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>>Richard can search for that "no good" article in CQ
>>Mag. and query them
>
> Hi Yuri,
>
> That's got to be a recommendation! You can't remember the
> particulars, you can't remember the name, and I have to carry your
> water. You sound like a Washington bureaucrat in the White House -
> "Trust me! I'm here to help you with your Social Security." [It will
> be made as easy as the new drug benefit.]
>
> Now THERE's a standard of efficiency and performance that has been
> "proven." ;-)
>
> 73's
> Richard Clark, KB7QHC

That's right, for me it was enough to remember the results. If you want more info, you can Google it or SeeeKeeew it. You ain't paying me and for free advice this should do it.

If I wanted to get details and build the coils, I would dig for it. For now I have better idea for loaded loop antenna, so it is on the back burner. Now you are mixing Washington in addition to Fractals - not very good picture of your "fakultys" if you have to rely on social security. Any constructive ideas besides filibusters and "Bush- baaad"?

Sayonara!

73 (doesn't need 's - they are included) - if I was nitpicker like you :-)

Yuri, K3BU/m

1320. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 04:57:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0oog42da358ocmjjuk3mg9rs4ha06cuq8u@4ax.com>
Source record: 60662

On Thu, 20 Apr 2006 23:17:51 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>That's right, for me it was enough to remember the results.

Hi Yuri,

Folks remember dreams pretty much in the same way. You wake up
astonished with the revelation, and forget the details before you
throw back the covers.

73's
Richard Clark, KB7QHC

1321. Re: Grounding Bar Length For Receiving Only Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 05:51:34 UTC
From: charlesh3@msn.com
Message-ID: <W-mdnZBZgpR979XZnZ2dnUVZ_uudnZ2d@giganews.com>
Source record: 60663

I disagree about the penetration depth. The depth depnds on frequency and soil characteristics, but at 160 m the "skin depth" (the point where the potential has fallen to 1/e of its original value) would normally fall in the range of 10 - 30 feet.

If you live over a silver mine or the Sahara desert, your mileage will vary.

Chuck

1322. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 06:47:41 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <he%1g.107012$8Q3.29651@fe1.news.blueyonder.co.uk>
Source record: 60664

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:gc2dnfBs3fcigdXZRVnyqQ@bt.com...
> The antenna gain of a half-wave dipole relative to an isotrope is
> 1.61.

2.14 dbi ...Shirley ??.......

Lee......de G6ZSG....

>
> What are the gains relative to an isotrope of -
>
> A dipole with one reflector.
> A dipole with one reflector and one director.
> An N-element dipole array like a Yagi.
>
> Only approximate answers are needed.
>
> Thanking you in anticipation.
> ----
> Reg.
>
>

1323. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 07:35:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <rX%1g.70316$Jd.58011@newssvr25.news.prodigy.net>
Source record: 60665

Gene Fuller wrote:
> You are the expert on Vf. You assert without proof that a half-length
> coil has the same Vf as the full-length resonant coil. OK, even if I
> accepted that supposition, what happens at a quarter-length or at a
> tenth-length? I am simply asking how the function changes between the
> "known" limits of 1.0 and <0.02. You have repeatedly ducked any sort of
> answer.

Seems Richard Clark has proven that it doesn't change between
the "known" limits of 1.0 and <0.02. Where did those "known"
limits come from anyway?

For a single turn coil, seems the VF would roughly be the pitch
divided by the circumference, something that would equal 1.0 only
when the pitch and circumference were equal.

For the 4 TPI, 6" diameter coil, the VF formula yields 0.02.

The pitch divided by the circumference yields 0.013.
--
73, Cecil http://www.qsl.net/w5dxp

1324. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 07:39:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <z_%1g.70318$Jd.20008@newssvr25.news.prodigy.net>
Source record: 60666

Richard Clark wrote:
> You can't change the Vf by shortening a Vf = 0.02 coil, hmmm?
> Remarkable shortening of your own theory there.

It was Gene Fuller who said the coil varied between the "known"
limits of 1.0 and <0.02, not I. I just replied to Gene's posting.
You and I seem to be in agreement that the VF of the coil doesn't
change with a change in length.
--
73, Cecil http://www.qsl.net/w5dxp

1325. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 07:57:33 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <aq3h421ml56fm7k09msuue5fe408hiejhf@4ax.com>
Source record: 60667

On Fri, 21 Apr 2006 06:47:41 GMT, "Lee" <lo012a4519@blueyonder.co.uk>
wrote:

>
>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>news:gc2dnfBs3fcigdXZRVnyqQ@bt.com...
>> The antenna gain of a half-wave dipole relative to an isotrope is
>> 1.61.
>
>2.14 dbi ...Shirley ??.......

The number one commonly sees is 1.64 (which is about 2.14dB)... not
far off 1.61.

Owen
--

1326. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 09:31:38 UTC
From: Jeff <jeff@local.host>
Message-ID: <e2a8nsvfv1@emma.aioe.org>
Source record: 60668

>>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>>news:gc2dnfBs3fcigdXZRVnyqQ@bt.com...
>>> The antenna gain of a half-wave dipole relative to an isotrope is
>>> 1.61.
>>
>>2.14 dbi ...Shirley ??.......
>

Hook line & sinker into Reg's trap.

1.61 linear gain not dB.

73
Jeff

1327. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 09:35:29 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <BH12g.294576$zk4.87091@fe3.news.blueyonder.co.uk>
Source record: 60669

"Jeff" <jeff@local.host> wrote in message news:e2a8nsvfv1@emma.aioe.org...
> >>"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> >>news:gc2dnfBs3fcigdXZRVnyqQ@bt.com...
> >>> The antenna gain of a half-wave dipole relative to an isotrope is
> >>> 1.61.
> >>
> >>2.14 dbi ...Shirley ??.......
> >
>
> Hook line & sinker into Reg's trap.
>
> 1.61 linear gain not dB.

Trap or not , i`m still correct .... ;-)

Lee....de G6ZSG...

>
> 73
> Jeff
>
>

1328. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 09:35:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <FuqdnUJkw6Z4OtXZRVnytQ@bt.com>
Source record: 60670

> The number one commonly sees is 1.64 (which is about 2.14dB)... not
> far off 1.61.
>
> Owen
==========

Yes, the difference is nearly 1/75th of an S-unit. That's almost
enough to make some people lose a contest.

Reg.

1329. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 09:51:19 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <rW12g.294579$zk4.156203@fe3.news.blueyonder.co.uk>
Source record: 60671

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:FuqdnUJkw6Z4OtXZRVnytQ@bt.com...
> > The number one commonly sees is 1.64 (which is about 2.14dB)... not
> > far off 1.61.
> >
> > Owen
> ==================================
>
> Yes, the difference is nearly 1/75th of an S-unit. That's almost
> enough to make some people lose a contest.
> ----
> Reg.
>
>

You could be right Reg....

Lee.....G6ZSG.

1330. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 12:26:39 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4448cf80$0$1012$39cecf19@news.twtelecom.net>
Source record: 60672

Michael Coslo wrote:

>
>
> Is there a beer called Budweiser now? Hopefully one to replace that old
> PeeWaa that was sold under the same name! ;^)
>
>
>
>
> darn stuff could give me a headache and make me queasy after one
> can..... ick.
>
>
> - 73 de Mike KB3EIA -

That's the additives. Lots of people get headaches from AB products.
I'm not sure which additives might do it, but boss probably does. He is
very much into making homebrew. Even has a kegging system.

Odd as it may sound, the pumpkin beer he made last fall was absolutely
delicious.

tom
K0TAR

1331. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 12:40:37 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4448d2c6$0$1012$39cecf19@news.twtelecom.net>
Source record: 60673

Reg Edwards wrote:

> The antenna gain of a half-wave dipole relative to an isotrope is
> 1.61.
>
> What are the gains relative to an isotrope of -
>
> A dipole with one reflector.
> A dipole with one reflector and one director.
> An N-element dipole array like a Yagi.
>
> Only approximate answers are needed.
>
> Thanking you in anticipation.
> ----
> Reg.
>
>

In a yagi gain is not related to the number of elements (as long as there are enough) once the boom gets significantly long. The point at which it is significantly long could be argued to be somewhere between 1/4 of a wavelength to a wavelength, where the effect is hard to see at 1/4, and absolutely there at 1.

Are you looking for some way to reasonably predict yagi gain? If so, there are a couple 3 equations which do a very fair job. Basically you need one for short yagis, and another for long. If you're interested, I'll dig the short boom out for you, but I can't right now, as I'm already waaaay behind schedule for getting to work.

Here's the one that works best for long booms -

G = 10 log (5.4075 B + 4.25) for B GT 1

Where G is gain in dBd and B is boomlength in wavelengths.

tom
K0TAR

1332. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 13:11:30 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <6S42g.28427$az4.181@bgtnsc04-news.ops.worldnet.att.net>
Source record: 60674

Cecil,

Since you have fallen back to the old "round and round the helix" model there is little hope for agreement. It is interesting, however, that even the Corum model for Vf at resonance is not as slow as the purely geometric model. Must be those standing waves again.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> You are the expert on Vf. You assert without proof that a half-length
>> coil has the same Vf as the full-length resonant coil. OK, even if I
>> accepted that supposition, what happens at a quarter-length or at a
>> tenth-length? I am simply asking how the function changes between the
>> "known" limits of 1.0 and <0.02. You have repeatedly ducked any sort
>> of answer.
>
>
> Seems Richard Clark has proven that it doesn't change between
> the "known" limits of 1.0 and <0.02. Where did those "known"
> limits come from anyway?
>
> For a single turn coil, seems the VF would roughly be the pitch
> divided by the circumference, something that would equal 1.0 only
> when the pitch and circumference were equal.
>
> For the 4 TPI, 6" diameter coil, the VF formula yields 0.02.
>
> The pitch divided by the circumference yields 0.013.

1333. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 13:27:11 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <4448dce9_2@newsfeed.slurp.net>
Source record: 60675

"Roy Lewallen" wrote:
> The maximum far field (sky wave) gain of a ground mounted
> quarter wave vertical over average ground, with a completely lossless
> ground system, is on the order of 0 dBi, and this occurs at roughly 25
> degrees above the horizon (both depending on
> frequency as well as ground characteristics).

The above is an understandable conclusion using NEC analysis, however it is not supported empirically. If it was, AM broadcast stations would perform very much differently than they do.

The measured data in Brown, Lewis & Epstein's 1937 benchmark paper "Ground Systems as a Factor in Antenna Efficiency" proved that the *radiated* groundwave field from a vertical monopole working against 113 buried radials each 0.41 lambda in length was within a few percent of its calculated peak value for a radiation pattern with maximum gain in the horizontal plane. The path length for the measurement was 0.3 miles, which was in the far field of the vertical monopole configurations measured.

BL&E's measurements, and the results of thousands of measurements made of the groundwave fields of MW broadcast stations using such radial ground systems ever since demonstrate that their peak gain always lies in the horizontal plane.

It is true that, as a groundwave propagation path becomes longer, the field measured at increasing elevations above the earth at distant ranges might be higher than measured at ground level at those ranges. But that is not because more field was launched by the original radiator toward those higher elevations -- it is because the the groundwave path has higher losses, which accumulate as that path lengthens. Therefore a NEC plot showing the conditions reported in the quote above do not accurately depict the elevation pattern as it is launched from the radiator, and the groundwave field it will generate.

There are software programs designed for calculating MW groundwave field strength given the FCC "efficiency" of the radiator and the conductivity of the path. The radiator efficiency is the groundwave field developed by the radiator with a given applied power at a given distance (1 kW @ 1 km). These values must meet a certain minimum level for the class of station. I think in all cases, they must be within ~0.5 dB of the theoretical value for a radiation pattern with its peak gain in the horizontal plane. In the case of directional MW antennas, this performance must be proven by field measurements.

Finally, standard equations show a peak field of ~137.6 mV/m at 1 mile from a 1/2-wave dipole radiating 1 kW in free space. The calculated groundwave field at 1 mile radiated by 1 kW from a 1/4-wave vertical MW monopole over a perfect ground plane is ~195 mV/m. This is the same field as generated by the free space 1/2-wave dipole, when all radiation is confined to one hemisphere (137.6 x 1.414).

The groundwave fields measured from thousands of installed MW broadcast antenna systems confirm that their intrinsic radiation patterns are within a fraction of a decibel of that perfect radiator over a perfect ground plane, no matter what is the conductivity at the antenna site (N.B. Reg).

RF

1334. Coax House Panel

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 13:38:30 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <qf52g.756$Dv6.334@tornado.tampabay.rr.com>
Source record: 60527

I am trying to gather ideas on how to have my coax cables (4 so far) dressed to enter my house from the various antennae. 2 of the coaxes have "N" connectors and 2 have PL-259 connectors. I would like to address lightning safety (Florida) as a primary consideration with a clean professional look as the secondary consideration. The house has a typical stucco/concrete block exterior, with a stud/dry-wall interior.
How do you address this issue? Can you describe your setup? Thank you.

Cordially,
west
AF4GC

1335. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 13:44:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <pvmdnelsdqexf9XZRVny2w@bt.com>
Source record: 60526

"Tom Ring" wrote
> Here's the one that works best for long booms -
>
> G = 10 log (5.4075 B + 4.25) for B GT 1
>
> Where G is gain in dBd and B is boomlength in wavelengths.
>
==========
Thanks Tom,

If we have 5 or 6 elements spaced approx 1/4-wave apart, that makes a boom length of 1 wavelength and a gain of 10 dB relative to a dipole.

Can experienced users of Yagi design programs confirm that 10 dB is in the right ballpark?

Yes please, I would like to see the equation for short booms and fewer elements on your return from the salt mine.

Reg.

1336. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 14:08:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <9NOdnQtmw4AletXZRVnyuQ@bt.com>
Source record: 60528

"Richard Fry" wrote
> The groundwave fields measured from thousands of installed MW
broadcast
> antenna systems confirm that their intrinsic radiation patterns are
within a
> fraction of a decibel of that perfect radiator over a perfect ground
plane,
> no matter what is the conductivity at the antenna site (N.B. Reg).
>
==========

So you cleverly avoid the problem of how to calculate the effects of ground conductivity by laying down more than enough radials of more than sufficient length to hide the effects.

B,L & E sure had the right idea.

But hardly a satisfactory economic engineering solution.

Reg.

1337. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 14:10:07 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <3J52g.74001$dW3.31941@newssvr21.news.prodigy.com>
Source record: 60529

"Gene Fuller" <W4SZzzzzzz@att.net> wrote:

>W5DXP wrote:
> > For the 4 TPI, 6" diameter coil, the VF formula yields 0.02.
> >
> > The pitch divided by the circumference yields 0.013.

> Since you have fallen back to the old "round and round the helix" model
> there is little hope for agreement. It is interesting, however, that
> even the Corum model for Vf at resonance is not as slow as the purely
> geometric model. Must be those standing waves again.

Anyone who says the current goes "round and round the helix"
is wrong. Anyone who says the current goes like a "short circuit
through the coil is wrong."

There is NO rail "round and round the helix'! There is NO rail
"short circuit through the coil"! There is, as usual, something in
between the two rails. Looking at Fig. 1 in Dr. Corum's IEEE paper:

For a diameter/wavelength ratio of 10^-3

If the coil is1000 turns/wavelength, the VF is 0.8 which is closer
to a "short circuit through the coil" than it is to "round and round
the helix".

If the coil is 5000 turns/wavelength, the VF is 0.18 which is
closer to "round and round the helix" than it is to a "short
circuit through the coil".

The field coupling between the coils is responsible for the VF
not being as slow as the purely geometric model but there is
a practical physical limit to the number of coils that are being
coupled.

Coils are a combination of primary and secondary characteristics.
All the primary characteristics need to be taken into account. Some
of the secondary characteristics can be omitted under certain
conditions.
--
73, Cecil, W5DXP

1338. Re: Coax House Panel

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 14:37:19 UTC
From: Buck <not@this.time>
Message-ID: <clqh42htn2kht7u4r12mhov6jujcvlk8dd@4ax.com>
Source record: 60530

On Fri, 21 Apr 2006 13:38:30 GMT, "west" <westley@tampabay.rr.com>
wrote:

>I am trying to gather ideas on how to have my coax cables (4 so far) dressed
>to enter my house from the various antennae. 2 of the coaxes have "N"
>connectors and 2 have PL-259 connectors. I would like to address lightning
>safety (Florida) as a primary consideration with a clean professional look
>as the secondary consideration. The house has a typical stucco/concrete
>block exterior, with a stud/dry-wall interior.
>How do you address this issue? Can you describe your setup? Thank you.
>
>Cordially,
>west
>AF4GC
>

I have used several approaches. In raised houses, I have used the
floor as an entrance for the feed lines. In my current location with
a slab-floor, I feed the leads behind the vinyl siding and enter the
home though a wall outlet with two SO-239 feed-thru connectors in the
plate. The wires go into a CATV cover that happened to be on the
house already, where it is grounded to the ground-rod used for CATV
and the electrical panel. From there, my coax is run along the ground
at the edge of the house to a point at which I plan to setup a
vertical antenna during those times I wish to use it. When not using
it, I will remove it and place it back in the garage. (we have
neighborhood covenants :( ).

In a previous home, I drilled a hole in the bottom of a closet corner
(inside near the wall so it won't be seen by someone casually looking
into the closet) and run my cables under the closet door to my rig
which was on a table next to the door. A 3 inch piece of PVC pipe
stuffed with plastic and foam sealed the weather and bugs out. When I
left, a wood disk was glued and nailed into place so the hole was not
obvious or offensive to the landlord when I left.

I am currently working on a different kind of 'flagpole' hidden
antenna idea for this location so I can temporarily install dipole
antenna(s) as desired without upsetting the neighbors.

I hope this helps.

73 for now

--
73 for now

Buck
N4PGW

1339. Re: Choke Balun Torture

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 15:15:08 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145632508.628444.206190@g10g2000cwb.googlegroups.com>
Source record: 60531

John,

Thanks for the info.

What I've got are the .38 OD .25 ID ones. Thanks for the info. Seems like I've been overkilling the VHF stuff. I think my 2m beam has 50 of them on it, and if they're 12 ohms down at 7MHz...

I'll save that fair-rite link for future reference, but right now it's locking my browser!

I guess the bead balun would be more broadbanded. I've not yet measured the self-resonant frequency of my toroidal choke, but I'd imagine it's somewhere in mid-high HF.

I think I'll string up a hundred beads and use that as my choke.

Thanks for the input es 73,

Dan
N3OX
www.n3ox.net

1340. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 15:30:24 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e2atqg$1idm$1@f04n12.cac.psu.edu>
Source record: 60532

Richard Clark wrote:
>
> Investigating Fig. 1 reveals there is no way to resolve the Vf through
> shortening a coil. Only Cecil could argue there's a pony in all that
> horseshit, so while he's saddling himself to that mound, let's proceed
> to see why his dotaged enthusiasm is ill-founded.

Wow! One of the bestest funniest paragraphs I've ever had the pleasure of reading!

Remind me never to get on your bad side..... 8^)

Back on topic now. Was there ever any correlation between the measurements made by Cecil and Yuri with the information and tests performed by Tom W8JI? I had asked the question a couple times, but have no answer yet. Maybe the message got lost.

I might be being simple here, but it seems that maybe if there was a reasonable correlation drawn between the two instances.we could avoid all the other junk going on.

Although getting wrapped around the axle apparently has its own benefits to some.....

- 73 de Mike KB3EIA -

1341. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 15:46:30 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <124hvik49515e94@corp.supernews.com>
Source record: 60533
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Fred" <freddyr1928@ll.net> wrote in message
news:es2h42t8e2b54t9v971jmc1q2et4eoihpi@4ax.com...
> On 20 Apr 2006 06:56:26 -0700, "AC7PN" <brunius@rockisland.com> wrote:
>
>>Watching two men holding hands and kissing gives me the creeps less
>>than your intolerant letter. What two men do out of my sight doesn't
>>bother me at all. Skirt Chaser should do us all a favor and practice
>>his intollerance in the privacy of his own home.
>>
>>Although I'm not about to go see that Broke Back Mountain movie I would
>>be happy to talk with a gay ham on the bands.
>>
>>Bob AC7PN
>
> I am sure you would...

He won't go see it, but he probably owns a copy.

1342. Re: Grounding Bar Length For Receiving Only Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 15:52:53 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145634773.939709.214070@z34g2000cwc.googlegroups.com>
Source record: 60534

I stand corrected!

I should have calculated it.

Sorry for including gross misinformation about MF & HF skin depth in typical soil.

A modest radial system will whip a deep ground rod, though. I'm about 10% tempted to break out J.D. Jackson' Classical Electrodynamics and try to calculate the RF resistance vs. depth of a ground rod, but I know it's going to be hard to deadly.

Quantitative is always best in this sort of discussion, for sure.

Thanks for the response.

Dan,
N3OX

1343. put the blame for the subject you don't like on the prep take a little personal responiblity

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 16:09:54 UTC
From: an old freind <kb9rqz_ars@yahoo.com>
Message-ID: <1145635794.004708.235920@u72g2000cwu.googlegroups.com>
Source record: 60535
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Dr.Death wrote:
> "Fred" <freddyr1928@ll.net> wrote in message
> news:es2h42t8e2b54t9v971jmc1q2et4eoihpi@4ax.com...
> > On 20 Apr 2006 06:56:26 -0700, "AC7PN" <brunius@rockisland.com> wrote:

> >>Bob AC7PN
> >
> > I am sure you would...
>
> He won't go see it, but he probably owns a copy.

just such reamrks are proof Dr yuyou are amoug the perps

1344. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 16:12:16 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Av72g.74021$dW3.52162@newssvr21.news.prodigy.com>
Source record: 60536

"Michael Coslo" <mjc5@psu.edu> wrote:
> Back on topic now. Was there ever any correlation between the
> measurements made by Cecil and Yuri with the information and tests
> performed by Tom W8JI? I had asked the question a couple times, but have
> no answer yet. Maybe the message got lost.

Might have been when I was out of town. Except for a
single toroidal coil anomaly, all of the measurements
show a different magnitude of current at the two ends
of the coils. Most of my measurements have been at
the self-resonant frequency of a loading coil.

A 75m mobile bugcatcher coil is part of a standing wave
antenna with near-equal forward and reflected currents
flowing in opposite directions (phasors rotating in
opposite directions). As a result, the standing wave
current on the antenna has essentially the same phase
as the source current all up and down the antenna
whether a loading coil exists or not. Standing wave
current on a mobile antenna cannot be used to measure
phase shift or delay through a wire or a coil.

That standing wave current is of the form,
I = Io*cos(kx)*cos(wt), and cannot be used to determine
phase shift. So the major measurement mistakes were
not in the magnitudes, which are relatively easy to measure,
but in the phase-delay measurements, which were invalid.

The major conceptual mistake concerns standing waves,
not coils. It appears that some people didn't even realize
that they were dealing with a standing wave current on a
standing wave antenna.

The best estimates of actual delays through the coils seems
to come from the Dr. Corum IEEE paper where formulas
are given for the VF and Z0 of a coil. For the particular
coil being modeled in EZNEC, the VF formula yields
~0.02, or about 37 degrees for a 6" long coil on 4 MHz.
--
73, Cecil, W5DXP

1345. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 16:30:25 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <444907dd_5@newsfeed.slurp.net>
Source record: 60537

"Reg Edwards" wrote
> So you cleverly avoid the problem of how to calculate the effects
> of ground conductivity by laying down more than enough radials
> of more than sufficient length to hide the effects.
>
> B,L & E sure had the right idea.
>
> But hardly a satisfactory economic engineering solution.

So you think it is preferable to install a less than optimal radial ground system, as long as you can calculate how deficient it is?

MW broadcast stations want/need maximum groundwave coverage. Installing a "BL&E" radial ground system will provide that for all conductivity conditions at the tx antenna site -- which equates to a very satisfactory and economic engineering solution for this application.

RF

1346. question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 16:58:43 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-9BCBA3.18583921042006@ns.stben.net>
Source record: 60538
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On the picture, you'll see 7 connections for the cables, oe at the
bottom (7), 6 at the top of the C. How do I need to connect the cables
to have the maximum out of my AM/SW loop antenna ??

http://users.fulladsl.be/spb13810/amloop/tunablec.jpg

I would like to know what I can do with screws A, B, C and D, and of
course, where to connect the cable ends ...

I am making one loop with these tools:
these are the picts:
http://users.fulladsl.be/spb13810/amloop/loop83cm.jpg

the loop, diameter = 83 cm.

http://users.fulladsl.be/spb13810/amloop/loopbottom.jpg
The bottom, a plastic case 11 x 18 cm.

http://users.fulladsl.be/spb13810/amloop/loopbottom2.jpg
The plastic screws that fit the hulahoop.

I will mount the C inside the box, so I'll have no cables outside ...

Thanks,
Marc

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

1347. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 17:09:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5e4i42leh52g6in3ojvlg2fba4fihfh2ef@4ax.com>
Source record: 60539

On Fri, 21 Apr 2006 07:39:11 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>It was Gene Fuller who said the coil varied between the "known"
>limits of 1.0 and <0.02, not I.
You can't change the Vf by shortening a Vf = 0.02 coil, hmmm?
Remarkable shortening of your own theory there.

Perhaps you might want to try again using real numbers. Simply
because you play the pity card of forgetfulness (blaming your reader
usually as a bluff) we will reprise the question once again:

Asked: At one length, one coil exhibits
Vf = 0.02,
reduce the coil length, what length for the SAME coil would that be
to render
Vf = 0.2
for instance?

1. We are not changing frequency;
2. we are not changing diameter/lambda
(nor in fact changing diameter OR lambda);
3. we are not changing pitch/lambda
(nor in fact changing pitch OR lambda).

SAME coil means the one being offered, and being shortened - all other
provisos stand

1348. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 17:19:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ah4i42li32nc25pk0j1ma5tmddbe6a48e6@4ax.com>
Source record: 60540

On Fri, 21 Apr 2006 11:30:24 -0400, Michael Coslo <mjc5@psu.edu>
wrote:

> Back on topic now. Was there ever any correlation between the
>measurements made by Cecil and Yuri with the information and tests
>performed by Tom W8JI?

Hi Mike,

Well, you have a serious problem embodied in your statement. Neither Cecil nor Yuri made any measurements. Perhaps Yuri observed some shrink tube that had charred while he was working power, but actually that is a stretch (not shrink) as he "observed" this only after the fact. You certainly have read enough correspondence to observe for yourself that Yuri cannot describe any system fully, so saying there were correlations can only come from a heated imagination (more current in than coming out). If there have been any experimental details made under observed conditions, we have to credit Tom.

73's
Richard Clark, KB7QHC

1349. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 17:40:47 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145641247.807811.178290@e56g2000cwe.googlegroups.com>
Source record: 60541

My take on it is that Richard just loves yanking a chain that's particularly easy to yank and will invariably respond in a way that allows more yanking.

Everybody has long since agreed in principle; it's just that some people remain buried so deeply in the forest that they can't see it for all the trees. Or maybe it's that they are buried so deeply in the pile that Richard was mentioning that they can't find the pony that's been there all along to ride out on.

All this wave BS is just mathematical abstraction to 'splain what's really going on anyway. If one is smart enough to actually get through the math without making computational or conceptual errors, he's still going to be lost if he doesn't relate it back to what it is that the math is explaining. His loss; too bad.

Cheers,
Tom

(Hope I didn't let your secret out of the bag, Richard!)

1350. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 17:53:33 UTC
From: Bill Turner <noway@nohow.com>
Message-ID: <44491c1d$1_3@newsfeed.slurp.net>
Source record: 60543

ORIGINAL MESSAGE:

jawod wrote:

> and EVERYONE said Quayle was wrong

********** REPLY SEPARATOR **********

Sorry, that is not true. Quayle was attacked left, right and center on a personal level, but not one major newspaper, news magazine or TV network said his conclusions about Murphy Brown were wrong. I remember it well.

I'm no particular fan of Quayle, but fair is fair.

Bill T.

1351. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 17:56:02 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145642162.227269.21470@g10g2000cwb.googlegroups.com>
Source record: 60542
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Marc,

That's a fine picture of a variable capacitor, but how are we supposed to know how the connections inside are made, or what the capacitance values are? You may be able to tell if you inspect it carefully from the outside. Even if I have one that _looks_ similar (which I may well have) I would not rely on its having the same connections or capacitance values as yours.

Have you done any analysis of the loop to see what capacitance you need to tune it to the frequencies you care about? Reg Edwards has on his website a program that's useful for analyzing loop antennas. I believe it's only set up for square loops, but if you enter side lengths to give the same loop area as you have, you should get quite close to the same performance. You may find it's helpful to use a larger cross-section wire in the hula-hoop, for lower resistance.

How will you tune the antenna to different frequencies if the capacitor is sealed in the box? Will you provide a hole for adjustment? How will you feed the antenna output to the receiver? What frequency range do you hope to cover?

I fear there are more questions than answers...but questions are good if they get you thinking about the whole situation before you put a lot of work into something that may not do what you expect or what you want.

Cheers,
Tom

1352. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 17:57:02 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dd6i42pa6qqm7gsj4fsafn01ufj57rq2bi@4ax.com>
Source record: 60544
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On Fri, 21 Apr 2006 18:58:43 +0200, switcher
<no@KijkenZeHierOokAlNaar.be> wrote:

Hi Marc,

Nice pictures by the way.

>On the picture, you'll see 7 connections for the cables, oe at the
>bottom (7), 6 at the top of the C. How do I need to connect the cables
>to have the maximum out of my AM/SW loop antenna ??
>
>http://users.fulladsl.be/spb13810/amloop/tunablec.jpg

You will need a VOM to check, but it appears that numbers 1, 3, 4, 6,
and 7 go to the frame (stator). Screws A, B, C, and D look like
trimmers, not wire attachments (that is, they are small variable caps
in parallel to the main caps).

Numbers 2 and 5 appear to be the main capacitor connections with
reference to the frame. This looks like an old AM tuning component
for which you would have two Caps. One for tuning the front end, the
other for the local oscillator, and the trim caps take care of both
matching the antenna, and keeping the IF tracking between the two
(usually adjusted at the high end of the band). The two main Caps
also have different maximums (because they tune over different ranges
of frequencies).

None of this is of any consequence to you for your project, however.
You need only confirm my guess of the frame connections. If that
bears out, tie them all together, or use just one and ignore the rest.
This is one half of your project's Cap. If 2 and 5 show no continuity
to anything else (except the screw heads, perhaps), then that confirms
their status as being the rotor half of the variable Cap. Tie them
together for the other half of your project Cap.

If there is any variation in testing with the VOM for continuity, you
may have a split frame. Visual inspection should reveal two
assemblies that would be very similar in construction. Take hints
from discussion above to reduce the complexity of all the leads.

73's
Richard Clark, KB7QHC

1353. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 18:01:14 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <K592g.7435$sq5.4556@newsread2.news.atl.earthlink.net>
Source record: 60545
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

"switcher" <no@KijkenZeHierOokAlNaar.be> wrote in message
news:no-9BCBA3.18583921042006@ns.stben.net...
> On the picture, you'll see 7 connections for the cables, oe at the
> bottom (7), 6 at the top of the C. How do I need to connect the cables
> to have the maximum out of my AM/SW loop antenna ??
>
> http://users.fulladsl.be/spb13810/amloop/tunablec.jpg
>
>
> I would like to know what I can do with screws A, B, C and D, and of
> course, where to connect the cable ends ...
>
I am not sure how to connect the wires to the loop, but they go to the tabs
that are numbered.
The screws go to 4 small trimmer capacitors for adjustments. Usually that
kind of capacitor comes out of an AM/FM radio and the capacitors are for
fine adjustments of the ranges. One for the frequency of the oscillator and
one for the tuning for each band. They mostly affect the high end of the
band as they are small in compairison to the main capacitor. The are hooked
internally to the main capacitors the shaft adjusts.
If you look close you will see the half round plate turn as you turn the
screw. A coil is usually adjust for the low end of the band. You go back
and forth from the low end , adjusting the coil and to the high end
adjusting the screw for the best tracking across the band. The oscillator
for the frequency readout and the tuning for maximum signal.

1354. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 18:34:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cc7i42hbh9laipqsdh5cq6uc76ds4fq3cn@4ax.com>
Source record: 60546

On 21 Apr 2006 10:40:47 -0700, "K7ITM" <k7itm@msn.com> wrote:

>My take on it is that Richard just loves yanking a chain that's
>particularly easy to yank and will invariably respond in a way that
>allows more yanking.

I can do that by simply asking for data.

>(Hope I didn't let your secret out of the bag, Richard!)

Hi Tom,

The "secret," as you put it, is still as hidden to them as the WMD.

As you infer, it is rather all too easy to stir, but harder to
accomplish. Inferior talents prove that daily. None here see but
perhaps a tenth or less of what I've written; because as with good
technical writing, the best comedy is what is left after pruning the
excess from it.

73's
Richard Clark, KB7QHC

1355. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 18:39:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <AF92g.68406$H71.13330@newssvr13.news.prodigy.com>
Source record: 60547

K7ITM wrote:
> All this wave BS is just mathematical abstraction to 'splain what's
> really going on anyway.

Actually, it's just the other way around. How is one ever
going to understand what's really going on by superposing
waves to the point where half the information is lost?

And how does one know the failure point of the lumped
circuit model if they don't understand the superior
distributed network superset model?
--
73, Cecil http://www.qsl.net/w5dxp

1356. Re: Choke Balun Torture

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 18:51:02 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <v9GdnfWokaGOtdTZnZ2dnUVZ_vWdnZ2d@adelphia.com>
Source record: 60548

n3ox.dan@gmail.com wrote:
> John,
>
> Thanks for the info.
>
> What I've got are the .38 OD .25 ID ones.

How long?

> Thanks for the info. Seems
> like I've been overkilling the VHF stuff. I think my 2m beam has 50 of
> them on it, and if they're 12 ohms down at 7MHz...

The impedance of type 43 beads keeps climbing (though not in
proportion to frequency) to well above 100MHz.

> I'll save that fair-rite link for future reference, but right now it's
> locking my browser!

It will unlock after a significant fraction of the 8 Meg file loads.
At least, that is what it does with mine.

> I guess the bead balun would be more broadbanded. I've not yet
> measured the self-resonant frequency of my toroidal choke, but I'd
> imagine it's somewhere in mid-high HF.
>
> I think I'll string up a hundred beads and use that as my choke.

Way more than needed. :-)

1357. Re: Choke Balun Torture

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 19:07:25 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145646445.209693.145900@i39g2000cwa.googlegroups.com>
Source record: 60549

They're the 1/4" long ones.

I dunno, I like 1200 ohms... 24 times my feedpoint impedance?

I'm sure it's overkill given the induced currents that will flow
anyway...

I've got the beads, though, and I could use it on 80m too...

I can only basically have one antenna up at a time so I've gone over to
modular antenna parts and so one lower-HF bead balun can be used on
whatever I'm playing with at the time. I've only got one permanently
installed antenna, and that only until the wind blows...

Ah, apartment life.

73 John..

1358. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 19:12:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <A8a2g.68412$H71.63168@newssvr13.news.prodigy.com>
Source record: 60550

Richard Clark wrote:
> Neither Cecil nor Yuri made any measurements.

I made self-resonance measurements on loading coils
and standing wave current measurements on a 6m dipole.
W8JI said my measurements were in error. W7EL said
my measurements agreed with EZNEC.
--
73, Cecil http://www.qsl.net/w5dxp

1359. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 19:52:04 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <z5ZriNQkfTSEFAf5@ifwtech.co.uk>
Source record: 60555

Reg Edwards wrote:
>
>"Tom Ring" wrote
>> Here's the one that works best for long booms -
>>
>> G = 10 log (5.4075 B + 4.25) for B GT 1
>>
>> Where G is gain in dBd and B is boomlength in wavelengths.
>>
>=======================================
>Thanks Tom,
>
>If we have 5 or 6 elements spaced approx 1/4-wave apart, that makes a
>boom length of 1 wavelength

Make that: "If we have 5 or 6 elements optimally spaced along a boom length of 1 wavelength, we can hope for something in the region of"

>a gain of 10 dB relative to a dipole.
>
>Can experienced users of Yagi design programs confirm that 10 dB is in
>the right ballpark?

That's about the best gain we can hope for, given a one-wavelength boom to play with. On the other hand, poor choices of element lengths and positioning will produce many dBs less forward gain... or even gain in the opposite direction.

>
>Yes please, I would like to see the equation for short booms and fewer
>elements on your return from the salt mine.

There isn't really "an" equation for gain versus boom length, because boom length is only an indicator of the potentially achievable gain. But nothing "makes" a yagi deliver any particular gain figure.

Quite the opposite: very often, yagi designers will deliberately sacrifice some forward gain to obtain better performance in other important respects. These can include a cleaner pattern, a more convenient feed impedance and better tolerance to element loading by rain and ice; and all maintained over a wider bandwidth.

Yagis that have been single-mindedly optimized for maximum gain tend to be poor performers in other respects - especially tolerance to element loading.

The equation that Tom quoted is just the best-fit line through the gain figures for one particular family of reasonably good long yagi designs. Other good designs will have similar gain, but different performance in other respects. And for every good yagi design, there are many more that come nowhere near this level of performance.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1360. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 19:52:21 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <VJa2g.29332$az4.2326@bgtnsc04-news.ops.worldnet.att.net>
Source record: 60551

Cecil Moore wrote:

>
> Actually, it's just the other way around. How is one ever
> going to understand what's really going on by superposing
> waves to the point where half the information is lost?

Cecil,

That question explains everything. It demonstrates conclusively that you
no understanding of superposition.

73,
Gene
W4SZ

1361. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 19:53:40 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <8La2g.29336$az4.15605@bgtnsc04-news.ops.worldnet.att.net>
Source record: 60552

Gene Fuller wrote:
> Cecil Moore wrote:
>
>>
>> Actually, it's just the other way around. How is one ever
>> going to understand what's really going on by superposing
>> waves to the point where half the information is lost?
>
>
>
> Cecil,
>
> That question explains everything. It demonstrates conclusively that you
> no understanding of superposition.
>
> 73,
> Gene
> W4SZ

It also demonstrates that I can't proofread two sentences.

1362. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 19:54:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f2ei42l0gfiaqobb10vircdcenh4dpulo7@4ax.com>
Source record: 60553

On Fri, 21 Apr 2006 19:12:32 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>> Neither Cecil nor Yuri made any measurements.
>
>I made self-resonance measurements on loading coils
>and standing wave current measurements on a 6m dipole.
>W8JI said my measurements were in error. W7EL said
>my measurements agreed with EZNEC.

My appologies, so you did.

1363. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 19:55:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n4ei42t6unn3b7gs9rr9efee1rkh3924jr@4ax.com>
Source record: 60554

On Fri, 21 Apr 2006 19:53:40 GMT, Gene Fuller <W4SZzzzzzz@att.net>
wrote:

>Gene Fuller wrote:
>> Cecil Moore wrote:
>>
>>>
>>> Actually, it's just the other way around. How is one ever
>>> going to understand what's really going on by superposing
>>> waves to the point where half the information is lost?
>>
>>
>>
>> Cecil,
>>
>> That question explains everything. It demonstrates conclusively that you
>> no understanding of superposition.
>>
>> 73,
>> Gene
>> W4SZ
>
>It also demonstrates that I can't proofread two sentences.

Perhaps half the information was lost by superpositioning them.

1364. Re: put the blame for the subject you don't like on the prep take a little personal responiblity

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 20:19:59 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1145650799.518193.28190@g10g2000cwb.googlegroups.com>
Source record: 60556
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 21 Apr 2006 09:09:54 -0700, "an old freind" <kb9rqz_ars@yahoo.com>
> wrote:
>Hey, that guy wants to talk to a fag on the air. I
> suggest you guys can link up on Ecolink and have a gay old time by
> yourselves.

take respoiblity for your posting Fred

1365. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 20:48:03 UTC
From: rerun@worldnet.net
Message-ID: <a0hi42t0rrtqb0rglp4a2maclf7kcdod85@4ax.com>
Source record: 60557

On Sun, 16 Apr 2006 21:55:45 -0400, Buck <not@this.time> wrote:

I'm using a random length loop, probably about 200 feet fed with
450 ohm ladder line. The ladder line hangs about 18 inches from
my tower and I get good reports from all over. My advice, if you
have and idea, try it, if it works great. If not, back to the drawing
board

Jim WU7G

>>In general there is a magnetic/electric field between the conductors in
>>twinlead feed line.
>>Dave WD9BDZ
>
>Dave,
>
>Just to clarify, is the 'magnetic/electric field' to which you refer
>the same as saying 'electromagnetic field'? I am just trying to
>clarify whether it is just how you expressed it or if you are making a
>distinctive difference.
>
>Thanks
>Buck

1366. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 20:57:45 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <yf-dnXmS6tXY2tTZRVn-gw@comcast.com>
Source record: 60558

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:pvmdneIsdqexf9XZRVny2w@bt.com...
>
> "Tom Ring" wrote
>> Here's the one that works best for long booms -
>>
>> G = 10 log (5.4075 B + 4.25) for B GT 1
>>
>> Where G is gain in dBd and B is boomlength in wavelengths.
>>
> ======================================
> Thanks Tom,
>
> If we have 5 or 6 elements spaced approx 1/4-wave apart, that makes a
> boom length of 1 wavelength and a gain of 10 dB relative to a dipole.
>
> Can experienced users of Yagi design programs confirm that 10 dB is in
> the right ballpark?
>
> Yes please, I would like to see the equation for short booms and fewer
> elements on your return from the salt mine.
> ----
> Reg.
>
>
Reg,
I have run EZnec on a KLM 50-7LD. This is a 7 element on a 20 foot boom.
Almost exacty 1 wavelength long. There is a dual driven element; so, it is
more like a 6 element beam. The gain in free space computes to 11.01 dbi.

Tam/WB2TT

1367. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 21:22:51 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44494d2c$0$1015$39cecf19@news.twtelecom.net>
Source record: 60559

Ian White GM3SEK wrote:

>
> There isn't really "an" equation for gain versus boom length, because
> boom length is only an indicator of the potentially achievable gain. But
> nothing "makes" a yagi deliver any particular gain figure.
>
> Quite the opposite: very often, yagi designers will deliberately
> sacrifice some forward gain to obtain better performance in other
> important respects. These can include a cleaner pattern, a more
> convenient feed impedance and better tolerance to element loading by
> rain and ice; and all maintained over a wider bandwidth.
>
> Yagis that have been single-mindedly optimized for maximum gain tend to
> be poor performers in other respects - especially tolerance to element
> loading.
>
> The equation that Tom quoted is just the best-fit line through the gain
> figures for one particular family of reasonably good long yagi designs.
> Other good designs will have similar gain, but different performance in
> other respects. And for every good yagi design, there are many more that
> come nowhere near this level of performance.
>

Ian is correct, and I should have stated that this equation is for well designed yagis. Also there were 3 families of antennas involved, plus some odds and ends. The K1FO models all are within about 2 tenths of a dB of the line in question.

Also, if we move to pure gain number, as in the multiplication factor, the line produced by well designed yagis is virtually ruler straight above 1 wavelength, and up to a a point I can't remember. It's above 10. And then it starts to roll off, which makes sense. I'd have to go look at the models again to find where the rolloff becomes noticable.

tom
K0TAR

1368. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 22:32:44 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-5860E0.15324321042006@newsclstr02.news.prodigy.com>
Source record: 60560
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <no-9BCBA3.18583921042006@ns.stben.net>,
switcher <no@KijkenZeHierOokAlNaar.be> wrote:

> On the picture, you'll see 7 connections for the cables, oe at the
> bottom (7), 6 at the top of the C. How do I need to connect the cables
> to have the maximum out of my AM/SW loop antenna ??
>
> http://users.fulladsl.be/spb13810/amloop/tunablec.jpg
>
>
> I would like to know what I can do with screws A, B, C and D, and of
> course, where to connect the cable ends ...
>
>
>
> I am making one loop with these tools:
> these are the picts:
> http://users.fulladsl.be/spb13810/amloop/loop83cm.jpg
>
> the loop, diameter = 83 cm.
>
> http://users.fulladsl.be/spb13810/amloop/loopbottom.jpg
> The bottom, a plastic case 11 x 18 cm.
>
> http://users.fulladsl.be/spb13810/amloop/loopbottom2.jpg
> The plastic screws that fit the hulahoop.
>
> I will mount the C inside the box, so I'll have no cables outside ...

The capacitor will go across the coil or in other words connect to the ends of the coil.

The capacitor is made of two opposing conducting plates with an insulator between them. For most tunable capacitors the insulator is air. One plate will stay in place and the other will rotate by turning the shaft. When the plates are meshed together you have maximum capacitance and lowest frequency of operation. You will have to look through the case to find the connections to the opposing plates for each section.

I can't tell from the picture but it looks like this box has two or more sections. You can parallel the sections together if one section does not have enough capacitance.

Also hard to tell is what the "screws" are in the picture but I expect
that they are trimmers (additional small adjustable capacitors) that are
arrayed across the main capacitor sections for alignment purposes.

--
Telamon
Ventura, California

1369. Re: Coax House Panel

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 22:54:59 UTC
From: John <JohnASiegel@worldnet.att.net>
Message-ID: <444962BD.1090309@worldnet.att.net>
Source record: 60561

Buck wrote:
> On Fri, 21 Apr 2006 13:38:30 GMT, "west" <westley@tampabay.rr.com>
> wrote:
>
>
>>I am trying to gather ideas on how to have my coax cables (4 so far) dressed
>>to enter my house from the various antennae. 2 of the coaxes have "N"
>>connectors and 2 have PL-259 connectors. I would like to address lightning
>>safety (Florida) as a primary consideration with a clean professional look
>>as the secondary consideration. The house has a typical stucco/concrete
>>block exterior, with a stud/dry-wall interior.
>>How do you address this issue? Can you describe your setup? Thank you.
>>
>>Cordially,
>>west
>>AF4GC
>>
>
>
>
> I have used several approaches. In raised houses, I have used the
> floor as an entrance for the feed lines. In my current location with
> a slab-floor, I feed the leads behind the vinyl siding and enter the
> home though a wall outlet with two SO-239 feed-thru connectors in the
> plate. The wires go into a CATV cover that happened to be on the
> house already, where it is grounded to the ground-rod used for CATV
> and the electrical panel. From there, my coax is run along the ground
> at the edge of the house to a point at which I plan to setup a
> vertical antenna during those times I wish to use it. When not using
> it, I will remove it and place it back in the garage. (we have
> neighborhood covenants :( ).
>
>
> In a previous home, I drilled a hole in the bottom of a closet corner
> (inside near the wall so it won't be seen by someone casually looking
> into the closet) and run my cables under the closet door to my rig
> which was on a table next to the door. A 3 inch piece of PVC pipe
> stuffed with plastic and foam sealed the weather and bugs out. When I
> left, a wood disk was glued and nailed into place so the hole was not
> obvious or offensive to the landlord when I left.
>
> I am currently working on a different kind of 'flagpole' hidden
> antenna idea for this location so I can temporarily install dipole
> antenna(s) as desired without upsetting the neighbors.

>
> I hope this helps.
>
> 73 for now
>
>
I raise the bottom sash of the window and install a metal plate across the opening.
The sash must be sealed to both the plate and to the upper sash to prevent leaks. The plate itself is connected to the main shack ground just outside. Bulkhead style connectors both UHF and N are used for the coax leads. I used an octal socket for the rotor cable and an F connector for a power lead to a mast mounted 432 preamp. The point is that all the connections can be easily removed if there is lightning in the area. I did the same things some years back for my Dad's house in Florida; unfortunately this was after having some lightning damage.

In his previous house with cinder block walls, we put a piece of pipe right through the wall with a downward facing elbow outside. Leave a drain loop on the coax and seal the pipe with insulation to keep out the bugs.
John

1370. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 23:08:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <VBd2g.68501$H71.53458@newssvr13.news.prodigy.com>
Source record: 60562

Gene Fuller wrote:
> Cecil Moore wrote:
>> Actually, it's just the other way around. How is one ever
>> going to understand what's really going on by superposing
>> waves to the point where half the information is lost?
>
> That question explains everything. It demonstrates conclusively that you
> no understanding of superposition.

Here's what one of the experts told me about superposition.

Gene Fuller, W4SZ wrote:
> In a standing wave antenna problem, such as the one you describe,
> there is no remaining phase information. Any specific phase
> characteristics of the traveling waves died out when the startup
> transients died out.
>
> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be
> seen again.
--
73, Cecil http://www.qsl.net/w5dxp

1371. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 23:11:44 UTC
From: Thomas anonymous <Thomas.anonymous.26nbnx@news.radiobanter.com>
Message-ID: <Thomas.anonymous.26nbnx@news.radiobanter.com>
Source record: 60572

I agree, however in my current situation I really can't keep going up and down to the roof because I'm renting a suite in the basement and I'm already pushing things with all the feedlines and isopole VHF antennas already up there. The landlord is a really decent guy and has been totally reasonable --- so far. If I keep wanting to do more and more he's going to feel obligated to say no sooner or later.

There's another issue, though, a more important one --- I moved the feedpoint to the SW corner of the roof (pic at http://members.shaw.ca/cyberhun/ham.htm) and used coax for the feedline. But when I was up there, I was so freaked out by the height that I forgot to waterproof the termination --- but I'm not going back up there til I can figure a way to do it more securely. It doesn't matter how many guys are holding the bottom of the ladder. If it starts to slide one way or the other, there's too much leverage for anyone to stop it. Water damage be damned, a fall from that height could be deadly.

--
Thomas anonymous

1372. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 23:12:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <KFd2g.68502$H71.14390@newssvr13.news.prodigy.com>
Source record: 60563

Gene Fuller wrote:

> Gene Fuller wrote:
>
>> Cecil Moore wrote:
>>> Actually, it's just the other way around. How is one ever
>>> going to understand what's really going on by superposing
>>> waves to the point where half the information is lost?
>>
>> That question explains everything. It demonstrates conclusively that
>> you no understanding of superposition.
>>
> It also demonstrates that I can't proofread two sentences.

Take two PSK signals, superpose them through the same coax,
and see how much information is lost.
--
73, Cecil http://www.qsl.net/w5dxp

1373. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-21 23:44:48 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44496e71$0$1016$39cecf19@news.twtelecom.net>
Source record: 60564

Reg Edwards wrote:

> "Tom Ring" wrote
>
>>Here's the one that works best for long booms -
>>
>>G = 10 log (5.4075 B + 4.25) for B GT 1
>>
>>Where G is gain in dBd and B is boomlength in wavelengths.
>>
>
> ====================================
> Thanks Tom,
>
> If we have 5 or 6 elements spaced approx 1/4-wave apart, that makes a
> boom length of 1 wavelength and a gain of 10 dB relative to a dipole.
>
> Can experienced users of Yagi design programs confirm that 10 dB is in
> the right ballpark?
>
> Yes please, I would like to see the equation for short booms and fewer
> elements on your return from the salt mine.
> ----
> Reg.
>
>

This one by Bill Myers, K1GQ, is supposed to work well for short yagis.
I have no experience with it. All of mine is with V/U HF yagis.

G = 3Ln(B) + 9.85

tom
K0TAR

1374. Re: Antennas (?) on military planes

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 00:00:24 UTC
From: JWCook <jwcook@ozemail.com.au>
Message-ID: <1145664024.625509.306280@v46g2000cwv.googlegroups.com>
Source record: 60565

Hi

Its a detonation cord to fragment the canopy in case of ejections..

Regards

Tom Ring wrote:
> Tom Ring wrote:
>
> >
> > I have long wondered about the thing that looks like an antenna above
> > the pilot's seat on the plexiglass of fighter planes.
> >
> > I was going to say what type of antenna structure it might be, but I
> > know that I don't have a clue.
> >
> > Anyone here know that is allowed to talk about it?
> >
> > tom
> > K0TAR
>
> I found an example. This is not a picture of the real plane, but is a
> drawing of an F35 JSF canopy.
>

> http://files.turbosquid.com/Preview/Content_on_2_5_2004_08_13_46/F35C08.jpg43721b76-6b00
-45b6-bc84-7a346dd3cd43Large.jpg
>
> tom
> K0TAR

1375. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 00:26:03 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145665562.964175.72930@e56g2000cwe.googlegroups.com>
Source record: 60566

Well, Richard, we have it on good authority that what's really going on
is just mathematical abstraction to 'splain the wave BS. Or something
like that. Whaddaya think? Maybe current and charge are just a
pigment of our imaginations?

Cheers,
Tom

1376. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 00:44:54 UTC
From: amdx <amdx@worldnet.att.net>
Message-ID: <47391$44497c86$45011502$16426@KNOLOGY.NET>
Source record: 60567
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

"switcher" <no@KijkenZeHierOokAlNaar.be> wrote in message
news:no-9BCBA3.18583921042006@ns.stben.net...
> On the picture, you'll see 7 connections for the cables, oe at the
> bottom (7), 6 at the top of the C. How do I need to connect the cables
> to have the maximum out of my AM/SW loop antenna ??
>
> http://users.fulladsl.be/spb13810/amloop/tunablec.jpg
>
>
> I would like to know what I can do with screws A, B, C and D, and of
> course, where to connect the cable ends ...
>
>
>
> I am making one loop with these tools:
> these are the picts:
> http://users.fulladsl.be/spb13810/amloop/loop83cm.jpg
>
> the loop, diameter = 83 cm.
>
> http://users.fulladsl.be/spb13810/amloop/loopbottom.jpg
> The bottom, a plastic case 11 x 18 cm.
>
> http://users.fulladsl.be/spb13810/amloop/loopbottom2.jpg
> The plastic screws that fit the hulahoop.
>
> I will mount the C inside the box, so I'll have no cables outside ...
>
>
> Thanks,
> Marc
>
> --
> een appeltje te schillen met http://applefaulty.be
> http://users.fulladsl.be/spb13810/bwnl.htm
> Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple
kopen)
> http://www.apple.com/nl/support/imac/repairextensionprogram/

1377. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 00:54:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2kvi421von9fc2q8rci11s0ks9fpv1dr0j@4ax.com>
Source record: 60568

On 21 Apr 2006 17:26:03 -0700, "K7ITM" <k7itm@msn.com> wrote:

>Maybe current and charge are just a pigment of our imaginations?

Hi Tom,

I would say that it is not definitely black or white, it is a matter
of gray.

73's
Richard Clark, KB7QHC

1378. Re: Grounding Bar Length For Receiving Only Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 01:02:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124j049q6dm9dbd@corp.supernews.com>
Source record: 60569

n3ox.dan@gmail.com wrote:
> . . .
> A modest radial system will whip a deep ground rod, though. I'm about
> 10% tempted to break out J.D. Jackson' Classical Electrodynamics and
> try to calculate the RF resistance vs. depth of a ground rod, but I
> know it's going to be hard to deadly.
> . . .

If you decide to, I'll be interested in seeing how you do it and what results you get. Reg is the only one I've seen so far who can come up with the impedance of a one-terminal device.

For those of us stuck with needing two terminals to determine a resistance, we find that the RF resistance of a ground rod depends on what's above the ground. That is, the RF resistance of the ground rod is a function of the nature of the antenna. For example, here's the resistance of a four foot ground rod in average soil at 14 MHz, beneath vertical antennas of various heights:

Ant ht ft Ground rod R ohms
16.8 46.2
8.4 34.8
4.2 18.3

These were determined by using NEC-4 and comparing the feedpoint resistance of the vertical over perfect ground with the resistance when connected to a ground rod in average ground. I assume the change in apparent ground rod resistance is due to the change in the field in the ground from the antenna as the antenna height varies.

> Quantitative is always best in this sort of discussion, for sure.

Indeed.

Roy Lewallen, W7EL

1379. mobile loading coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 01:26:01 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <MAf2g.5282$MM6.865@bignews3.bellsouth.net>
Source record: 60570

I want to build some mobile antennas for 10 15 and 20 meters but I am having trouble with the physical design of the coil. My biggest problem is finding readily available material. A shopping list of things to get at the Home Depot would be nice. Antenna would be mounted on my pickup tool box and would like to keep them six ft long so they will fit neatly in the back of the pickup when not in use. I tried this about a year ago and got the antennas to work but the PVC loading coil forms came apart after a while. Any help would be greatly appreciated.

1380. Re: Coax House Panel

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 01:41:08 UTC
From: Buck <not@this.time>
Message-ID: <o62j42d3u8mllmh6b17qs9djc1m265p1g4@4ax.com>
Source record: 60571

On Fri, 21 Apr 2006 22:54:59 GMT, John <JohnASiegel@worldnet.att.net>
wrote:

>I raise the bottom sash of the window and install a metal plate across
>the opening.
>The sash must be sealed to both the plate and to the upper sash to
>prevent leaks. The plate itself is connected to the main shack ground
>just outside. Bulkhead style connectors both UHF and N are used for the
>coax leads. I used an octal socket for the rotor cable and an F
>connector for a power lead to a mast mounted 432 preamp. The point is
>that all the connections can be easily removed if there is lightning in
>the area. I did the same things some years back for my Dad's house in
>Florida; unfortunately this was after having some lightning damage.

I have also done similar, but a little differently. I used two boards
and drilled between them for the wire diameter. This created two
half-holes in the edge of each board. I laid the wires down in the
holes and laid the other board on top. This sorta worked. I still
had to seal between the glass and the top edge of the bottom window
(we had old recessed windows) so I drilled the holes in the floor.

72/73

--
73 for now
Buck
N4PGW

1381. Re: Grounding Bar Length For Receiving Only Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 03:21:03 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zih2g.62755$F_3.3550@newssvr29.news.prodigy.net>
Source record: 60573

Roy Lewallen wrote:
> Reg is the only one I've seen so far who can come up
> with the impedance of a one-terminal device.

How many terminals are there for an EM wave traveling
through empty space?
--
73, Cecil http://www.qsl.net/w5dxp

1382. Re: mobile loading coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 03:41:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <XBh2g.62757$F_3.27505@newssvr29.news.prodigy.net>
Source record: 60574

jimmiefender@bellsouth.net wrote:

> I want to build some mobile antennas for 10 15 and 20 meters but I am
> having trouble with the physical design of the coil.

I've had good luck on those bands using relatively short
lengths of 1.5" diameter, 6 TPI, coil stock and just
tie-wrapping the coil to the middle of the fiberglas rod.
--
73, Cecil http://www.qsl.net/w5dxp

1383. Re: mobile loading coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 06:46:31 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <ehk2g.26021$Kh5.20755@bignews8.bellsouth.net>
Source record: 60575

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:XBh2g.62757$F_3.27505@newssvr29.news.prodigy.net...
> jimmiefender@bellsouth.net wrote:
>
>> I want to build some mobile antennas for 10 15 and 20 meters but I am
>> having trouble with the physical design of the coil.
>
> I've had good luck on those bands using relatively short
> lengths of 1.5" diameter, 6 TPI, coil stock and just
> tie-wrapping the coil to the middle of the fiberglas rod.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Thanks Cecil, I have some old fiberglass 11m antennas, the kind that has a wire antenna heatshrinked to a fiberglass rod that would be pefect for making this.

1384. Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 07:58:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <stSdnV83qvMQf9TZnZ2dnUVZ8qednZ2d@bt.com>
Source record: 60576

Cecil, what formula do you use for the velocity factor of a coil of diameter D, length L, and N number of turns, in metric units if its convenient.

Do you have a formula for the self-resonant frequency?

Reg.

1385. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 10:03:07 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124jvqsh3hooqbc@corp.supernews.com>
Source record: 60577

Richard Fry wrote:
> "Roy Lewallen" wrote:
>> The maximum far field (sky wave) gain of a ground mounted
>> quarter wave vertical over average ground, with a completely lossless
>> ground system, is on the order of 0 dBi, and this occurs at roughly 25
>> degrees above the horizon (both depending on
>> frequency as well as ground characteristics).
> ____________
>
> The above is an understandable conclusion using NEC analysis, however it
> is not supported empirically. If it was, AM broadcast stations would
> perform very much differently than they do.

NEC analysis has been supported many times by measurement and observation.

> The measured data in Brown, Lewis & Epstein's 1937 benchmark paper
> "Ground Systems as a Factor in Antenna Efficiency" proved that the
> *radiated* groundwave field from a vertical monopole working against 113
> buried radials each 0.41 lambda in length was within a few percent of
> its calculated peak value for a radiation pattern with maximum gain in
> the horizontal plane. The path length for the measurement was 0.3 miles,
> which was in the far field of the vertical monopole configurations
> measured.

Yes. The question is what is the calculated value. B, L, and E
normalized their measurements to the unattenuated field strength at one
mile for 1000 watts radiated power. I couldn't find anywhere in their
paper where they explained how they determined the ground attenuation
between the antenna and their observation point.

> BL&E's measurements, and the results of thousands of measurements made
> of the groundwave fields of MW broadcast stations using such radial
> ground systems ever since demonstrate that their peak gain always lies
> in the horizontal plane.

No, the field strength is strongest at low elevation angles only close
to the antenna, as you further explain below.

> It is true that, as a groundwave propagation path becomes longer, the
> field measured at increasing elevations above the earth at distant
> ranges might be higher than measured at ground level at those ranges.
> But that is not because more field was launched by the original radiator
> toward those higher elevations -- it is because the the groundwave path
> has higher losses, which accumulate as that path lengthens. Therefore a
> NEC plot showing the conditions reported in the quote above do not
> accurately depict the elevation pattern as it is launched from the

> radiator, and the groundwave field it will generate.

Of course the standard far field analysis doesn't accurately depict the field close to the antenna -- it's a plot of the field at points very distant from the antenna, as clearly explained in the manual. NEC allows you to include the surface wave if you want, and it accurately shows the total field including the surface wave at a distance of your choice. (Accurate, that is, up to a hundred km or so, beyond which the deviation of the flat ground model from the curved Earth begins affecting results.)

Don't feel bad -- Reg has a lot of trouble understanding this, too.

> There are software programs designed for calculating MW groundwave field
> strength given the FCC "efficiency" of the radiator and the conductivity
> of the path. The radiator efficiency is the groundwave field developed
> by the radiator with a given applied power at a given distance (1 kW @ 1
> km). These values must meet a certain minimum level for the class of
> station. I think in all cases, they must be within ~0.5 dB of the
> theoretical value for a radiation pattern with its peak gain in the
> horizontal plane. In the case of directional MW antennas, this
> performance must be proven by field measurements.
>
> Finally, standard equations show a peak field of ~137.6 mV/m at 1 mile
> from a 1/2-wave dipole radiating 1 kW in free space. The calculated
> groundwave field at 1 mile radiated by 1 kW from a 1/4-wave vertical MW
> monopole over a perfect ground plane is ~195 mV/m. This is the same
> field as generated by the free space 1/2-wave dipole, when all radiation
> is confined to one hemisphere (137.6 x 1.414).
>
> The groundwave fields measured from thousands of installed MW broadcast
> antenna systems confirm that their intrinsic radiation patterns are
> within a fraction of a decibel of that perfect radiator over a perfect
> ground plane, no matter what is the conductivity at the antenna site
> (N.B. Reg).

No, the measured fields from quarter wave broadcast antennas are considerably less than 195 mV/m for 1 kW at one mile, unless perhaps there's only salt water between the antenna and measurement point. As you explained above, the surface wave is attenuated with distance. What you seem to be missing is that the attenuation is strongly dependent on ground conductivity (between antenna and measurement point, not just at the antenna site) and frequency, so the actual field strength at one mile for 1 kW radiated will always be considerably less than the perfect ground case. The 195 mV/m and associated values for various antenna heights is the "unattenuated" or "inverse" field, which doesn't include the surface wave attenuation beyond simple inverse distance field strength reduction. It's the field strength you'd get if the ground between antenna and measurement point were perfect, not what you get over real ground. I'm not very conversant with FCC antenna measurement methodology, but somewhere the measured field strength is normalized to the unattenuated field strength by fitting to a ground attenuation

curve, which in turn depends on frequency and ground conductivity. (I've been told that this is the way broadcasters determine ground conductivity -- by seeing how far the measured field strength deviates from the unattenuated value.) I believe that the surface wave attenuation curves used by the FCC are from the 1937 I.R.E. paper by K.A. Norton. That paper is also the basis for NEC's surface wave calculations.

Roy Lewallen, W7EL

1386. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 10:56:04 UTC
From: Stevo <stevo69@hotmail.com>
Message-ID: <NYn2g.1353$Eo.218@fe09.lga>
Source record: 60578
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Tony Roma wrote:

>On Wed, 19 Apr 2006 20:54:39 GMT, Skirt Chaser <my.em@il.dont.work>
>wrote:
>
>
>
>>I know you're all going to disagree
>>with me, but a man touching and sucking on another man's cock and fucking
>>his ass just ain't right.
>>
>>
>
>You said a mouthful. Oh and I agree with you. It just aint natural! I
>mean imagine a guy sucking on my cock. what am I supposed to do, come
>in his mouth??? Very disturbing!
>
>
>
Again??

1387. HF Receiving Antenna & Grounds Question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 11:52:09 UTC
From: Robert11 <rgsros@notme.com>
Message-ID: <Z4qdnVZjEsh_hdfZRVn-rw@comcast.com>
Source record: 60579

Hi,

In the category of "why the heck didn't I do that years ago," thought I'd relate my experience with a new HF receiving only antenna. Have a JRC 545.

Up to now, have had a simple random length wire running around the four sides of my attic.
Worked, and was able to receive many stations, but was always disappointing.

Bought the PAR EF-SWL antenna, and just put it up outside as an Inverted-L, and away from the house by
about 75 feet or so. Coax run-in to the receiver.
Wow, what an incredible difference.
The noise level is way, way down.

Question; The PAR ends in a Balun, from which I have a wire to a ground bar I pounded into the ground next to it.
From there, the coax starts.

I also have a chassis ground from the radio to a nearby cold water pipe.
Have been putting it on and off trying to decide if it helps to have this additional ground, or hurts.
There is of course the ground loop questions, etc. about having two grounds (the earth ground by the Balun, and this one to the cold water pipe)

Hate to admit it, but am having trouble deciding if it helps.
At times, and for different freq's, I sort of think it
either helps, or makes no difference, at other time, perhaps a bit more noisy.

Most of the time, I believe, it makes absolutely no difference whether this chassis receiver ground wire is on or off.

**Anyone have any thoughts or comments regarding having this additional ground ? **

Should it make a difference ?
I tend to think it shouldn't matter, as they usually suggest grounding the coax, Also, right where it enters the house, which would
be pretty much equivalent.

There is, of course, also the grounding pin of the AC power line, which, pretty much ends up at the same
place, namely a cold water pipe via a ground/neutral wire, from the AC Service Box.

Curious about what all you experts think re these configurations.
Not too sharp with this, and would appreciate any thoughts on.

Thanks,
Bob

1388. Re: Must 300 ohm feedline be kept completely clear of contact w anything?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 11:56:28 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <SMydnaOmbp12hNfZRVn-vQ@comcast.com>
Source record: 60580

A much simpler antenna is possible at your QTH, based on iteration #4.

Feed your 110 feet long antenna in the center with 600 ohms open wire
tuned feeders [or 450 ohm ladder line ... however, 450 ohm line is more
lossy in bad weather]. You can twist the ladder line at 1 turn every two
feet, or the open wire line 1 turn in 4 feet, to accommodate any
imbalances cause by nearby objects.

If your MFJ 949E does not have a balanced output then use a short
section of coax, 2 to 3 feet is PLENTY, to connect between the MFJ949E
and a MFJ 912 Balun, and then to the tuned feeders.

This is a very low loss setup that should work the following bands with
good to very good antenna efficiency: 80/75, 60, 40, 30, 20, 17, 15, 12
and 10 meters. [My setup, very similar, has a maximum of 1.4 dB loss
across this set of bands using 150 feet of feedline ... 1/4 of an S unit.]

NOTE: The G5RV is in reality a single band antenna!! It is designed for
20 meters where it performs admirably! It can be tuned to work other
bands. However the losses in the coax section can become moderately
high. The CF Doublet with tuned feeders has much lower feedline losses.

Thomas anonymous wrote:
> I agree, however in my current situation I really can't keep going up
> and down to the roof because I'm renting a suite in the basement and
> I'm already pushing things with all the feedlines and isopole VHF
> antennas already up there. The landlord is a really decent guy and has
> been totally reasonable --- so far. If I keep wanting to do more and
> more he's going to feel obligated to say no sooner or later.
>
> There's another issue, though, a more important one --- I moved the
> feedpoint to the SW corner of the roof (pic at
> http://members.shaw.ca/cyberhun/ham.htm) and used coax for the
> feedline. But when I was up there, I was so freaked out by the height
> that I forgot to waterproof the termination --- but I'm not going back
> up there til I can figure a way to do it more securely. It doesn't
> matter how many guys are holding the bottom of the ladder. If it
> starts to slide one way or the other, there's too much leverage for
> anyone to stop it. Water damage be damned, a fall from that height
> could be deadly.
>
>

1389. Re: Antennas (?) on military planes

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 13:16:35 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <444a2cb3$0$1007$39cecf19@news.twtelecom.net>
Source record: 60581

JWCook wrote:

> Hi
>
> Its a detonation cord to fragment the canopy in case of ejections..
>
> Regards
>
>

Thanks. Now if I could find a video of it going off....

tom
K0TAR

1390. Re: fun with loading

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 13:56:26 UTC
From: Dave <noone@nowhere.com>
Message-ID: <RoednXPatrmOq9fZ4p2dnA@crocker.com>
Source record: 60582

"K7ITM" <k7itm@msn.com> wrote in message
news:1145574097.366004.242460@u72g2000cwu.googlegroups.com...
> So Dave, have you built a NEC model of the antenna? Do you know that
> the loading stub really has unequal currents on its two legs? Since
> that current is fairly close to the element itself, is the net current
> (the antenna current) on the stub in phase with or out of phase with
> the element current? What about the efficiency reported by NEC--if you
> use zero loss conductors versus the loss of the actual aluminum used in
> the antenna?

no, i don't own nec, and don't know enough about it's methods or limitations to trust just throwing together a model to play with on any free version i could get. i have done enough modelling professionally with tools like ansoft/maxwell (for quasi static e-fields), EMTP (for power line transients), TFlash (for lightning transients on power lines), Simulink and EASY5 (electro-mechanical control systems), and some other tools, that i know that if you don't know your tool and it's limitations that any result you generate is questionable. besides, i have enough other things to do this summer putting up new antennas and using them... not enough time to second guess every design out there, I made my choice and I'll take my chances... but the 40m4LLDD i put up last year at 105' seemed to work well over the winter, and much better than the 40-2cd it replaced.... (compared over almost a year now against another 40-2cd that hasn't been moved)... so now i'm replaceing the other 40-2cd with a second 40m4LLDD at 175'. if nothing else it will look impressive, and thats worth 3db or more in the operator's belief that they are loud.

1391. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 14:03:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <PIq2g.62788$F_3.6066@newssvr29.news.prodigy.net>
Source record: 60583

Reg Edwards wrote:
> Cecil, what formula do you use for the velocity factor of a coil of
> diameter D, length L, and N number of turns, in metric units if its
> convenient.

Reg, it's equation (32) from Dr. Corum's paper at:

http://www.ttr.com/TELSIKS2001-MASTER-1.pdf

There is a test in the preceeding paragraph to see if
that equation is appropriate for a particular coil.
Equation (32) is derived from empirical data collected
on coils that pass that test.

Just be sure the diameter, pitch, and wavelength are
all in meters and it will be metric.

I'll send you a .gif file of that page of Dr. Corum's
paper. The graph in Fig. 1 is for equation (32).

While you are at it, take a look at equation (47) for
the characteristic impedance of the coil and let us
know what you think.

> Do you have a formula for the self-resonant frequency?

Here's what I have been doing lately:

1. Using as close as EZNEC can come to my 75m bugcatcher
coil stock, create enough turns for the modeled coil to
be self-resonant on 4 MHz. My 75m bugcatcher coil stock
is ~0.5 ft diameter and 48 turns per foot.

2. Delete enough turns to make it look like my real-
world bugcatcher coil. Use that coil for EZNEC modeling
at 4 MHz.

3. Assume the velocity factor didn't change appreciably
when deleting those turns.

4. Calculate the number of linear feet occupied by the
coil by dividing the length of the coil by the velocity
factor.

5. Calculate the percentage of a wavelength occupied by
the coil by dividing the results of (4.) above, by 246
feet, a wavelength at 4 MHz.

Of all the measurements and modeling so far, this is what
I have come up with as the most accurate estimate of the
percentage of a wavelength occupied by the coil.

And no, it is not 90 degrees minus the rest of the antenna.
The requirement for a purely resistive feedpoint impedance
is that the superposition of the forward and reflected voltages
have the same phase angle as the superposition of the forward
and reflected currents - nothing more.
--
73, Cecil http://www.qsl.net/w5dxp

1392. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 15:15:48 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <124ki4rql72uv5c@corp.supernews.com>
Source record: 60584

Dear Crew:
What may have been lost in this discussion - but often provided by Roy - is the difference between a true surface wave and a sky wave (from the same vertical antenna).

An excellent ground screen at the base of a vertical antenna reduces the losses and thus increases the amplitude of both the surface and sky wave.

A few to several hundred wavelengths from the vertical antenna, the amplitude of the received surface wave is highly dependent on the conductivity of the intervening earth. One could hedge this a bit for frequencies above something like 5 MHz.

At distances from the antenna where the surface wave has become weak, the sky wave dominates. As Roy has pointed out several times: the amplitude of the sky wave is mostly determined by ground properties distant from the antenna - much farther away than any reasonable ground screen will extend.

The sky wave effect may be demonstrated in NEC by effecting a 0.25 WL vertical with a good set of radials over mediocre ground and then changing the ground, at some distance from the antenna, to salt water. (Visualize the antenna being in the center of a circular island and change the diameter of the island.)

Broadcasters at MF, with some exceptions, are interested in maximum surface wave and minimum sky wave. Radio amateurs, for the most part, are interested in maximizing the sky wave. A good radial system assists the radio amateur's goal by improving the overall efficiency. It is the ground distant from the vertical antenna that determines the sky wave.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

1393. Re: HF Receiving Antenna & Grounds Question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 16:04:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ookk42htloh32jfb712on3k17r2m042sj8@4ax.com>
Source record: 60586

On Sat, 22 Apr 2006 07:52:09 -0400, "Robert11" <rgsros@notme.com>
wrote:

>Hate to admit it, but am having trouble deciding if it helps.

Hi Bob,

That pretty much defines it, then: no difference.

>Should it make a difference ?

When you moved your antenna away from the source of local noise, your
house, that was the single most difference you could have expected.

>There is, of course, also the grounding pin of the AC power line, which,
>pretty much ends up at the same
>place, namely a cold water pipe via a ground/neutral wire, from the AC
>Service Box.

ALL grounds should go to that connection, even the remote one (and not
through the coax). The addition of that one won't make any DXing
difference, but it is code. It will prevent ground loops, whose
problems run from obnoxious to dangerous.

73's
Richard Clark, KB7QHC

1394. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 16:04:59 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <444A5440.C0E242C4@shaw.ca>
Source record: 60585
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

switcher wrote:
>
> On the picture, you'll see 7 connections for the cables, oe at the
> bottom (7), 6 at the top of the C. How do I need to connect the cables
> to have the maximum out of my AM/SW loop antenna ??
>
> http://users.fulladsl.be/spb13810/amloop/tunablec.jpg
>
> I would like to know what I can do with screws A, B, C and D, and of
> course, where to connect the cable ends ...
>
> I am making one loop with these tools:
> these are the picts:
> http://users.fulladsl.be/spb13810/amloop/loop83cm.jpg
>
> the loop, diameter = 83 cm.
>
> http://users.fulladsl.be/spb13810/amloop/loopbottom.jpg
> The bottom, a plastic case 11 x 18 cm.
>
> http://users.fulladsl.be/spb13810/amloop/loopbottom2.jpg
> The plastic screws that fit the hulahoop.
>
> I will mount the C inside the box, so I'll have no cables outside ...
>
> Thanks,
> Marc
>
> --
> een appeltje te schillen met http://applefaulty.be
> http://users.fulladsl.be/spb13810/bwnl.htm
> Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
> http://www.apple.com/nl/support/imac/repairextensionprogram/

The capacitor device is very common in most portable radios. It has two sections for AM tuning, and two for FM tuning. The 'screws' adjust trimmer capacitors which are in parallel with the four main capacitors.

You do not specify what frequency you intend to tune the loop to. If you want it for a band of frequencies what range to you plan to cover. I suggest that you take some alligator clip leads and temporarily hook up the loop to one end of each lead. Then try connecting the other ends to different terminals on the capacitor and tune the cap through its range and listen for an increase in noise at the receiver. You will have to tune very slowly as the high Q of

the loop will make the selectivity very sharp and you can miss the noise point easily.

You would be much better off to get some ham to give you a small variable from his junk box. It will work better and will be much easier to mount in the case. With a one meter loop, a capacitor with a value of 100 pf or less should beable to tune between about 7 and 30 mhz.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

1395. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 16:20:11 UTC
From: w8ji@akorn.net
Message-ID: <1145722811.612125.89720@j33g2000cwa.googlegroups.com>
Source record: 60587

J. Mc Laughlin wrote:
> Dear Crew:
> What may have been lost in this discussion - but often provided by Roy -
> is the difference between a true surface wave and a sky wave (from the same
> vertical antenna).
SNIP
> Broadcasters at MF, with some exceptions, are interested in maximum
> surface wave and minimum sky wave. Radio amateurs, for the most part, are
> interested in maximizing the sky wave. A good radial system assists the
> radio amateur's goal by improving the overall efficiency. It is the ground
> distant from the vertical antenna that determines the sky wave.

I have a dipole at 130 feet over a ground screen of 50 radials at least 150 feet long. I have a drooping dipole at 310 feet (ends about 225-250 feet high) and a 195-foot tall 1-foot face series fed tower with 100 200-foot long radials. My soil is red clay under thin topsoil, rolling pasture land and woods.

My friend in Australia has a 40 foot vertical with a top loading coil and a large tubing hat above the coil with 40-50 1/4 wave radials, and a dipole at 100 feet. His soil is terrible.

In many years of blind A-B tests, I find my high dipole barely beats the vertical at distances over a few hundered miles broadside to the dipole, and of course never beats the vertical off the ends of the dipole.

The low dipole (130 feet high) virtually never beats the vertical except within a few hundred miles. The very best it does at a distance is tie the vertical, and only on very rare occasions that mostly occur during geomagnetic storms or at sunrise during strong propagation peaks. The vertical always has less fading.

The VK's signal is most commonly better on his vertical, although he frequently is better on his dipole. Certainly some of that is the lack of vertical antenna efficiency caused by low high and exceptionally poor soil in the Fresnel zone.

I've done thousands of blind AB and ABC tests with stations at many distances, and find the same results.

73 Tom

1396. Re: Grounding Bar Length For Receiving Only Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 17:03:25 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145725405.471623.300800@u72g2000cwu.googlegroups.com>
Source record: 60588

Right, the question of what the RF resistance of a ground rod doesn't
make sense without the antenna.

What happens if you change the ground rod length to 8 feet and feed
each of those antennas against it?

Dan,
N3OX

1397. Re: HF Receiving Antenna & Grounds Question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 18:23:24 UTC
From: w8ji@akorn.net
Message-ID: <1145730204.163446.14200@j33g2000cwa.googlegroups.com>
Source record: 60589

Robert11 wrote:
> Question; The PAR ends in a Balun, from which I have a wire to a ground bar
> I pounded into the ground next to it.
> From there, the coax starts.
> **Anyone have any thoughts or comments regarding having this additional
> ground ? **
>
> Should it make a difference ?

You should always isolate the (poor) remote ground of an antenna used
for receiving from the station. There is no code that says it should be
connected to the station.
I isolate the grounds of my Beverage feedpoints from the feedlines,
even though they are thousands of feet from power lines.

The code problem is with grounds at your house, not with the ground at
the antenna. NEC requires all cables entering the house and all grounds
at the house to be bonded to a common point. You should not have a rod
outside for the hamshack ground that is not bonded to the utility
entrance ground. The logic behind this is any surges or lightning hits
will not elevate the two grounds to different potential, and create a
current path flowing through the house.

This is NOT a problem with the ground at the antenna, assuming that
ground is some distance from the house and you have a reasonable length
feedline to the house. What you should NOT do is float the station
without a ground, and you should not have the ground for the station
float independently from the service entrance ground.

If you see a noise change from adding a ground at the house it means
you have a feedline problem, radio problem, or balun or ground quality
problem at the antenna.

You might look at:

http://www.w8ji.com/noise.htm

73 Tom

1398. Re: Vertically Polorized Omni Slot Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 19:41:58 UTC
From: Hi <no@spam>
Message-ID: <124l1ochpbusd95@corp.supernews.com>
Source record: 60590

>>This is a horizontally powerized omni slot antenna.
>>http://tinyurl.com/kbwkf
>>Does anyone know if its possible to make a
>>vertically polerized omni slot antenna?
>>Matt
>
> One can be made, but the slots have to be
> oriented at a slant on the waveguide. The
> trick is to make alternate slots radiate
> the horizontal component of their slanted
> polarization out of phase but have the
> vertical component radiated in-phase. This
> is a bit tricky and requires a detailed
> knowledge of the standing-wave pattern inside
> the waveguide at the frequencies of interest
> (and therefore is left as an exercise for the
> student).

Do you know of any websites or books that might have further info on this?

Thanks.

Matt

1399. Re: Coax Question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 19:45:57 UTC
From: dons@yahoo.com
Message-ID: <444a879f.3999812@news.west.cox.net>
Source record: 60591

Irv,

Don't plant your coax cables too close together or they won't grow
properly!

(Don - guess who?)

On Tue, 18 Apr 2006 21:20:31 GMT, Irv Finkleman <finkirv@shaw.ca>
wrote:

>Robert11 wrote:
>>
>> Hello:
>>
>> Have started running cvoax from a receve-only antenna to the house.
>> The coax has a Polyethylene (PE) Outer jacket.
>> With this PE jacket, it's upposed to be buriable.
>>
>> It's becoming a real job for me at my age to dig a slit trench, even a
>> shallow one.
>> But, I can easily just lay the coax on the surface, without any reql danger
>> of anyone
>> stepping on it, etc. It's in a pretty out of the way area.
>>
>> I realize that burying it is undoubtedly best, but in a practical
>> sense, how well does a PE outer jacket stand up if just laying on the ground
>> ?
>> Would be subjected, of course, to rain, and also buried in snow during the
>> winter.
>>
>> Again, it's receive only.
>>
>> Thanks,
>> Bob
>
>I've had coax running though my yard for the past five or six years. It was
>just laid across the grass. Gradually it worked it's way out of sight and
>show's no sign of deterioration (electrically). We use the yard a lot, I
>mow over it, water it, herbicide it, and everything. It survives the harsh
>Alberta winters, wet springs, and all. It was just some RG-213 that I picked
>up at a flea market!!!!
>
>Irv VE6BP
>--
>-------------------------------------

>Diagnosed Type II Diabetes March 5 2001
>Beating it with diet and exercise!
>297/215/210 (to be revised lower)
>58"/43"(!)/44" (already lower too!)
>-------------------------------------
>Visit my HomePage at http://members.shaw.ca/finkirv/index.html
>Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
>Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
>--------------------
>Irv Finkleman,
>Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
>Calgary, Alberta, Canada

1400. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 19:51:04 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-C52E86.21510422042006@news.stben.net>
Source record: 60592
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <444A5440.C0E242C4@shaw.ca>, Irv Finkleman <finkirv@shaw.ca>
wrote:

> With a one meter loop, a capacitor with a value of 100 pf
> or less should beable to tune between about 7 and 30 mhz.

A 80 cm loop gives me reception between about 5 and 12 Mhz, this is with
a cap from a FM/AM radio kit ...
http://users.fulladsl.be/spb13810/oc/IMAG0018.JPG

So, to have higher freq, the loop should be made smaller ... (or higher
cap ?..)

I have made a loop (single turn too) of 2 X 3 meter, so its diameter is
close to 2 meter, and it gives me about 3? to 6Mhz ... African stations
on 5000-5100 come in very well here near Ypres / Belgium .... (at night)
http://users.fulladsl.be/spb13810/oc/IMAG0017.JPG

I used the 2 meter loop with 3 turns on 1600-1800khz, I could get a lot
of pirate stations from holland and ?? Greece or Serbia ...(at night)
Just turn the loop about 90? to switch between holland and Greece ...

In fact, yesterday I read a wiki about "large" loops (compared to freq,
they are large), on FM. I tried the 80cm loop on FM, and ... oops, it
is very directional, very good... I found stations I haven't had before
...

cite: "The (large) loop antenna is similar to a dipole, except that the
ends of the dipole are connected to form a circle, triangle (delta loop
antenna) or square. Typically a loop is a multiple of a half or full
wavelength in circumference. A circular loop gets higher gain (about
10%) than the other forms of large loop antenna, as gain of this antenna
is directly proportional to the area enclosed by the loop, but circles
can be hard to support in a flexible wire, making squares and triangles
much more popular. Large loop antennas are more immune to localized
noise partly due to lack of a need for a groundplane. The large loop has
its strongest signal in the plane of the loop, and nulls in the axis
perpendicular to the plane of the loop."

from
http://en.wikipedia.org/wiki/Antenna_%28electronics%29

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)

http://www.apple.com/nl/support/imac/repairextensionprogram/

1401. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 20:47:51 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <AfudnbRhAbrlC9fZRVn-jg@adelphia.com>
Source record: 60593

Cecil Moore wrote:
> "Michael Coslo" <mjc5@psu.edu> wrote:
>
>>Back on topic now. Was there ever any correlation between the
>>measurements made by Cecil and Yuri with the information and tests
>>performed by Tom W8JI? I had asked the question a couple times, but have
>>no answer yet. Maybe the message got lost.
>
>
> Might have been when I was out of town. Except for a
> single toroidal coil anomaly, all of the measurements
> show a different magnitude of current at the two ends
> of the coils. Most of my measurements have been at
> the self-resonant frequency of a loading coil.

That isn't the design frequency though, is it?

> A 75m mobile bugcatcher coil is part of a standing wave
> antenna with near-equal forward and reflected currents
> flowing in opposite directions (phasors rotating in
> opposite directions). As a result, the standing wave
> current on the antenna has essentially the same phase
> as the source current all up and down the antenna
> *whether a loading coil exists or not*. Standing wave
> current on a mobile antenna cannot be used to measure
> phase shift or delay through a wire or a coil.
>
> That standing wave current is of the form,
> I = Io*cos(kx)*cos(wt), and cannot be used to determine
> phase shift. So the major measurement mistakes were
> not in the magnitudes, which are relatively easy to measure,
> but in the phase-delay measurements, which were invalid.
>
> The major conceptual mistake concerns standing waves,
> not coils. It appears that some people didn't even realize
> that they were dealing with a standing wave current on a
> standing wave antenna.
>
> The best estimates of actual delays through the coils seems
> to come from the Dr. Corum IEEE paper where formulas
> are given for the VF and Z0 of a coil. For the particular
> coil being modeled in EZNEC, the VF formula yields
> ~0.02, or about 37 degrees for a 6" long coil on 4 MHz.

I'm not sure I have this straight. I think I understand Tom's info, yet this has me completely baffled.

Would the short answer be that you do not find any correlation?

- 73 de Mike KB3EIA -

1402. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 21:44:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9tx2g.51040$_S7.28413@newssvr14.news.prodigy.com>
Source record: 60594

Mike Coslo wrote:
>> Most of my measurements have been at
>> the self-resonant frequency of a loading coil.
>
> That isn't the design frequency though, is it?

No, so I changed my approach. My present approach is to
take a self-resonant coil and use only part of the coil
on the *same* frequency, e.g. use half the coil as a loading
coil on the *same* frequency. That way, the velocity factor
should be roughly the same in either case.

> I'm not sure I have this straight. I think I understand Tom's info,
> yet this has me completely baffled.

I accept his magnitude measurements as probably accurate
and reasonable. His phase measurements were meaningless
since standing wave current phase doesn't change relative
to the source and therefore cannot be used to measure phase
shift along a wire or through a coil.

The standing wave current phase is the same from end to
end in a 1/2WL thin-wire dipole. It cannot be used to
determine the phase shift through a wire or a dipole. EZNEC
reports the same thing. This is key to understanding the
misconceptions involved and why the phase measurements were
meaningless.

> Would the short answer be that you do not find any correlation?

Nobody has made a valid measurement of the delay through
a coil. There's nothing to correlate. One cannot use a signal
with unchanging phase to measure that delay.
--
73, Cecil http://www.qsl.net/w5dxp

1403. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 22:00:23 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <444AA78C.993E376@shaw.ca>
Source record: 60595
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

switcher wrote:
>
> In article <444A5440.C0E242C4@shaw.ca>, Irv Finkleman <finkirv@shaw.ca>
> wrote:
>
> > With a one meter loop, a capacitor with a value of 100 pf
> > or less should beable to tune between about 7 and 30 mhz.
>
> A 80 cm loop gives me reception between about 5 and 12 Mhz, this is with
> a cap from a FM/AM radio kit ...
> http://users.fulladsl.be/spb13810/oc/IMAG0018.JPG
>
> So, to have higher freq, the loop should be made smaller ... (or higher
> cap ?..)
>

Make the cap smaller. You can if you put a similar cap in series with
the first you will reduce the total capacity and raise the resonant frequency.
Changing loop length is too much trouble, changing a cap is easy.

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
---
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

1404. Re: EZNEC Vertical interpretation

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-22 23:24:14 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97ADA6DA6AD74doldridgsprintca@64.59.135.159>
Source record: 60596

"Cecil Moore" <mycall@arrl.net> wrote in news:JbR1g.62010$F_3.14225
@newssvr29.news.prodigy.net:

> "John Ferrell" <johnferrell@sprintmail.com> wrote:
>> I don't find the Helix feature in my copy of EZNEC+ V4.
>> I believe I can get the same results by inserting an appropriate load.
>> It will just be a little more cumbersome.
>
> The helix feature is found under the Wires window under the create
> menu. But it is somewhat complicated. A lumped inductance load
> will get you started.
>
> The problem with feeding an impedance of 1.2-j1400 ohms is
> getting power into the antenna without dissipating most of it
> in the matching network.

A funny anecdote comes to mind in this connection. I was trying desperately to load a very short helical dipole on 40M and ended up hooking it to my old Dentron 1KW matchbox to see if that could do anything with it. Damn antenna loaded up perfectly. SWR at on the line to the matchbox 1.1 to 1, good power transfer at 25 watts from the exciter. So I went to listen with it. NOTHING! NADA! Not even a dit, even though the big vertical array just hummed with CW signals on the band. So I leaned over to check connections and darn near fried my hand on the case of the Dentron. THAT'S where all the watts were going. Damn tuner was loading its own case!

--
Dave Oldridge+
ICQ 1800667
VA7CZ

1405. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 01:10:35 UTC
From: w8ji@akorn.net
Message-ID: <1145754635.582153.250030@t31g2000cwb.googlegroups.com>
Source record: 60597

Cecil Moore wrote:
> Richard Clark wrote:
> > Neither Cecil nor Yuri made any measurements.
>
> I made self-resonance measurements on loading coils
> and standing wave current measurements on a 6m dipole.
> W8JI said my measurements were in error. W7EL said
> my measurements agreed with EZNEC.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Cecil, Cecil, Cecil! Shame on you. When will you ever quit changing
what other people say?

1406. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 01:18:02 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <eBA2g.5379$Dv6.1029@tornado.tampabay.rr.com>
Source record: 60598
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Fred" <freddyr1928@ll.net> wrote in message
news:irbe42thm0v3f33jbm31logq7gjgsio4em@4ax.com...
> On Wed, 19 Apr 2006 20:54:39 GMT, Skirt Chaser <my.em@il.dont.work>
> wrote:

<big snip>

> I know a gay couple and they are not in your face. In fact... oddly
> enough they don't support gay marriage or all the other liberal
> nonsense. They are quite conservative. They also don't claim they have
> some bullshit scientific right to do what they do. It is only the
> retarded flakes like HIV-Markytard that ruin it for the rest of them.

I know a man who smoked 3 packs of cigarettes a day and lived to be 94.
Your point?

west

1407. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 02:12:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <toB2g.18957$tN3.337@newssvr27.news.prodigy.net>
Source record: 60599

w8ji@akorn.net wrote:
> Cecil Moore wrote:
>>I made self-resonance measurements on loading coils
>>and standing wave current measurements on a 6m dipole.
>>W8JI said my measurements were in error. W7EL said
>>my measurements agreed with EZNEC.
>
> Cecil, Cecil, Cecil! Shame on you. When will you ever quit changing
> what other people say?

Replying to my measurements, here are your words and W7EL's words:

>>W8JI wrote on 3-16-06:
>>> Your measurements are probably wrong. ... After we resolve the
>>> error in current, we can move on.

I repeat: "W8JI said my measurements were in error."

>>>W7EL replied on 3-16-06:
>>>> The measurement looks good to me. The phase is exactly what EZNEC
>>>> predicts -- constant along the wire.

I repeat: "W7EL said my measurements agreed with EZNEC."

begin quote of entire posting from 3-16-06:
****
w8ji@akorn.net wrote:

> Cecil Moore wrote:
>
>> Note that at the frequency where the dipole is 1/2WL and resonant,
>> it is 180 feet long and 180 degrees long so the number of feet of
>> wire is also the number of degrees of antenna. Here is my 1/2WL
>> dipole with current pickup coils installed at points 'x' and 'y' and
>> FP is the feedpoint,the impedance of which is 60 ohms.
>>
>> ------------------------------FP-------x---------------y-------
>>
>> Total length is 180 feet. The distance between 'x' and 'y' is 45 feet.
>> Since feet = degrees in this case, the number of degrees between
>> 'x' and 'y' is known to be 45 degrees from antenna theory. Those
>> 45 degrees are what I am going to attempt to replace with a coil.
>>
>> So I adjust the feedpoint current to one amp at a reference phase
>> angle of zero degrees and measure the current at 'x' and the current
>> at 'y'. The current at 'x' is 0.92 amp at 0 deg. The current at 'y' is

>> 0.38 amp at 0 deg. Already I am not understanding my measurements.
>
>
> Your measurements are probably wrong.
>
> When did you measure that? After we resolve the error in current, we
> can move on.

The measurement looks good to me. The phase is exactly what EZNEC predicts -- constant along the wire. The ratio in magnitudes we'd expect depends on the positions along the wire, not just the spacing.

Roy Lewallen, W7EL
****

1408. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 04:22:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <a_6dnRLbkPkMnNbZnZ2dnUVZ8qWdnZ2d@bt.com>
Source record: 60600

"Ian White GM3SEK" wrote
> There isn't really "an" equation for gain versus boom length,
because
> boom length is only an indicator of the potentially achievable gain.
But
> nothing "makes" a yagi deliver any particular gain figure.
>
==========
Ian,

Yes, there must be such an equation. Indeed, there must be a dozen of
them.

I am aware that there are a multitude of things which are, or can be
optimised in the design of Yagis.

I am not interested in how gain can be maximised but what it has
actually turned out to be in practice over the years.

It is a statistical function of the number of elements or of boom
length - which are much the same as each other.

It is just a historical fact which all experienced designers must have
a good idea of but, it seems, are reluctant to divulge.

You probably have a good idea yourself. What is it?

For 2, 3, 4 .... N elements?

Ball park accuracy is too good for it.

I would like to include it in the notes to a practical, general
purpose, computer program which estimates received signal strength
from Tx power and ionospheric radio path distance. It could be titled
"How to use S-meters for Novices". ;o)

Reg.

1409. Antenna love!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 05:07:30 UTC
From: CeeTee <260253@xtra.co.nz>
Message-ID: <oYD2g.16009$JZ1.612462@news.xtra.co.nz>
Source record: 60601

Two antennas met on a roof, fell in love and got married. The ceremony wasn't much, but the reception was excellent!!

1410. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 08:25:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <R6mdnatFYPb2p9bZRVnysA@bt.com>
Source record: 60602

Dear Cec,

After 3/4 of a bottle of Australian Cabernet Sauvignon, I plucked up sufficient courage to present my printer with Corum's paper.

Lo and behold, it worked perfectly. Even the small amount of color was accurately reproduced.

After speed-reading it I came to the conclusion it is unnecessarily over-complicated. What on Earth does "Voltage Magnification by Coherent Spatial Modes" mean?

For years, my approach to loading coils at HF has been to calculate the inductance and capacitance per unit length of coil from DC principles. And then calculate the velocity factor and Zo from transmission line principles. Which gives results in the right ball park according to what few experiments I have made with actual anennas and helices on the 160 and 80 meter bands.

Then there was G3YXM who deliberately put more turns on the coil on the grounds it was easier to remove them than add to them in case pruning was required. Pruning was required and he ended up by removing all the excess turns.

Have you compared VF's (a critical parameter) in my programs with Corum's values for close-wound coils of usual proportions? I must try to find time to do it myself.

Thanks very much for posting me Corum's paper. I am pleased to see the University of Nis has not been seriously affected by the bombing and guided missiles during the US Yugoslavian attacks. Have the bridges across the Danube been replaced yet?

Reg.

1411. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 08:57:09 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <wLpLupFlF0SEFAtm@ifwtech.co.uk>
Source record: 60603

Reg Edwards wrote:
>
>"Ian White GM3SEK" wrote
>> There isn't really "an" equation for gain versus boom length,
>because
>> boom length is only an indicator of the potentially achievable gain.
>But
>> nothing "makes" a yagi deliver any particular gain figure.
>>
>=====================================
>Ian,
>
>Yes, there must be such an equation. Indeed, there must be a dozen of
>them.
>

What I was trying to say was that there is not any single equation relating gain to boom length. In the normal sense of the word "equation", there is no equation at all.

>I am aware that there are a multitude of things which are, or can be
>optimised in the design of Yagis.
>
>I am not interested in how gain can be maximised but what it has
>actually turned out to be in practice over the years.
>
Ah, then you don't really want equations at all - you want historical anecdotes.

Years ago, I used to collect gain data for long yagis... or at least, such verifiable data as were available at the time... and plotted all the dBd figures on the same piece of graph paper against log(boom length).

The result was a scatter diagram showing a general increase of gain with boom length. For well-designed families of long yagis (eg the DL6WU series) it was possible to draw a good straight line; but there were always a few yagis above that line, and many poorer designs below it.

>It is a statistical function of the number of elements or of boom
>length - which are much the same as each other.
>
It isn't "statistical" in any strict sense of that word. It's just a collection of various isolated individual attempts to make a decent yagi, and all the data include significant measurement errors.

>It is just a historical fact which all experienced designers must have
>a good idea of but, it seems, are reluctant to divulge.
>
Largely because it's all much less meaningful than you imagine.

>You probably have a good idea yourself. What is it?
>
This was before the Internet and before computer modelling, so all I have is an old piece of graph paper. I stopped adding to it in about 1985, when computer modelling became capable of far higher accuracy than amateur measurements.

If anyone wants to try a modern correlation, there's lots of data in the VE7BQH collection:
http://www.ifwtech.co.uk/g3sek/diy-yagi/ve7bqh.htm

VE7BQH's data are all for yagis that might be useful for VHF/UHF moonbounce, so boom lengths start at 1.8wl and range up to 8wl. (This turns out to be no use to Reg - see later - but it's an interesting topic in its own right.)

If anyone is interested in doing it, use the L(WL) and GAIN(dBd) columns. With Excel, it should take all of ten minutes to get the data from the web page and into a "scatter X-Y" graph.

All of these modern long yagis are the results of computer optimization, by people who already know what other designs are achieving. This tends to make all the results bunch closely around the trend-line for the best available performance. Unlike my old plot of stone-age yagis, very poor designs don't make it into VE7BQH's table at all.

Back to Reg:
>For 2, 3, 4 .... N elements?
>
>Ball park accuracy is too good for it.
>
For short yagis, why not use the figures in N6BV's HFTA program? (ARRL Antenna Handbook)

Antenna dBi Boom length @ 14MHz (ft)
Dipole 2.15 -
2-Ele. 5.5 8
3-Ele. 7.0 16
4-Ele. 8.5 26
5-Ele. 9.5 40
6-Ele. 11.0 60
8-Ele. 12.0 80

That is a fair set of "representative" figures.

>I would like to include it in the notes to a practical, general
>purpose, computer program which estimates received signal strength
>from Tx power and ionospheric radio path distance. It could be titled
>"How to use S-meters for Novices". ;o)

So - finally - it all comes out. If the context is "ionospheric", you're not interested in long yagis at all. Why didn't you say so in the first place?

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1412. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 10:04:11 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <upjm42tmvdsno7e7keule46e6dp1p6gl7l@4ax.com>
Source record: 60604

On Sun, 23 Apr 2006 09:57:09 +0100, Ian White GM3SEK
<gm3sek@ifwtech.co.uk> wrote:

>If anyone wants to try a modern correlation, there's lots of data in
>the VE7BQH collection:
>http://www.ifwtech.co.uk/g3sek/diy-yagi/ve7bqh.htm
>
>VE7BQH's data are all for yagis that might be useful for VHF/UHF
>moonbounce, so boom lengths start at 1.8wl and range up to 8wl. (This
>turns out to be no use to Reg - see later - but it's an interesting
>topic in its own right.)
>
>If anyone is interested in doing it, use the L(WL) and GAIN(dBd)
>columns. With Excel, it should take all of ten minutes to get the data
>from the web page and into a "scatter X-Y" graph.
>

Ian, I have plotted the data in VE7BQH's table, along with a
polynomial (1) curve fit and also the function given by K0TAR for
comparison.

The plot is at http://www.vk1od.net/lost/VE7BQHYagiGain.htm .

It would be dangerous to assume the fit function applies much below
the limits plotted.

Owen
--

1413. Need fiberglass poles for Flag/Pennant antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 11:59:42 UTC
From: amdx <amdx@worldnet.att.net>
Message-ID: <8edf7$444b6c29$45011502$20300@KNOLOGY.NET>
Source record: 60605

I'm looking for 4- 10ft fiberglass poles to rebuild my Flag/Pennant
antenna.
I want to keep it as light as possible, but I want it to last 10 years this
time.
I don't know the strength required. Has anyone used 1" fiberglass for the
spreaders? I'll probably use larger. Tell me what you used and where you got
it.
Thanks, Mike

1414. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 12:08:46 UTC
From: Buck <not@this.time>
Message-ID: <gc6m425rfdiuoifq2rbahs85kn4to35mhp@4ax.com>
Source record: 60606

Reg,

I don't think there is a 'formula' that is used to predict gain based on boom length. Several experienced experimenters with boom antennas have stated that the number of elements varies the gain very little for a given length, however, given some general design, a number of elements is typically half the gain of the same design with twice as many elements and twice the boom length.

In other words, a 6 element beam of some given element spacing has a (number from the air) gain of 6db. A twelve element version with twice the boom length will be in the ballpark of 12 db gain.

Given that some 1.5 lambda boom antennas are made for wide bandwidth and others are fine tuned for maximum gain, one cannot have an accurate, or ballpark formula for beams that fit all.

One example is a man who was advertising that his j-pole antenna outperformed a 3 element beam. His comparison was to a 3 element beam designed for 180 deg beam width. It had two reflectors and one driven element, but no director. It had a gain of 2.5 db, if I remember correctly. However, the typical 3 element beam a ham would use is 6-8 db gain and has one reflector, one driven element and one director. It's beam width is much narrower than the 180 degrees desired by the man trying to broadcast his bootleg FM BC station.

I hope this helps.

Let me know.

73
--
73 for now
Buck
N4PGW

1415. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 12:38:34 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ezK2g.74476$dW3.35526@newssvr21.news.prodigy.com>
Source record: 60607

Reg Edwards wrote:
> After speed-reading it I came to the conclusion it is unnecessarily
> over-complicated.

Maybe making it over-complicated also makes it over-accurate? :-)

> What on Earth does "Voltage Magnification by
> Coherent Spatial Modes" mean?

It means that super high SWRs result in super high voltages.
It's the usual VSWR = Vmax/Vmin for coherent signals.

> Have you compared VF's (a critical parameter) in my programs with
> Corum's values for close-wound coils of usual proportions?

I haven't yet figured out the English unit to Metric unit
conversion procedure for turns on a coil. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1416. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 13:17:35 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <vtum421oe2fj7asm9g4lluapfrl9vrh3r1@4ax.com>
Source record: 60608

On Sun, 23 Apr 2006 08:08:46 -0400, Buck <not@this.time> wrote:

[snip]

>In other words, a 6 element beam of some given element spacing has a
>(number from the air) gain of 6db. A twelve element version with
>twice the boom length will be in the ballpark of 12 db gain.

You want to rethink this? I've always figured 2.5 - 2.6 dB increase
for each doubling of the boom length (or array size) for practical
purposes.

1417. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 13:43:00 UTC
From: Buck <not@this.time>
Message-ID: <gn0n421t3dvn4v6fhdn6bapnkvsr74ucnm@4ax.com>
Source record: 60609

On Sun, 23 Apr 2006 06:17:35 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>On Sun, 23 Apr 2006 08:08:46 -0400, Buck <not@this.time> wrote:
>
>[snip]
>
>>In other words, a 6 element beam of some given element spacing has a
>>(number from the air) gain of 6db. A twelve element version with
>>twice the boom length will be in the ballpark of 12 db gain.
>
>You want to rethink this? I've always figured 2.5 - 2.6 dB increase
>for each doubling of the boom length (or array size) for practical
>purposes.

That's pretty close. I don't know the exact numbers and my numbers
are just ballpark. yours may very well be more accurate. I haven't
tried modeling for accuracy, just what I remember reading about
antennas. If you build a 2 lambda antenna and a 4 lambda antenna, they
the 4 will have about the same gain as a pair of 2 lambda antennas
phased, which is about, but not necessarily exactly double the gain of
one antenna.

give or take 1/2 db, what is that to signal strength anyway?

thanks :)

Buck

--
73 for now
Buck
N4PGW

1418. Re: Antenna love!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 13:53:27 UTC
From: Howard W3CQH <hgorden@adelphia.net>
Message-ID: <itydnR6-94VFG9bZRVn-tQ@adelphia.com>
Source record: 60610

YUK YUK
"CeeTee" <260253@xtra.co.nz> wrote in message
news:oYD2g.16009$JZ1.612462@news.xtra.co.nz...
> Two antennas met on a roof, fell in love and got married. The ceremony
> wasn't much, but the reception was excellent!!

1419. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 14:28:41 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <6c-dnV_EY_E6EtbZRVnyrw@bt.com>
Source record: 60611

"Buck" wrote

> give or take 1/2 db, what is that to signal strength anyway?
>
==========

It's about 1/12th of an S-unit on your S-meter. Just the thickness of the meter needle.

It matters even less when plus or minus 2 or 3 S-units, or 15 dB, of fading occurs on radio paths through the ionosphere. ;o)

Why all the worry about antenna gains within about 0.01 dB ?

Just get some wire high up in the air and enjoy yourself.

Reg.

1420. Re: M2 6 Meter Yegis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 15:12:58 UTC
From: delboy <iamsomeone@somewhere.com>
Message-ID: <_PM2g.40346$zf1.35668@newsfe5-gui.ntli.net>
Source record: 60612

"Phil" <k6eid@bellsouth.net> wrote in message
news:sx71g.22108$Kh5.19147@bignews8.bellsouth.net...
>I am thinking for replacing my old Creative Design CL-6A 5 element 6 meter
> yagis with one of the M Squared antennas, either a 6M7, 6M7JHV, or a
> 6M2WLC.
> Does anyone know where there's any comparatiuve data on them or where
> there
> are product reviews on the 6M7 or 6M2WLC (the JHV was in QST a few years
> back)?
>
> Thanks
>
> Phil Finkle K6EID

Try http://www.eham.net/reviews/products/36

1421. The Right Perspective: Jail the Traitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 15:21:26 UTC
From: NewsGuy <NewsGuy2005@gmail.com>
Message-ID: <1145805686.225971.60100@i40g2000cwc.googlegroups.com>
Source record: 60613

Frank thanks Georgia Governor Sonny Perdue for singning a sweeping immigration bill into law. Frank argues that the law should not only apply to employees and business owners, but to politicians as well, and proposes a legal limit on the amount of wealth politicans have so that they are less corrupt and more responsive to the issues of the American people. Frank also says politicans who are pro-illegal alien, or are caught employing illegals, should be stripped of their office and immediately thrown in jail.

Frank also proposes turing the entire American population into a defacto militia, awarding an American citizen a $2000 bounty for every illegal they identify.

Also, Frank addresses the talk radio plagurists who steal his material, word for word... Lionel Richie condemned for his support of Momar Khadaffi-duck... NYC Mayor Bloomberg's heavy taxation policy driving people out of town... Bill Clinton calls in to discuss the week's events... Rush Limbaugh and don't get the Duke rape story... The politics of high gas prices... Frank explains what a "Berengian" is... your phone calls at 718-761-9996 and much more.

http://therightperspectivepodcastblog.blogspot.com/2006/04/jail-traitors.html

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1422. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 15:31:10 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <l77n42tk7j6q8gtiv0888pidgcfftqbifl@4ax.com>
Source record: 60614

On Sun, 23 Apr 2006 09:43:00 -0400, Buck <not@this.time> wrote:

>On Sun, 23 Apr 2006 06:17:35 -0700, Wes Stewart <n7ws*@*yahoo.com>
>wrote:
>
>>On Sun, 23 Apr 2006 08:08:46 -0400, Buck <not@this.time> wrote:
>>
>>[snip]
>>
>>>In other words, a 6 element beam of some given element spacing has a
>>>(number from the air) gain of 6db. A twelve element version with
>>>twice the boom length will be in the ballpark of 12 db gain.
>>
>>You want to rethink this? I've always figured 2.5 - 2.6 dB increase
>>for each doubling of the boom length (or array size) for practical
>>purposes.
>
>That's pretty close. I don't know the exact numbers and my numbers
>are just ballpark. yours may very well be more accurate. I haven't
>tried modeling for accuracy, just what I remember reading about
>antennas. If you build a 2 lambda antenna and a 4 lambda antenna, they
>the 4 will have about the same gain as a pair of 2 lambda antennas
>phased, which is about, but not necessarily exactly double the gain of
>one antenna.
>
>give or take 1/2 db, what is that to signal strength anyway?

Quite a bit on an EME path.

BTW, going from 6 dB to 12 dB isn't a two times increase.

1423. Re: 40 meter beam for sale

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 16:44:31 UTC
From: ml <m@di.net>
Message-ID: <m-F6A417.12442623042006@news.verizon.net>
Source record: 60615

In article <hJW0g.2536$Lm5.1773@newssvr12.news.prodigy.com>,
"Ed" <none@this.time> wrote:

> M Squared brand, model 40M3L. Several years old but never unboxed, stored
> inside, dusty but new in every way. Present price is $1092.00, I will take
> $650 for it. Pick-up only in Dallas, Texas. KV5I
> eh54@sbcglobal.net

so if it's never unboxed, how'd the antenna get dusty?

1424. 3 beam comparason

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 17:00:22 UTC
From: ml <m@di.net>
Message-ID: <m-EEA2B2.13002223042006@news.verizon.net>
Source record: 60616

hi

I was just wondering about how 3 antenna 'types' would compare, I can of course pull the spec's off the manuf home pages, but wonder what a real world interpratation would be and hope somone here might have either used them or have some simular experience to share

a multiband log peridic and traditional multiband beam(w/or w/o traps) and a optibeam

ofcourse there are pro's and con's of each but just wondering what type might be 'mostly best' overall if you tried to just the playing field as level as possible

didn't want this to be about cost per say, just overall performance, but having said that, there sure is a big price swing on those types and I wonder , if anyone one of those antenna types have a overall tremendious benifit based soley on improving received signal strength to warrent one getting it vs say another and or a cheeper one

tnx

1425. Re: Need fiberglass poles for Flag/Pennant antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 17:03:48 UTC
From: Jeff Maass <jmaass@columbus.rr.com>
Message-ID: <UrO2g.6716$YI5.1728@tornado.ohiordc.rr.com>
Source record: 60617

"amdx" <amdx@worldnet.att.net> wrote in message
news:8edf7$444b6c29$45011502$20300@KNOLOGY.NET...
> I'm looking for 4- 10ft fiberglass poles to rebuild my Flag/Pennant
> antenna.
> I want to keep it as light as possible, but I want it to last 10 years
this
> time.
> I don't know the strength required. Has anyone used 1" fiberglass for
the
> spreaders? I'll probably use larger. Tell me what you used and where you
got
> it.
> Thanks, Mike

Mike:

I've used these military surplus mast sections for flag/pennant supports in
the Caribbean. They are 44-inches per section when stacked, and six is
just right for pennant/flags.

There are other sellers, but this will give you an idea of what I'm talking
about.

http://cgi.ebay.com/HEAVY-DUTY-ANTENNA-48-FIBERGLASS-MAST-SECTIONS-DIPOLE_W0QQitemZ9715771
154

73,

Jeff K8ND

1426. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 17:16:14 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <444bb65f$0$1009$39cecf19@news.twtelecom.net>
Source record: 60618

Owen Duffy wrote:

>
> Ian, I have plotted the data in VE7BQH's table, along with a
> polynomial (1) curve fit and also the function given by K0TAR for
> comparison.
>
> The plot is at http://www.vk1od.net/lost/VE7BQHYagiGain.htm .
>
> It would be dangerous to assume the fit function applies much below
> the limits plotted.
>
> Owen
> --

Owen,

I will try and dig out the original spreadsheet I used. It will be problematic to use, since it's not compatible with anything Microsoft, and there's nothing alse anymore.

tom
K0TAR

1427. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 21:06:32 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <5mqn42lkist8kd21aoqh2j1fkks7r60lpr@4ax.com>
Source record: 60619

On Sun, 23 Apr 2006 06:17:35 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>On Sun, 23 Apr 2006 08:08:46 -0400, Buck <not@this.time> wrote:
>
>[snip]
>
>>In other words, a 6 element beam of some given element spacing has a
>>(number from the air) gain of 6db. A twelve element version with
>>twice the boom length will be in the ballpark of 12 db gain.
>
>You want to rethink this? I've always figured 2.5 - 2.6 dB increase
>for each doubling of the boom length (or array size) for practical
>purposes.

Wes, that is pretty consistent with the fit to the VE7BQH collation
which gives me 2.64dB for doubling of the boom length (for a long yagi
(2 - 8 wavelengths) with sufficient elements). Alternatively, 1dB
increase for each 30% increase in boom length.

Owen
--

1428. Re: Antenna love!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-23 23:14:00 UTC
From: microwaves@blueyonder.co.uk
Message-ID: <444e09ad.118542905@news.blueyonder.co.uk>
Source record: 60620

On Sun, 23 Apr 2006 17:07:30 +1200, CeeTee <260253@xtra.co.nz> wrote:

>Two antennas met on a roof, fell in love and got married. The ceremony
>wasn't much, but the reception was excellent!!

You could say they fell into a trap because one was unbalanced...

Peter G3PHO

1429. Re: Antenna gains

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 00:55:00 UTC
From: Buck <not@this.time>
Message-ID: <rd8o429qhudbkuael7dkfrdp0qf118nb4c@4ax.com>
Source record: 60621

On Sun, 23 Apr 2006 08:31:10 -0700, Wes Stewart <n7ws*@*yahoo.com>
wrote:

>On Sun, 23 Apr 2006 09:43:00 -0400, Buck <not@this.time> wrote:
>
>>On Sun, 23 Apr 2006 06:17:35 -0700, Wes Stewart <n7ws*@*yahoo.com>
>>wrote:
>>
>>>On Sun, 23 Apr 2006 08:08:46 -0400, Buck <not@this.time> wrote:
>>>
>>>[snip]
>>>
>>>>In other words, a 6 element beam of some given element spacing has a
>>>>(number from the air) gain of 6db. A twelve element version with
>>>>twice the boom length will be in the ballpark of 12 db gain.
>>>
>>>You want to rethink this? I've always figured 2.5 - 2.6 dB increase
>>>for each doubling of the boom length (or array size) for practical
>>>purposes.
>>
>>That's pretty close. I don't know the exact numbers and my numbers
>>are just ballpark. yours may very well be more accurate. I haven't
>>tried modeling for accuracy, just what I remember reading about
>>antennas. If you build a 2 lambda antenna and a 4 lambda antenna, they
>>the 4 will have about the same gain as a pair of 2 lambda antennas
>>phased, which is about, but not necessarily exactly double the gain of
>>one antenna.
>>
>>give or take 1/2 db, what is that to signal strength anyway?
>
>Quite a bit on an EME path.
>
>
>BTW, going from 6 dB to 12 dB isn't a two times increase.

you are right. A 6 element antenna to a twelve element antenna or
double boom size is about 3 db gain, double power. Sorry.
--
73 for now
Buck
N4PGW

1430. Re: 3 beam comparason

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 01:29:34 UTC
From: Buck <not@this.time>
Message-ID: <6l9o42d16ee1fg4d0e21c5446hcimiim1l@4ax.com>
Source record: 60622

On Sun, 23 Apr 2006 17:00:22 GMT, ml <m@di.net> wrote:

>hi
>
>I was just wondering about how 3 antenna 'types' would compare, I can of
>course pull the spec's off the manuf home pages, but wonder what a real
>world interpratation would be and hope somone here might have either
>used them or have some simular experience to share
>
>
>a multiband log peridic and traditional multiband beam(w/or w/o traps)
>and a optibeam
>
>ofcourse there are pro's and con's of each but just wondering what
>type might be 'mostly best' overall if you tried to just the playing
>field as level as possible
>
>
>didn't want this to be about cost per say, just overall performance, but
>having said that, there sure is a big price swing on those types and I
>wonder , if anyone one of those antenna types have a overall
>tremendious benifit based soley on improving received signal strength to
>warrent one getting it vs say another and or a cheeper one
>
>
>
>tnx

You have asked a really broad question. A log periodic antenna will outperform a smaller trap multiband two element beam, but probably not a larger one, i.e. one with longer boom and many elements. You will be as well to abide with the manufacturer's specifications until you can pick out the specific antennas to compare.

A multiband yagi with traps can out perform a trapless multiband yagi, by being longer and using more elements.

I don't know if there is a level playing field unless you can be more specific.

Well known amateur radio antenna manufacturers who have been around a while aren't likely to try to fudge the numbers as too many hams are quick to model the antennas and respond with not so kind words faster than the marketing department can spread their lies. I would trust them for the sake of picking the antennas and then ask around about how they compare.

I would be more wary of satisfied/dissatisfied users information than manufacturers specs these days. Anyone can get lucky and because of that love the antenna. For example, I have communicated three times to Japan from Georgia. All three events were mobile. However, during that same time, I had a tri-band beam up 50 feet and have never been able to make a japanese contact with it. Therefore, one might conclude that my mobile antenna outperforms my yagi. Of course it was propagation and timing.

I used a wonderful trap dipole for about three months. It worked fantastically well. Then I put a fan-style dipole up to test it. It outperformed the trap dipole by a great deal. Until I compared it, the trap was great, now it isn't such a great antenna any more.

This is what you are up against. Good luck.

--
73 for now
Buck
N4PGW

1431. 2.4 Gig Wireless Card - No Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 02:00:06 UTC
From: Gary Smith <mygrps@aapt.net.au>
Message-ID: <e2hbf6$c6g$1@news-01.bur.connect.com.au>
Source record: 60623

Hi, i am wondering if using a wireless network card without an antenna will destroy it. I presume the SWR would be right up so therefore will damage the card. Any comments?

Gary

1432. Re: mobile loading coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 03:23:04 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <uuX2g.14665$4O2.5610@bignews7.bellsouth.net>
Source record: 60624

"jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net> wrote in message
news:MAf2g.5282$MM6.865@bignews3.bellsouth.net...
>I want to build some mobile antennas for 10 15 and 20 meters but I am
>having trouble with the physical design of the coil. My biggest problem is
>finding readily available material. A shopping list of things to get at the
>Home Depot would be nice. Antenna would be mounted on my pickup tool box
>and would like to keep them six ft long so they will fit neatly in the back
>of the pickup when not in use. I tried this about a year ago and got the
>antennas to work but the PVC loading coil forms came apart after a while.
>Any help would be greatly appreciated.
>

I put together the 15m and 10m antenna today. 10 meter is OK,15 and 20 meter
units have a really high SWR, nearly fullscale on the meter which reads 5:1
max. I figure this may be normal as the impedance of the shorten antenna
should be getting pretty low at this point. 10 ohms or less would not sound
to unreasonable to me for a 6ft long 20m antenna.

I went to the Home Depot today and found some chimney sweeper brush handles
. These are about 4 ft long each made of fiberglass and screw together. A
few of these in the back of the truck will allow me to put together nearly
any length antenna I need. Im thinking 40M may be a practical limit Dont
worry I dont drive and ham at the same time.

Worst problem I see with this is making an adapter for my ball mount. Will
probably cannibalize one of the handles for its attaching hardware and weld
a bolt to it to fit the ballmount

1433. Re: 2.4 Gig Wireless Card - No Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 03:28:06 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145849286.700172.296490@i39g2000cwa.googlegroups.com>
Source record: 60625

If you're talking about a laptop PCMCIA card, it probably has an antenna on board.

If you're talking about a PCI card that plugs into a desktop and has a removable antenna, I'm sure the power amplifier has protection circuitry.

A high SWR doesn't necessary damage a transmitter that reduces the output power as the impedance goes awry.

I don't think that the designers of 802.11b/g gear are going to be counting on a good SWR at the output anyway, as people are going to shove the computer in the corner with a bunch of cables on it in random orientations/locations with respect to the antenna.

73, Dan

1434. Re: mobile loading coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 04:00:18 UTC
From: Buck <not@this.time>
Message-ID: <t9jo4219dvidni11gkp8gqjljnie2ct12h@4ax.com>
Source record: 60476

> I went to the Home Depot today and found some chimney sweeper brush handles
>. These are about 4 ft long each made of fiberglass and screw together. A
>few of these in the back of the truck will allow me to put together nearly
>any length antenna I need. Im thinking 40M may be a practical limit Dont
>worry I dont drive and ham at the same time.
>

how much were the sweeper handles?

--
73 for now
Buck
N4PGW

1435. Re: Antenna love!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 07:32:09 UTC
From: stananger <stananger@********.***>
Message-ID: <rNOdnQoVNq9J4NHZnZ2dneKdnZydnZ2d@hawaiiantel.net>
Source record: 60477

CeeTee wrote:

> Two antennas met on a roof, fell in love and got married. The ceremony
> wasn't much, but the reception was excellent!!

the real problem was one was bi-directional

1436. Re: 3 beam comparason

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 09:46:16 UTC
From: ml <m@di.net>
Message-ID: <m-28C48A.05461224042006@news.verizon.net>
Source record: 60478

In article <6l9o42d16ee1fg4d0e21c5446hcimiim1l@4ax.com>,
Buck <not@this.time> wrote:

> On Sun, 23 Apr 2006 17:00:22 GMT, ml <m@di.net> wrote:
>
> >hi
> >
> >I was just wondering about how 3 antenna 'types' would compare, I can of
> >course pull the spec's off the manuf home pages, but wonder what a real
> >world interpratation would be and hope somone here might have either
> >used them or have some simular experience to share
> >
> >
> >a multiband log peridic and traditional multiband beam(w/or w/o traps)
> >and a optibeam
> >
> >ofcourse there are pro's and con's of each but just wondering what
> >type might be 'mostly best' overall if you tried to just the playing
> >field as level as possible
> >
> >
> >didn't want this to be about cost per say, just overall performance, but
> >having said that, there sure is a big price swing on those types and I
> >wonder , if anyone one of those antenna types have a overall
> >tremendious benifit based soley on improving received signal strength to
> >warrent one getting it vs say another and or a cheeper one
> >
> >
> >
> >tnx
>
>
> You have asked a really broad question. A log periodic antenna will
> outperform a smaller trap multiband two element beam, but probably not
> a larger one, i.e. one with longer boom and many elements. You will
> be as well to abide with the manufacturer's specifications until you
> can pick out the specific antennas to compare.
>
> A multiband yagi with traps can out perform a trapless multiband yagi,
> by being longer and using more elements.
>
> I don't know if there is a level playing field unless you can be more
> specific.
>

> Well known amateur radio antenna manufacturers who have been around a
> while aren't likely to try to fudge the numbers as too many hams are
> quick to model the antennas and respond with not so kind words faster
> than the marketing department can spread their lies. I would trust
> them for the sake of picking the antennas and then ask around about
> how they compare.
>
> I would be more wary of satisfied/dissatisfied users information than
> manufacturers specs these days. Anyone can get lucky and because of
> that love the antenna. For example, I have communicated three times
> to Japan from Georgia. All three events were mobile. However, during
> that same time, I had a tri-band beam up 50 feet and have never been
> able to make a japanese contact with it. Therefore, one might
> conclude that my mobile antenna outperforms my yagi. Of course it was
> propagation and timing.
>
> I used a wonderful trap dipole for about three months. It worked
> fantastically well. Then I put a fan-style dipole up to test it. It
> outperformed the trap dipole by a great deal. Until I compared it,
> the trap was great, now it isn't such a great antenna any more.
>
> This is what you are up against. Good luck.

<<>>thanks for the responce buck, I can' make perhaps 2 comments
1. for testing pourposes naturally I would only compare antennas of
'simular' size etc etc as much as apples to apples as possible in other
areas i should have mentioned that.
Well aware that a smaller antenna typically wouldn't do as well as a
much larger in the test world ...or even real world

2. as far as trusting the spec's I do, and mention that, but i wasn't
trying to prove or disprove the manuf spec's simply wondering that if
you had all 3 antennas mounted such that they didn't interfere w/each
other and were close enough not to matter for the test and you had a 3
way switch and you averaged the results which antenna if any would
show an overwelming ''win'

tnx again

1437. APRSPoint new version (3.2)

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 10:17:05 UTC
From: "hxc98@yahoo.com" <hxc98@yahoo.com>
Message-ID: <1145873825.162397.240570@y43g2000cwc.googlegroups.com>
Source record: 60479

This version has several improvements on interface and fixed a few problems raised by users, mainly

1. Connect TCP dialog now remembers all servers, ports and filter strings user enters,

2. Added support for auto GPS connection at startup,

3. Improved handling for station tracking and track line customization,

4. Fixed a bug in weather station data processing,

Newer APRS symbol set support is planned, once we have mappoint 2006 and know more about its API interface. Again, visit http://www.aprspoint.com for further details and download of the latest version. Thanks.

1438. Re: 40 meter beam for sale

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 14:02:15 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <HT43g.76355$1q4.32264@bgtnsc05-news.ops.worldnet.att.net>
Source record: 60480

ml wrote:
> In article <hJW0g.2536$Lm5.1773@newssvr12.news.prodigy.com>,
> "Ed" <none@this.time> wrote:
>
>
>>M Squared brand, model 40M3L. Several years old but never unboxed, stored
>>inside, dusty but new in every way. Present price is $1092.00, I will take
>>$650 for it. Pick-up only in Dallas, Texas. KV5I
>>eh54@sbcglobal.net
>
>
> so if it's never unboxed, how'd the antenna get dusty?

ml,

Have you ever been to Texas?

8-)

73,
Gene
W4SZ

1439. DirecTV disk on 2.4 GHz

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 14:04:04 UTC
From: "pdrunen@aol.com" <pdrunen@aol.com>
Message-ID: <1145887444.414974.306250@i40g2000cwc.googlegroups.com>
Source record: 60481

Hi Group,

Over the last few years, I have picked up several of the DirectTV disk which are for 10GHz and most all have a diameter of about 15 to 20 inches.

If I operate a 15 inch disk on 2.4GHz, what gain would I expect?
And, how would this compare to a 20 inch disk?

I am looking forward to your comments!

de KJ4UO

1440. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 14:07:57 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <1Z43g.37917$az4.5435@bgtnsc04-news.ops.worldnet.att.net>
Source record: 60482

```
Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Gene Fuller wrote:
>>
>>> Cecil Moore wrote:
>>>
>>>> Actually, it's just the other way around. How is one ever
>>>> going to understand what's really going on by superposing
>>>> waves to the point where half the information is lost?
>>>
>>>
>>> That question explains everything. It demonstrates conclusively that
>>> you no understanding of superposition.
>>>
>> It also demonstrates that I can't proofread two sentences.
>
>
> Take two PSK signals, superpose them through the same coax,
> and see how much information is lost.

Cecil,

Strike two!

More demonstration that you don't understand superposition.

73,
Gene
W4SZ
```

1441. Re: mobile loading coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 16:10:00 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <uJ63g.14930$4O2.14857@bignews7.bellsouth.net>
Source record: 60483

"Buck" <not@this.time> wrote in message
news:t9jo4219dvidni11gkp8gqjljnie2ct12h@4ax.com...
>
>> I went to the Home Depot today and found some chimney sweeper brush
>> handles
>>. These are about 4 ft long each made of fiberglass and screw together. A
>>few of these in the back of the truck will allow me to put together nearly
>>any length antenna I need. Im thinking 40M may be a practical limit Dont
>>worry I dont drive and ham at the same time.
>>
>
> how much were the sweeper handles?
>
> --
> 73 for now
> Buck
> N4PGW

Dont know the price was not marked on them so I didnt bother finding out
being it was late Sunday. I have since looked for them on the internet and
have seen some really outrageous prices $50 for 5ft. Hope the HD price was
not that bad.

1442. Radio Warning FM

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 17:23:02 UTC
From: magnyfico@wanadoo.fr
Message-ID: <1145899382.368454.8590@g10g2000cwb.googlegroups.com>
Source record: 60484

http://membres.lycos.fr/magnyfico/

A vos marques ! ...Pret!......>Parté !
il est temp d'écoutez la Radio Warning Fm sur le net

1443. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 17:38:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Y183g.63568$F_3.46308@newssvr29.news.prodigy.net>
Source record: 60485

Gene Fuller wrote:
> Cecil Moore wrote:
>> Take two PSK signals, superpose them through the same coax,
>> and see how much information is lost.
>
> Strike two!
> More demonstration that you don't understand superposition.

Actually, more demonstration that you shy away from technical
discussions in favor of inuendo. One wonders why? Please feel
free to enlighten me and others about how phase is conserved
during the superposition process.
--
73, Cecil http://www.qsl.net/w5dxp

1444. Re: DirecTV disk on 2.4 GHz

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 18:59:50 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <K8idneZD2ue_vdDZRVn-pw@comcast.com>
Source record: 60486

difference ~2.5 dB.

pdrunen@aol.com wrote:
> Hi Group,
>
> Over the last few years, I have picked up several of the DirectTV disk
> which are for 10GHz and most all have a diameter of about 15 to 20
> inches.
>
> If I operate a 15 inch disk on 2.4GHz, what gain would I expect?
> And, how would this compare to a 20 inch disk?
>
>
> I am looking forward to your comments!
>
> de KJ4UO
>

1445. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 19:09:00 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <gn93g.77623$1q4.72397@bgtnsc05-news.ops.worldnet.att.net>
Source record: 60487

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Cecil Moore wrote:
>>
>>> Take two PSK signals, superpose them through the same coax,
>>> and see how much information is lost.
>>
>>
>> Strike two!
>> More demonstration that you don't understand superposition.
>
>
> Actually, more demonstration that you shy away from technical
> discussions in favor of inuendo. One wonders why? Please feel
> free to enlighten me and others about how phase is conserved
> during the superposition process.

Cecil,

There is nothing in the concept of superposition that will prevent you from munging up something. I have no idea how you are planning to "superpose" two signals through the same coax, and therefore I have no idea what might happen to the phase.

Go back and review what superposition means. I have stated it here before. It is a standard concept presented in many math, science, and technology textbooks. In simplified form, when superposition applies it says that the output from the combination of two inputs is the same as the sum of the outputs from each input taken one at a time. This is precisely what allows all of the various authors to say that one can consider a standing wave to be equivalent to two opposite direction traveling waves. This is purely a mathematical notion; superposition does not impact the physical reality at all.

Superposition does not always apply. Only systems that are linear can be expected to exhibit superposition properties.

If you choose to add a second input that was not there previously then the combined output will be different than the output from the original single input.

I didn't know I shied away from technical discussions. I thought you were quoting me as one of your gurus when it was convenient.

73,
Gene
W4SZ

1446. Re: DirecTV disk on 2.4 GHz

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 19:09:10 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <eJqdne2CL8jPv9DZnZ2dnUVZ_t2dnZ2d@comcast.com>
Source record: 60488

I'm sure you will get a more precise answer from those with experience
at 2.4 GHz or who can model the antenna effectively.

For a quick approximation I use the ratio of the square wavelengths. So,
2.4 GHz ~ 5 inch wavelength. A 15 inch [3 wavelength] diameter will
exhibit an approximate gain of 9 square wavelengths or something around
9 to 10 dB at 2.4 GHz. This will most likely may be off target by up to
2 or 3 dB.

Anyone have a more precise estimate or calculation?

/S/ W1MCE

pdrunen@aol.com wrote:

> Hi Group,
>
> Over the last few years, I have picked up several of the DirectTV disk
> which are for 10GHz and most all have a diameter of about 15 to 20
> inches.
>
> If I operate a 15 inch disk on 2.4GHz, what gain would I expect?
> And, how would this compare to a 20 inch disk?
>
>
> I am looking forward to your comments!
>
> de KJ4UO
>

1447. MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 19:59:05 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145908745.710199.188670@e56g2000cwe.googlegroups.com>
Source record: 60489

The MFJ-962C "1.5kW" Versa Tuner III description claims to contain a 4:1 current balun. I'm using that "balanced" output on my HF almost-doublet (slightly unequal leg lengths) with fairly decent results.

The balun only has a single core. From what I understand, these "4:1 current baluns" aren't.

Furthermore, my antenna presents both higher and lower impedances than 50 ohms depending on band.

For convenience, I'd like to have a single port that I connect my antenna to at all times. I've remoted this tuner and I don't want to make more complicated switching arrangements. Is it worthwhile to rewind the "4:1 current balun" as a 1:1 choke balun?

It seems that it might be more appropriate for my application. I should expect the core to work well for any HF transmission line transformer I'd like to wind, as long as I don't saturate the thing, right?

73,
Dan
N3OX

1448. Re: DirecTV disk on 2.4 GHz

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 20:17:14 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <ena3g.1343$yl1.274@trnddc04>
Source record: 60490

>
>> Hi Group,
>>
>> Over the last few years, I have picked up several of the DirectTV disk
>> which are for 10GHz and most all have a diameter of about 15 to 20
>> inches.
>>
>> If I operate a 15 inch disk on 2.4GHz, what gain would I expect?
>> And, how would this compare to a 20 inch disk?
>>
>>
>> I am looking forward to your comments!
>>
>> de KJ4UO
>>
>I did not run the numbers, but my concern would be properly illuminating
>the surface. Fortunately, the dish is offset fed so feed blockage will not
>be a concern.. Go to the W1GHZ site to see appropriate high F/D feeds to
>illuminate this surface.

Dale W4OP

1449. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 20:59:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124qf1p28ssj7e0@corp.supernews.com>
Source record: 60491

n3ox.dan@gmail.com wrote:
> The MFJ-962C "1.5kW" Versa Tuner III description claims to contain a
> 4:1 current balun. I'm using that "balanced" output on my HF
> almost-doublet (slightly unequal leg lengths) with fairly decent
> results.
>
> The balun only has a single core. From what I understand, these "4:1
> current baluns" aren't.

I don't know of any way to make a 4:1 current balun with a single one-hole core. I think it's possible with a two-hole (binocular) core if done right.

> Furthermore, my antenna presents both higher and lower impedances than
> 50 ohms depending on band.

The "4:1" transformer probably has a 4:1 impedance transformation only when the load Z is near 200 + j0 ohms. Elsewhere, it'll have a different transformation ratio and also will add series and/or shunt impedance.

> For convenience, I'd like to have a single port that I connect my
> antenna to at all times. I've remoted this tuner and I don't want to
> make more complicated switching arrangements. Is it worthwhile to
> rewind the "4:1 current balun" as a 1:1 choke balun?

Maybe somebody else can take a crack at this, but I think it's impossible to say. It depends on both the differential and common mode impedances seen at the feedline input as well as the tuner's matching range and efficiency.

> It seems that it might be more appropriate for my application. I
> should expect the core to work well for any HF transmission line
> transformer I'd like to wind, as long as I don't saturate the thing,
> right?

I've seen a lot of tuner baluns made with powdered iron cores which don't give enough impedance for a decent balun of any kind. And the flux density will be much greater in a 4:1 voltage balun like you have now than in a 1:1 current balun. Type 43 ferrite is a good compromise choice for a 1:1 current balun. If you want to try using the core, put a bunch of turns on it and measure the impedance with an antenna analyzer if you have one. You'll need about 500 - 1000 ohms to make an effective balun for an approximately matched antenna. It might not be possible to get enough impedance for it to work well on all bands with a multiband antenna.

Roy Lewallen, W7EL

1450. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 21:04:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124qfaq4636hq11@corp.supernews.com>
Source record: 60492

Reg Edwards wrote:
> . . .
> For years, my approach to loading coils at HF has been to calculate
> the inductance and capacitance per unit length of coil from DC
> principles. And then calculate the velocity factor and Zo from
> transmission line principles. Which gives results in the right ball
> park according to what few experiments I have made with actual anennas
> and helices on the 160 and 80 meter bands.

How do you calculate the coil C to use in the transmission line formulas?

Roy Lewallen, W7EL

1451. Re: mobile loading coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 21:08:04 UTC
From: nm5k@wt.net
Message-ID: <1145912884.770796.133430@v46g2000cwv.googlegroups.com>
Source record: 60493

>Thanks Cecil, I have some old fiberglass 11m antennas, the kind that has a
>wire antenna heatshrinked to a fiberglass rod that would be pefect for
>making this. ....

You can use one of those for all those bands, just by changing the
top "stinger" whip. I use the small hose clamps to hold them, if the
stick doesn't have a slide in mounting part on top.
IE: if you had a 6 ft CB stick that used a short stinger, you can add
length to tune the lower bands. On one of mine, the stinger needed to
be about 2 ft longer to tune 20m using the CB stick. So if you had
various
stingers to clip on, you could work all the bands from 20-10.
On those upper HF bands, even the simple CB stick/extended stinger
will work quite well. A cb/10m stick using a longer stinger to tune
20m,
is more efficient than most 20m sticks using more turns of wire, and a
shorter stinger.
I have one antenna that I've used for nearly 15 years that was built
from a
firestick CB antenna. I added a large coil in the middle, and it works
all
bands 80-10. I change coil taps on the low bands, stinger length on the

upper bands.
I also have one I made from a 6 ft 20m stick. It's also converted to
all
band use, and has the performance of a bugcatcher, being it uses a
large
coil on the lower bands. But...it's as light as a fishing rod n reel...
I use a 5 ft stinger, and the normal driving height of the antenna is
11 ft.
That antenna is exactly center loaded in the driving mode. If I add a
3 ft
mast, it's 14 ft tall, with the coil at the 8 ft level. But I use that
when parked.
Bit tall for driving... :/ Anyway, you can build a pretty good antenna
dirt
cheap if you look around. I've never spent more than junk parts and
chump change for a mobile antenna.
MK

1452. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 21:31:16 UTC
From: Larry Benko <xxw0qe@comcast.net>
Message-ID: <ZcSdnU4wTZo-3tDZRVn-qg@comcast.com>
Source record: 60494

Roy,

Take a look at http://home.earthlink.net/~christrask/Trask4to1Balun.pdf
for a supposed 4:1 current balun on a single hole torroid. I have no
first hand experience with this design.

73,
Larry, W0QE

Roy Lewallen wrote:

> I don't know of any way to make a 4:1 current balun with a single
> one-hole core. I think it's possible with a two-hole (binocular) core if
> done right.

1453. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 21:33:46 UTC
From: Larry Benko <xxw0qe@comcast.net>
Message-ID: <ZcSdnUkwTZql2dDZRVn-qg@comcast.com>
Source record: 60495

Whoops, my mistake. A single binocular core which obviously has 2
holes. Sorry

Larry, W0QE

Larry Benko wrote:

> Roy,
>
> Take a look at http://home.earthlink.net/~christrask/Trask4to1Balun.pdf
> for a supposed 4:1 current balun on a single hole torroid. I have no
> first hand experience with this design.
>
> 73,
> Larry, W0QE
>
>
>
> Roy Lewallen wrote:
>
>
>
>> I don't know of any way to make a 4:1 current balun with a single
>> one-hole core. I think it's possible with a two-hole (binocular) core
>> if done right.

1454. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 22:21:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124qjqncqgspg51@corp.supernews.com>
Source record: 60496

I also made a mistake in that I failed to qualify my statement. I meant only transmission line transformers. A conventionally connected transformer will act as a current balun, and any ratio can be made with a single core. However, it's difficult to get the extreme wide band qualities from one that you routinely get from a transmission line transformer. I don't agree with Trask that his design is a transmission line transformer despite the two holes, but it does seem to have very good bandwidth. Also, although he looked at the return loss with various output terminals grounded, I don't see any measurements showing how well it actually balances the output currents. But most conventional transformers do a good job of that, so this one probably does.

Roy Lewallen, W7EL

Larry Benko wrote:
> Whoops, my mistake. A single binocular core which obviously has 2
> holes. Sorry
>
> Larry, W0QE
>
>
> Larry Benko wrote:
>
>> Roy,
>>
>> Take a look at http://home.earthlink.net/~christrask/Trask4to1Balun.pdf
>> for a supposed 4:1 current balun on a single hole torroid. I have no
>> first hand experience with this design.
>>
>> 73,
>> Larry, W0QE
>>
>>
>>
>> Roy Lewallen wrote:
>>
>>
>>> I don't know of any way to make a 4:1 current balun with a single
>>> one-hole core. I think it's possible with a two-hole (binocular) core
>>> if done right.

1455. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 22:21:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <6O2dnfHF5slNzdDZnZ2dnUVZ8tKdnZ2d@bt.com>
Source record: 60498

> How do you calculate the coil C to use in the transmission line
formulas?
>
> Roy Lewallen, W7EL
==========

I'm surprised a person of your knowledge asked.

Go to Terman's or other bibles, I'm sure you'll find it somewhere, and find the formula to calculate the DC capacitance to its surroundings of a cylinder of length L and diameter D.

Then do the obvious and distribute the capacitance uniformly along its length.

The formula will very likely be found in the same chapter as the inductance of a wire of given length and diameter.

I have the capacitance formula I derived myself somewhere in my ancient tattered notes but I can't remember which of the A to S volumes it is in.

I'm 3/4 ot the way down a bottle of French Red plonk. But Terman et al should be be quite good enough for your purposes.

And its just the principle of the thing which matters. It's simple enough. I don't suppose you will make use of a formula if and when you find one.

Reg.

1456. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 22:23:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0ec3g.69194$H71.67806@newssvr13.news.prodigy.com>
Source record: 60497

Gene Fuller wrote:
> In simplified form, when superposition applies it
> says that the output from the combination of two inputs is the same as
> the sum of the outputs from each input taken one at a time.

The point is that phase is not preserved through the superposition process and as you have noted before, the phase information completely disappears from the superposed standing wave current.

> This is
> precisely what allows all of the various authors to say that one can
> consider a standing wave to be equivalent to two opposite direction
> traveling waves. This is purely a mathematical notion; superposition
> does not impact the physical reality at all.

It certainly impacts the physical reality of W7EL's phase measurements. If he measured the delay through the coil using the forward current, he would obtain valid results. If he measured the delay through the coil using the reflected current, he would obtain valid results. But the superposition of those two currents results in a signal with unchanging phase that cannot validly be used to determine the delay through a wire or a coil or anything else.

> I thought you
> were quoting me as one of your gurus when it was convenient.

Yes, because you agree with me on most technical points. Your arguments with me are invariably personal, not technical. I am not aware of a single technical point upon which you and I disagree.
--
73, Cecil http://www.qsl.net/w5dxp

1457. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 22:54:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124qlp7fe41g87a@corp.supernews.com>
Source record: 60499

I did a search quite some time ago and failed completely in finding the formula you describe, in Terman or any other "bible". The formula for the capacitance of an isolated sphere is common, but not a cylinder. The formula for a coaxial capacitor is common also, but the capacitance calculated from it approaches zero as the outer cylinder diameter gets infinite.

Maybe you could take a look after the wine wears off, and see if you can locate the formula. By your earlier posting, it sounds like you've used it frequently, so it shouldn't be too hard to find. I'd appreciate it greatly if you would. And yes, I would make use of the formula -- I'm very curious about how well a coil can be simulated as a transmission line. The formula you use would be valid only in isolation, so capacitance to other wires, current carrying conductors, and so forth would have an appreciable effect. I showed not long ago that capacitance from a base loading coil to ground has a very noticeable effect. Do you have a way of taking that into account also?

Roy Lewallen, W7EL

Reg Edwards wrote:
>> How do you calculate the coil C to use in the transmission line
> formulas?
>> Roy Lewallen, W7EL
> ==========
>
> I'm surprised a person of your knowledge asked.
>
> Go to Terman's or other bibles, I'm sure you'll find it somewhere, and
> find the formula to calculate the DC capacitance to its surroundings
> of a cylinder of length L and diameter D.
>
> Then do the obvious and distribute the capacitance uniformly along its
> length.
>
> The formula will very likely be found in the same chapter as the
> inductance of a wire of given length and diameter.
>
> I have the capacitance formula I derived myself somewhere in my
> ancient tattered notes but I can't remember which of the A to S
> volumes it is in.
>
> I'm 3/4 ot the way down a bottle of French Red plonk. But Terman et
> al should be be quite good enough for your purposes.
>

> And its just the principle of the thing which matters. It's simple
> enough. I don't suppose you will make use of a formula if and when
> you find one.
> ----
> Reg.
>
>

1458. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 23:34:28 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <8gd3g.39213$az4.1977@bgtnsc04-news.ops.worldnet.att.net>
Source record: 60500

Cecil Moore wrote:
> Gene Fuller wrote:
>>
>> I thought you were quoting me as one of your gurus when it was
>> convenient.
>
>
> Yes, because you agree with me on most technical points. Your arguments
> with me are invariably personal, not technical. I am not aware of a
> single technical point upon which you and I disagree.

Cecil,

Be assured that I disagree with you on a great many technical points.

8-)

73,
Gene
W4SZ

1459. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-24 23:55:06 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <g_6dnesyX8FB-NDZRVnyrw@bt.com>
Source record: 60501

Just find the capacitance for a wire of length L and diameter D.

A wire of length L and diameter D is a cylinder.

I vaguely remember seeing, in Terman, in graphical or tabular form,
the capacitance to its surroundings of a vertical wire of length L,
the bottom end of which is at a height H above a ground plane.

If you can't find an equation for capacitance then use the equation
for inductance. The velocity factor for an antenna wire is 1.00 or
0.99. From inductance per unit length you can calculate what the
capacitance per unit length must be to give a velocity factor of 1.00
That's the perfectly natural way I sort things out. My education must
be altogether different to yours.

The equation for capacitance in terms of length and diameter must be
of the same form as inductance with a just a reciprocal involved.

I'm even more certain you will find an equation for inductance of an
isolated wire of length L and diameter D somewhere in the bibles.
From which the equation for capacitance can be deduced.

Reg.

1460. Re: 40 meter beam for sale

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 01:01:13 UTC
From: Ed <none@this.time>
Message-ID: <txe3g.74771$dW3.6917@newssvr21.news.prodigy.com>
Source record: 60502

A 3 inch, 32 foot boom doesn't come in a box. The elements and hardware I
assume are clean inside the box. the box is dusty. If your worried about
dust go buy a vertical.
Ed
"ml" <m@di.net> wrote in message
news:m-F6A417.12442623042006@news.verizon.net...
> In article <hJW0g.2536$Lm5.1773@newssvr12.news.prodigy.com>,
> "Ed" <none@this.time> wrote:
>
>> M Squared brand, model 40M3L. Several years old but never unboxed, stored
>> inside, dusty but new in every way. Present price is $1092.00, I will
>> take
>> $650 for it. Pick-up only in Dallas, Texas. KV5I
>> eh54@sbcglobal.net
>
> so if it's never unboxed, how'd the antenna get dusty?

1461. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 01:09:17 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145927357.742041.218170@v46g2000cwv.googlegroups.com>
Source record: 60503

Hmmm...this is getting back really close to what I was trying to get at when I posted the capacitance-of-a-wire-conundrum basenote a few weeks ago that went nowhere. But since you've opened it up again, I'll toss out some conundrum-ish things about it.

Consider a wire that's perpendicular to a ground plane; obviously this is interesting for a doublet configuration also, because of symmetry.

I believe I can, without too much trouble, find the inductance of a cylinder of current--current in the shallow skin depth of the wire, which is different than the inductance at low frequencies--per unit length. I believe it will be relatively unaffected by distance along the wire.

I believe I can, with a little more difficulty, find the (DC, as you say) capacitance to the ground plane of a section of wire that's short, in isolation from the rest of the wire (as if the rest of the wire weren't there). But I believe that capacitance will be a much stronger function of distance from that short section to the ground plane than was the case for inductance.

That leaves me with a velocity, sqrt((capacitance/unit length)*(inductance/unit length)), that is not particularly constant along the length of wire. I know that things really are like you say: the velocity along that wire will be nearly the speed of light.

So that tells me that something is wrong, and three things come immediately to mind: either the inductance is more variable with distance from the ground plane than I think it is, or the capacitance is less variable, or the DC analysis does not hold when we are dealing with things propagating at about the speed of light.

In fact, there is a clue in the fact that for the whole wire, with one end spaced a very small distance from the ground plane and the other end far away, in a DC case the charge would be clustered near the ground plane, with very little charge at the tip...but in a resonant antenna, there is often a LOT of charge out near the end that's far away from the ground plane.

OK, that ought to be enough to get lots of conflicting responses going!

Cheers,
Tom

1462. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 01:09:51 UTC
From: Slow Code <more.em@il.more.more.more>
Message-ID: <zFe3g.1117$Vn.360@newsread4.news.pas.earthlink.net>
Source record: 60504
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred <freddyr1928@ll.net> wrote in
news:rgvl42tilp789fgb9oqttm530qeu843upv@4ax.com:

> On Sun, 23 Apr 2006 01:18:02 GMT, "west" <westley@tampabay.rr.com>
> wrote:
>
>>
>>"Fred" <freddyr1928@ll.net> wrote in message
>>news:irbe42thm0v3f33jbm31logq7gjgsio4em@4ax.com...
>>> On Wed, 19 Apr 2006 20:54:39 GMT, Skirt Chaser <my.em@il.dont.work>
>>> wrote:
>>
>><big snip>
>>
>>> I know a gay couple and they are not in your face. In fact... oddly
>>> enough they don't support gay marriage or all the other liberal
>>> nonsense. They are quite conservative. They also don't claim they have
>>> some bullshit scientific right to do what they do. It is only the
>>> retarded flakes like HIV-Markytard that ruin it for the rest of them.
>>
>>
>>I know a man who smoked 3 packs of cigarettes a day and lived to be 94.
>>Your point?
>>
>>west
>
> Can you read? Markie is here pushing his gay agenda and he is spamming
> our group. Why do you choose to be so dense?

Just to stir I'm thinking. He must get a kick out of watching Mark
butcher the english language day in & day out.

SC

1463. blame those that enage in gaybashing for the gay bashing posts

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 01:26:22 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1145928382.424886.232730@i40g2000cwc.googlegroups.com>
Source record: 60505
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Slow Code wrote:
> Fred <freddyr1928@ll.net> wrote in
> news:rgvl42tilp789fgb9oqttm530qeu843upv@4ax.com:
>
west
> >
> > Can you read? Markie is here pushing his gay agenda and he is spamming
> > our group. Why do you choose to be so dense?
>
>
> Just to stir I'm thinking. He must get a kick out of watching Mark
> butcher the english language day in & day out.

or just can't face the facts I have the same rights he does
>
> SC

1464. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 01:36:42 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145929001.979317.115910@i39g2000cwa.googlegroups.com>
Source record: 60506

Thanks for the input guys.

I think that I'm going to break out the '259B and check antenna impedances on various bands first. I'm probably going to go with the 1:1 choke balun even if the common mode impedance on all bands is not significantly higher than the feedpoint impedance. I guess it shouldn't be worse than what I'm matching now.

I think that I don't actually want a 4:1 transformer, as I know there are a couple of bands where the impedance is fairly low, and if I had a functioning 4:1 current balun, I'd be transforming it even lower before the tuner can take a crack at it, and that just seems counterproductive.

I'm living with some degree of imbalance now (which I've tested in that the antenna SWR is different if I reverse the legs on the "balun" output... they aren't equal lengths, they're whatever I can throw out with a slingshot and a weight after a windstorm)

A 1:1 true current balun on some bands and a not-quite-effective-current-balun on others is probably better than what I've got now...

73,
Dan

1465. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 02:47:58 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145933277.951517.23900@u72g2000cwu.googlegroups.com>
Source record: 60507

An important correction: I DO NOT get a lower-than-50ohm *impedance* on
any band.

I may be taxing the limits of my '259B but this is what I measure as
far as ballpark magnitude of impedance.

80M 225 ohms
60m 600 ohms
40m 630 ohms
30m 330 ohms
20m 420 ohms
17m 206 ohms
15m 216 ohms
12m 216 ohms
10m 180 ohms

Nowhere is this resistive.

So, maybe the 4:1 current balun is the more appropriate one. How does
the impedance transformation work with reactive loads?

Here are the impedances if anyone needs:
80m 41-j220
60m 500-j320
40m 500+j370 when paralleled with a 1k resistor (300+j1000ish?)
30m 39-j325
20m 300+j255
17m 50-j200
15m 190+j104
12m 70-j205
10m 170+j60

Will a 4:1 current balun transform a random impedance Z1 to Z2 where
|Z2|=|Z1|/4? I know Roy pointed out that this won't work for a voltage
balun...

73,
Dan

1466. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 03:06:13 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Fmg3g.51803$_S7.51522@newssvr14.news.prodigy.com>
Source record: 60508

K7ITM wrote:
> Hmmm...this is getting back really close to what I was trying to get at
> when I posted the capacitance-of-a-wire-conundrum basenote a few weeks
> ago that went nowhere. But since you've opened it up again, I'll toss
> out some conundrum-ish things about it.
>
> Consider a wire that's perpendicular to a ground plane; obviously this
> is interesting for a doublet configuration also, because of symmetry.
>
> I believe I can, without too much trouble, find the inductance of a
> cylinder of current--current in the shallow skin depth of the wire,
> which is different than the inductance at low frequencies--per unit
> length. I believe it will be relatively unaffected by distance along
> the wire.
>
> I believe I can, with a little more difficulty, find the (DC, as you
> say) capacitance to the ground plane of a section of wire that's short,
> in isolation from the rest of the wire (as if the rest of the wire
> weren't there). But I believe that capacitance will be a much stronger
> function of distance from that short section to the ground plane than
> was the case for inductance.
>
> That leaves me with a velocity, sqrt((capacitance/unit
> length)*(inductance/unit length)), that is not particularly constant
> along the length of wire. I know that things really are like you say:
> the velocity along that wire will be nearly the speed of light.
>
> So that tells me that something is wrong, and three things come
> immediately to mind: either the inductance is more variable with
> distance from the ground plane than I think it is, or the capacitance
> is less variable, or the DC analysis does not hold when we are dealing
> with things propagating at about the speed of light.
>
> In fact, there is a clue in the fact that for the whole wire, with one
> end spaced a very small distance from the ground plane and the other
> end far away, in a DC case the charge would be clustered near the
> ground plane, with very little charge at the tip...but in a resonant
> antenna, there is often a LOT of charge out near the end that's far
> away from the ground plane.
>
> OK, that ought to be enough to get lots of conflicting responses going!
>
> Cheers,
> Tom

>

What is the transmission mode in a single conductor transmission line?
Does a coil support TEM waves, TM, or TE? Is there some type of
cutoff frequency?
How do you compute the phase velocity? How do you know the phase
velocity of an electromagnetic wave on a coil of wire isn't greater
than the speed of light in the helical direction?
People like Reg and Cecil like to simplify things to the point of
absurdity. Things that complicate the picture and disagree with their
simplifications are promptly ignored. I hope no one reading these posts
is under the false impression he's learning transmission line theory.
73,
Tom Donaly, KA6RUH

1467. Re: Current across the antenna loading coil - from scratch

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 03:14:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Lug3g.19660$tN3.6670@newssvr27.news.prodigy.net>
Source record: 60509

Gene Fuller wrote:
> Be assured that I disagree with you on a great many technical points.

Name one.
--
73, Cecil http://www.qsl.net/w5dxp

1468. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 04:35:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124r9oiqspf3527@corp.supernews.com>
Source record: 60510

n3ox.dan@gmail.com wrote:
> . . .
> Will a 4:1 current balun transform a random impedance Z1 to Z2 where
> |Z2|=|Z1|/4? I know Roy pointed out that this won't work for a voltage
> balun...

No, it won't either. The amount of error with any balun type depends on the balun construction. You'll just have to build one and see what it does.

It would be interesting to know what your antenna Z looks like on each band at the input to the existing balun. That is, what do you get when you connect your antenna to the balun output and the analyzer to the balun input?

Roy Lewallen, W7EL

1469. Approximations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 06:27:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <po2dnR8rVdFTXNDZRVnygw@bt.com>
Source record: 60511

Dear nitpickers, Tom and Tom,

Have you never heard of the word "approximation".

The Whole World is founded on Good Approximations.

The art lies in making them.

Reg.

1470. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 06:49:12 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <Fy7WANDoZcTEFAgT@ifwtech.co.uk>
Source record: 60512

Roy Lewallen wrote:
>n3ox.dan@gmail.com wrote:
>> . . .
>> Will a 4:1 current balun transform a random impedance Z1 to Z2 where
>> |Z2|=|Z1|/4? I know Roy pointed out that this won't work for a voltage
>> balun...
>
>No, it won't either. The amount of error with any balun type depends on
>the balun construction. You'll just have to build one and see what it
>does.
>
>It would be interesting to know what your antenna Z looks like on each
>band at the input to the existing balun. That is, what do you get when
>you connect your antenna to the balun output and the analyzer to the
>balun input?

Since the balun is connected to a tuner, inaccurate impedance
transformation won't matter much. The only concern would be if it's a
sign of some other problem in the balun.

For a monster 4:1 current balun of the type that has two independent
'cores', see page 30 of:
http://www.yccc.org/Articles/W1HIS/CommonModeChokesW1HIS2006Apr06.pdf
(or for short: http://tinyurl.com/qnzs3)

The whole article is about common-mode chokes, and is well worth
reading. It shows what can be done to tame a "noisy" QTH, if you're
prepared to go to extreme lengths... and this guy certainly was!

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1471. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 07:02:31 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <qpfr421mta0dak0jrsfvfp7g2fajr29n6h@4ax.com>
Source record: 60513

On 24 Apr 2006 18:09:17 -0700, "K7ITM" <k7itm@msn.com> wrote:

>Hmmm...this is getting back really close to what I was trying to get at
>when I posted the capacitance-of-a-wire-conundrum basenote a few weeks
>ago that went nowhere.

Hi Tom,

Was that because the answer was so simple, or is there some other
anticipated (yet unrevealed) factors to be tossed into the mix?

>OK, that ought to be enough to get lots of conflicting responses going!

It should, the conflict is already built in.

As I am often tagged with being obscure, it irks me to see someone
struggling to capture the crown. Tom, just what is it that is the
conundrum?

Hint, conundrums are usually emphasized with a question mark - or is
this the classical riddle that expects an answer in a pun?

73's
Richard Clark, KB7QHC

1472. Re: Approximations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 07:10:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7lir42t649muelvm4ctdf1g55ksekhtfbg@4ax.com>
Source record: 60514

On Tue, 25 Apr 2006 07:27:27 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The Whole World is founded on Good Approximations.
>
>The art lies in making them.

Hi Reggie,

The lies are in the art of making them. Whole debates are founded on
ï¿½59% error being "close enough."

73's
Richard Clark, KB7QHC

1473. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 07:44:03 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124rkq5ivspsh0f@corp.supernews.com>
Source record: 60515

Ian White GM3SEK wrote:
> Roy Lewallen wrote:
>> n3ox.dan@gmail.com wrote:
>>> . . .
>>> Will a 4:1 current balun transform a random impedance Z1 to Z2 where
>>> |Z2|=|Z1|/4? I know Roy pointed out that this won't work for a voltage
>>> balun...
>>
>> No, it won't either. The amount of error with any balun type depends
>> on the balun construction. You'll just have to build one and see what
>> it does.
>>
>> It would be interesting to know what your antenna Z looks like on each
>> band at the input to the existing balun. That is, what do you get when
>> you connect your antenna to the balun output and the analyzer to the
>> balun input?
>
> Since the balun is connected to a tuner, inaccurate impedance
> transformation won't matter much. The only concern would be if it's a
> sign of some other problem in the balun.
>

Well, yes and no. Good tuner designers go to a lot of trouble to maximize the Q of the inductors to minimize loss. It's doubtful that the Q of the balun inductance is nearly as good, so loss is liable to be higher if the balun is contributing a significant amount of reactance. Otherwise, I agree, it doesn't make much difference. The balun might move the impedance to a point where the tuner can't match it, but it's just as likely that it'll move an otherwise unmatchable impedance to within the tuner's range.

Roy Lewallen, W7EL

1474. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 07:49:26 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <I6qdna0O79OfSNDZRVnyvA@bt.com>
Source record: 60516

A choke balun has NO impedance or turns ratio. It is silly to refer to one.

To make one just wind 15 or more turns of twin speaker wire on a 2" diameter, one-hole, ferrite core.

A one-hole core is a ring with a hole in the middle.

Ferrite permeability need not be high. 200 or 300 is good enough and will provide enough inductance to cover the 160m band. Low permeability materials also have lower loss at the higher frequencies. Not that a choke balun is a lossy component. Efficiency is extremely high.

Because the length of wire is only about 1/8th of a wavelength at 30 MHz it will be ok at that frequency too.

All the talk about saturation is so much hot air. You couldn't saturate it even if you tried. The currents in the two wires run in opposite directions and cancel each other out.

It has a a lower loss and higher power-handling ability than a core wound with the usual very small diameter coax.

Reg.

1475. Re: Approximations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 08:06:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <wu-dnbkrM7WSRNDZRVnygQ@bt.com>
Source record: 60517

Richard, your use of the English language is HIGHLY approximate and
therefore prone to errors greater than 59 percent.

Reg.

1476. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 08:50:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124romns9644t7c@corp.supernews.com>
Source record: 60518

Reg Edwards wrote:
> A choke balun has NO impedance or turns ratio. It is silly to refer to
> one.

Consider me silly as well as an "old wife". A choke balun has common mode impedance, and that impedance is its single most important quality. If the common mode impedance isn't adequate, it won't perform its function. It can be measured by short circuiting the input conductors together and output conductors together to temporarily make one conductor, and measuring the impedance between the ends.

> . . .

> All the talk about saturation is so much hot air. You couldn't
> saturate it even if you tried. The currents in the two wires run in
> opposite directions and cancel each other out.

I agree that saturation isn't a problem, but disagree about the reason. Core flux density is a function of the common mode current, which is in the same direction in the wires and doesn't cancel out. The objective of the balun is to minimize this current, but in a high power system even with an effective balun, the I^2 * R loss, where I is the common mode current, can still get large enough to make the core hot. However, if you use a high-permeability, low frequency ferrite, the flux density will still be way below saturation even when the core is hot enough to break.

> . . .

Roy Lewallen, W7EL

1477. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 09:44:09 UTC
From: w8ji@akorn.net
Message-ID: <1145958249.027889.321560@u72g2000cwu.googlegroups.com>
Source record: 60519

n3ox.dan@gmail.com wrote:
> The MFJ-962C "1.5kW" Versa Tuner III description claims to contain a
> 4:1 current balun. I'm using that "balanced" output on my HF
> almost-doublet (slightly unequal leg lengths) with fairly decent
> results.
>
> The balun only has a single core. From what I understand, these "4:1
> current baluns" aren't.

Dan,

That is correct. It is impossible to make a single core (single hole) transmission line balun of any ratio other than 1:1. The MFJ balun, if you actually test it, adds terrible imbalance to the system. I know because I actually bought and measured one.

The idea for that balun came from Jerry Sevik's book about baluns and un-uns....but unfortunately the suggestion is wrong.

Trask claims to have a transmission line balun on a single core, but he actually has a simple isolation transformer. Isolation transformer designs are old as dirt. You'll see in my articles on my web page and things I wrote for ON4UN's low band DXing book that I used isolation transformers for many years on low frequency receiving antennas, as have many other people. The problem using them for transmitting is loss, possible core saturation, and core heating. The flux density in the core is very high under any load condition. They also go out of balance badly at higher frequencies.

Bottom line is the single core 4:1 current balun used by MFJ is very poor for balance, and subjects the core to unnecessary flux density. I'd get rid of it for those reasons.

73 Tom

1478. how to prevent signal collision @ 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 12:18:31 UTC
From: mazerom <electromagnetic377@yahoo.com>
Message-ID: <1145967511.918039.80240@u72g2000cwu.googlegroups.com>
Source record: 60520

1. what will happen when you have two transmitters(digital spectrum) @
the same carrier freqeuncy and is received by a superhet receiver
exactly at the same time, although unlikely (2.4ghz ISM band)
2. what are ways and means to prevent this collision?csma/ca?rts/cts
setup?how?

1479. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 12:20:19 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <444e1403$0$1012$39cecf19@news.twtelecom.net>
Source record: 60521

Tom Donaly wrote:

>
> What is the transmission mode in a single conductor transmission line?

That is a good question. I'd never thought about it. Anyone here have
experience with G Line?

tom
K0TAR

1480. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 12:40:26 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <B8CdnffTDO4khdPZnZ2dnUVZ_smdnZ2d@comcast.com>
Source record: 60522

Tom Ring wrote:

> Tom Donaly wrote:
>
>>
>> What is the transmission mode in a single conductor transmission line?
>
>
> That is a good question. I'd never thought about it. Anyone here have
> experience with G Line?
>
> tom
> K0TAR

The questions needs further refinement. Over a plane or in free space?

1481. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 13:33:22 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1145972002.556493.160340@v46g2000cwv.googlegroups.com>
Source record: 60523

Tom is correct in every respect, though he doesn't need me to confirm this. It is fairly easy to show that the Trask transformer is electrically equivalent to the popular trifilar-wound 4:1 voltage balun when wound on a single toroidal core. As such, it has no output (I wound and measured one) into a fully unbalanced load, and of course it has no choking action at all.

I do not know about binocular cores. It would seem the transformer works somewhat into an unbalanced load when built with these, maybe due to imperfect flux coupling between the two holes? I haven't measured one. And neither has Trask himself. Until he produces a true transfer function plot into a balanced and fully unbalanced load and a choking impedance plot we are left to guess. To use return loss plots to infer correct operation of a two-port network is, um, unusual.

73,
Glenn AC7ZN

1482. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 13:54:16 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <_8OdnTwFbKvjtdPZnZ2dnUVZ_v2dnZ2d@adelphia.com>
Source record: 60524

n3ox.dan@gmail.com wrote:
> An important correction: I DO NOT get a lower-than-50ohm *impedance* on
> any band.
>
> I may be taxing the limits of my '259B but this is what I measure as
> far as ballpark magnitude of impedance.
>
> 80M 225 ohms
> 60m 600 ohms
> 40m 630 ohms
> 30m 330 ohms
> 20m 420 ohms
> 17m 206 ohms
> 15m 216 ohms
> 12m 216 ohms
> 10m 180 ohms
>
> Nowhere is this resistive.
>
> So, maybe the 4:1 current balun is the more appropriate one. How does
> the impedance transformation work with reactive loads?
>
> Here are the impedances if anyone needs:
> 80m 41-j220
> 60m 500-j320
> 40m 500+j370 when paralleled with a 1k resistor (300+j1000ish?)
> 30m 39-j325
> 20m 300+j255
> 17m 50-j200
> 15m 190+j104
> 12m 70-j205
> 10m 170+j60
>
> Will a 4:1 current balun transform a random impedance Z1 to Z2 where
> |Z2|=|Z1|/4? I know Roy pointed out that this won't work for a voltage
> balun...

To the extent that the balun is working, it will work with complex
impedances as well as with a purely resistive ones.

The Trask paper has several designs for 2 core 4:1 current baluns that
should work. They need two cores. If you want really wide band
performance, you can stack a low frequency and higher frequency
ferrite toroid for each of those cores. With this approach you can
achieve a 1000 to 1 frequency range. The long tube bead ferrites make

good baluns in a small space.

1483. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 14:05:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <_7adnR1wT7G2sNPZRVny2w@bt.com>
Source record: 60525

Insert "ratio" and repeat after me -

"A choke balun has no impedance (ratio) or turns ratio."

Reg.

1484. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 14:13:35 UTC
From: Dan Richardson <k6mhe@mailinator.com>
Message-ID: <99bs4295ofm8o4atisrump9d7dfqh18alh@4ax.com>
Source record: 60426

On 25 Apr 2006 02:44:09 -0700, w8ji@akorn.net wrote:

>
>That is correct. It is impossible to make a single core (single hole)
>transmission line balun of any ratio other than 1:1. The MFJ balun, if
>you actually test it, adds terrible imbalance to the system. I know
>because I actually bought and measured one.
>
>The idea for that balun came from Jerry Sevik's book about baluns and
>un-uns....but unfortunately the suggestion is wrong.
>
>Trask claims to have a transmission line balun on a single core, but he
>actually has a simple isolation transformer. Isolation transformer
>designs are old as dirt. You'll see in my articles on my web page and
>things I wrote for ON4UN's low band DXing book that I used isolation
>transformers for many years on low frequency receiving antennas, as
>have many other people. The problem using them for transmitting is
>loss, possible core saturation, and core heating. The flux density in
>the core is very high under any load condition. They also go out of
>balance badly at higher frequencies.
>
>Bottom line is the single core 4:1 current balun used by MFJ is very
>poor for balance, and subjects the core to unnecessary flux density.
>I'd get rid of it for those reasons.
>
>73 Tom

Tom and others,

I'm wondering if anyone wants to comment on Andrew Roos, ZS1AN article
in the Sept/Oct 2005 QEX issue titled "A Better Antenna-Tuner Balun"?
Andrew placed a 1:1 choke balun in tandem with a 4:1 voltage balun and
claims an improvement over the more conventional methods.

The article is available for ARRL members at:
http://www.arrl.org/qex/2005/qx9roos.pdf

73,
Danny, K6MHE

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

1485. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 14:15:33 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <9aq3g.14186$4L1.2677@newssvr11.news.prodigy.com>
Source record: 60427

Dave wrote:
> Tom Ring wrote:
>
>> Tom Donaly wrote:
>>
>>>
>>> What is the transmission mode in a single conductor transmission line?
>>
>>
>>
>> That is a good question. I'd never thought about it. Anyone here
>> have experience with G Line?
>>
>> tom
>> K0TAR
>
>
> The questions needs further refinement. Over a plane or in free space?
>

No ground planes allowed.
73,
Tom Donaly, KA6RUH

1486. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 14:23:21 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <444e30da$0$1012$39cecf19@news.twtelecom.net>
Source record: 60428

Dave wrote:

> Tom Ring wrote:
>
>> Tom Donaly wrote:
>>
>>>
>>> What is the transmission mode in a single conductor transmission line?
>>
>>
>>
>> That is a good question. I'd never thought about it. Anyone here
>> have experience with G Line?
>>
>> tom
>> K0TAR
>
>
> The questions needs further refinement. Over a plane or in free space?
>

Properly made and installed, G Line shouldn't know the difference.

tom
K0TAR

1487. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 14:31:38 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <EfOdnRBNNPRXr9PZnZ2dnUVZ_vednZ2d@comcast.com>
Source record: 60429

Tom Ring wrote:

> Dave wrote:
>
>>SNIPPED
>>
>>
>> The questions needs further refinement. Over a plane or in free space?
>>
>
> Properly made and installed, G Line shouldn't know the difference.
>
> tom
> K0TAR

Tom, the original question is a single conductor transmission line. A
single conductor transmission line is used to feed a 'classic Windom'.

In that configuration, is it a G line?

For the uninitiated, including this questioner, what is a G line?

1488. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 15:00:45 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <444e399e$0$1007$39cecf19@news.twtelecom.net>
Source record: 60430

Dave wrote:

> Tom Ring wrote:
>
> Tom, the original question is a single conductor transmission line. A
> single conductor transmission line is used to feed a 'classic Windom'.
>
> In that configuration, is it a G line?
>
> For the uninitiated, including this questioner, what is a G line?
>

I don't believe a single bare wire will operate as a transmission line
in free space. It will radiate. G line, on the other hand, will not.
At least it won't radiate any more than a piece of coax. And it can be
used in reasonably normal situations, but no sharp bends. It is not
practical for HF, however. 70 cm would probably be as low as you would
want to go.

The quick description is that G line is a wire coated with a dielectric
to a specific thickness that is coupled to by a device resembling a
feedhorn on each end, where the horn is a flaring of the shield. As I
remember it, the dielectric discontinuity constrains the E field, and
hence the EM field. The losses are much lower than coax, on the order
of 5 dB per mile at 500 MHz.

For details see -

http://coldwar-c4i.net/G-Line/EE0860/p638.html

tom
K0TAR

1489. Re: mobile loading coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 15:22:15 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <N6r3g.45068$Jk3.7486@bignews5.bellsouth.net>
Source record: 60431

<nm5k@wt.net> wrote in message
news:1145912884.770796.133430@v46g2000cwv.googlegroups.com...
> >Thanks Cecil, I have some old fiberglass 11m antennas, the kind that has
> >a
>>wire antenna heatshrinked to a fiberglass rod that would be pefect for
>>making this. ....
>
> You can use one of those for all those bands, just by changing the
> top "stinger" whip. I use the small hose clamps to hold them, if the
> stick doesn't have a slide in mounting part on top.
> IE: if you had a 6 ft CB stick that used a short stinger, you can add
> length to tune the lower bands. On one of mine, the stinger needed to
> be about 2 ft longer to tune 20m using the CB stick. So if you had
> various
> stingers to clip on, you could work all the bands from 20-10.
> On those upper HF bands, even the simple CB stick/extended stinger
> will work quite well. A cb/10m stick using a longer stinger to tune
> 20m,
> is more efficient than most 20m sticks using more turns of wire, and a
> shorter stinger.
> I have one antenna that I've used for nearly 15 years that was built
> from a
> firestick CB antenna. I added a large coil in the middle, and it works
> all
> bands 80-10. I change coil taps on the low bands, stinger length on the
>
> upper bands.
> I also have one I made from a 6 ft 20m stick. It's also converted to
> all
> band use, and has the performance of a bugcatcher, being it uses a
> large
> coil on the lower bands. But...it's as light as a fishing rod n reel...
> I use a 5 ft stinger, and the normal driving height of the antenna is
> 11 ft.
> That antenna is exactly center loaded in the driving mode. If I add a
> 3 ft
> mast, it's 14 ft tall, with the coil at the 8 ft level. But I use that
> when parked.
> Bit tall for driving... :/ Anyway, you can build a pretty good antenna
> dirt
> cheap if you look around. I've never spent more than junk parts and
> chump change for a mobile antenna.
> MK
>

I had taken an old CB 6ft antenna, the kind with the wire heatshrinked to the side and put new wire and a loading coil in the middle. Works OK on 10 and 15 SWR is pretty high on 20 and I dont have a way to match it. Experimented with a cane pole for a support and found I could get a reasoable SWR on 20 if the antenna was about 14ft long, a couple more feet and I wouldnt even need the coil. Next plan is to try to use something that folds kind of like fiberglass tent poles and get away from the loading coils all together. They are more of a bother than what they are worth for my application since I dont ham while Im driving. I just wanted something I could store neatly in the back of the truck which would limit eveything to 6Ft or less. Changed my mind about 5 times now on what I want and how to do it, I guess that happens when you are going up the learning curve.

1490. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 15:35:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zlr3g.69460$H71.30294@newssvr13.news.prodigy.com>
Source record: 60432

Tom Ring wrote:
> I don't believe a single bare wire will operate as a transmission line
> in free space.

Let's say we have a 1/2WL dipole in free space driven by a
self-contained source at the center. If we float a florescent
light bulb around the ends of the dipole, are you saying the
electric fields won't fire the bulb like it does on earth?
--
73, Cecil http://www.qsl.net/w5dxp

1491. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 15:39:34 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145979574.458335.92430@u72g2000cwu.googlegroups.com>
Source record: 60433

Ian... extreme lengths is right! I like the ferrite cores strung onto
the 240V lines.

I'm sure this approach would help if I wasn't on a graduate student
budget and living in an apartment (though maybe I could sneak around
and install snap-on ferrites on everything?)

After reading that article and thinking back a bit, I think a real
current balun would be worthwhile.

A previous incarnation of my "invisible" antenna used *one* length of
magnet wire to a SO-239 tuner center pin and used the balcony rail
connected to the ground on the tuner.

Switching to the "balun" and two legs reduced my electric(al/onic)
noise quite a bit. I think at least trying to enforce balance is
worthwhile. I guess I need to be prepared to spend some money if I
want to be able to choke off common mode currents on all bands .
I certainly am trying to tame a noisy QTH, but I've made some progress.
As is often the case, it was mostly *my* stuff causing the noise.
Still, I've got a few persistent sources. I know *some* of it is
radiated and I'm sunk there. My 6m antenna is a moxon rectangle with a
string of 60 or so #43 beads as a balun mounted on a fiberglass mast.
Everything it's picking up is radiated :-)

Roy, I'll do the impedance measurement on the balun input, just as a
matter of curiosity, and post the results.

First pass, I think, will be the 1:1 current balun, especially if the
MFJ balun's core is of a worthwhile material. I'll let the tuner do
its job.

I'm curious about what would happen with the 4:1 current balun, butI'll
have to order some cores.

-Dan

1492. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 15:44:52 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145979892.771057.165540@y43g2000cwc.googlegroups.com>
Source record: 60434

Some more info here: http://www.answers.com/topic/goubou-line

If you search for Goubou line AND Goubau line, you can find lots more. Older editions of "Reference Data for Radio Engineers" had design info on them.

The losses, as with any good line, are mainly due to I^2*R loss in the wire. The current is lower than it would be for the same wire in coax, for a given power, and thus the loss is lower. "YMMV" when it rains, or when the line gets coated with soot and grime.

I believe I've seen it described as "quasi-TEM". Clearly if you look immediately next to the wire, you'll find magnetic field symmetrically encircling the wire, and electric field is always perpendicular to good conductors so the electric field is radial. That's the same as in coax, but if you look at the article Tom posted a reference to, you'll see that the field lines do not remain perpendicular to the wire further out.

Cheers,
Tom

1493. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 17:09:21 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <ucB8r7dBflTEFA2r@ifwtech.co.uk>
Source record: 60435

K7ITM wrote:
>Some more info here: http://www.answers.com/topic/goubou-line
>
>If you search for Goubou line AND Goubau line, you can find lots more.
>Older editions of "Reference Data for Radio Engineers" had design info
>on them.
>
>The losses, as with any good line, are mainly due to I^2*R loss in the
>wire. The current is lower than it would be for the same wire in coax,
>for a given power, and thus the loss is lower. "YMMV" when it rains,
>or when the line gets coated with soot and grime.
>
>I believe I've seen it described as "quasi-TEM". Clearly if you look
>immediately next to the wire, you'll find magnetic field symmetrically
>encircling the wire, and electric field is always perpendicular to good
>conductors so the electric field is radial. That's the same as in
>coax, but if you look at the article Tom posted a reference to, you'll
>see that the field lines do not remain perpendicular to the wire
>further out.

According to Goubau's original paper [1] the mode is a surface wave which is attached to the wire, but decays over a distance of a few wavelengths sideways from the wire. Unlike a normal TEM wave, the energy in this surface wave remains confined to its cylindrical near field, and does not radiate into the far field. Its only direction of long-distance propagation is along the wire, which is what makes it usable for transmission-line purposes.

The surface wave also has the rather odd property that on a bare wire of infinite conductivity, it will not propagate at all! However, it will propagate successfully if the wire is coated with a magnetic or a dielectric material, and for practical applications Goubau favoured various forms of insulated wire.

The practical problem is that the surface wave requires a feedhorn of several wavelengths in diameter, to selectively excite this particular mode without also exciting the radiating TEM mode. Out along the wire, any disturbance to the propagating fields tends to cause mode conversion back into TEM, which makes the G-line revert to radiating like any normal wire antenna. When the wire is viewed as a transmission line, any far-field radiation represents a loss.

To sum up, the G-line surface wave is very different from the normal TEM waves around an isolated wire. Unless you take specific steps to excite this particular mode, it won't occur at all, so it isn't relevant to the

main topic under discussion.

[1] Georg Goubau, 'Single-conductor Surface-Wave Transmission Lines'.
Proc IRE, June 1951, pp 619-624.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1494. Re: Approximations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 17:40:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fhns4217f8vqr6v7pqfjt11e72a18v895m@4ax.com>
Source record: 60436

On Tue, 25 Apr 2006 09:06:24 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Richard, your use of the English language is HIGHLY approximate and
>therefore prone to errors greater than 59 percent.
>----
>Reg.
>
I'm sorry Reggie, Old Son, but being a native speaker does not elevate
your opinion to that of expert. In fact, your being British is the
single most negative mark against you in that respect. Your precision
is merely adequate to conversing with the corner grocer - luckily your
software code does not tolerate such abiquity. We would have far more
intelligent conversations with you if you stuck with Pascal instead.
Even the sewer rats of Rio would notice you had something to say.

73's
Richard Clark, KB7QHC

1495. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 18:16:48 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <444e6790$0$1007$39cecf19@news.twtelecom.net>
Source record: 60437

Cecil Moore wrote:

> Tom Ring wrote:
>
>> I don't believe a single bare wire will operate as a transmission line
>> in free space.
>
>
> Let's say we have a 1/2WL dipole in free space driven by a
> self-contained source at the center. If we float a florescent
> light bulb around the ends of the dipole, are you saying the
> electric fields won't fire the bulb like it does on earth?

Stop acting like an idiot Cecil.

tom
K0TAR

1496. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 18:31:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124sqnlh28cqg87@corp.supernews.com>
Source record: 60438

It's a mistake to think that just because an antenna looks like it has one wire (although it really always has two) that it bears any similarity to a G line in operation. Whatever mode a G line effects, it isn't the same as an antenna -- a G line doesn't radiate significantly unless bent or improperly constructed.

Roy Lewallen, W7EL

Tom Ring wrote:
> Tom Donaly wrote:
>
>>
>> What is the transmission mode in a single conductor transmission line?
>
> That is a good question. I'd never thought about it. Anyone here have
> experience with G Line?
>
> tom
> K0TAR

1497. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 18:33:00 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1145989980.551307.153400@j33g2000cwa.googlegroups.com>
Source record: 60439

I appreciate Danny's question as it allowed me to pull out that article, which I had marked for more careful study. I'm not a transformer expert but two things about the article strike me:

1. Andrew seems to have the transformers connected in the wrong order. If he wants the 1:1 current balun to operate at a lower impedance it should be on the 50 ohm side of the voltage transformer, I should think.

2. Andrew fails to compare his scheme with its most obvious competitor, the 4:1 two-core Guanella current balun. This would be an interesting comparison as the Guanella can use smaller cores (did you see the size of the voltage balun in the picture? Pretty big compared to the current balun), but the windings operate with 100 Ohms impedance at each end instead of 50.

But Andrew's scheme ought to basically work, and better than any single core scheme. I'll bet the experts on this list could help further.

73,
Glenn AC7ZN

1498. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 18:47:58 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <444e6edf$0$1015$39cecf19@news.twtelecom.net>
Source record: 60440

Ian White GM3SEK wrote:
<snip>
> To sum up, the G-line surface wave is very different from the normal TEM
> waves around an isolated wire. Unless you take specific steps to excite
> this particular mode, it won't occur at all, so it isn't relevant to the
> main topic under discussion.
>

Ian,

Thanks for the explanation. It was very helpful as well as concise.

And I didn't think it had much to do with the main topic when I diverted
to this one, except for the phrase "single wire transmission line", but
that never stopped anyone else here before! ;)

tom
K0TAR

1499. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 18:57:46 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1145991465.986762.71490@e56g2000cwe.googlegroups.com>
Source record: 60441

The imaginary part of these numbers seem a bit odd (oh no, only three
of them are odd--the rest are even). Is your antenna resonant on any
band?
I'm probably not well-versed in all the impedances an antenna/feedline
can take at the tuner, but would like to know what antenna and feedline
this is.
73,
Glenn AC7ZN

1500. Re: how to prevent signal collision @ 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 19:28:08 UTC
From: dplatt@radagast.org
Message-ID: <124su28i4pg2dbb@corp.supernews.com>
Source record: 60443

In article <1145967511.918039.80240@u72g2000cwu.googlegroups.com>,
mazerom <electromagnetic377@yahoo.com> wrote:

>1. what will happen when you have two transmitters(digital spectrum) @
>the same carrier freqeuncy and is received by a superhet receiver
>exactly at the same time, although unlikely (2.4ghz ISM band)

The same thing that happens in any similar situation at lower
frequencies. The two carriers will interfere. Unless they are
accurately locked to a common frequency reference (unlikely) there
will be a significant beating between them. The information-carrying
sidebands of the two transmissions are likely to interfere, and the
transmissions are likely to be garbled at their intended reception
points. The degree of garbling/interference will depend on the signal
strengths and also on the modulation scheme used.

>2. what are ways and means to prevent this collision?csma/ca?rts/cts
>setup?how?

There are several approaches which have been used.

The simplest is probably CSMA/CA, where each stations listens, doesn't
transmit when it detects a carrier, and waits for some variable amount
of time (often randomly-chosen) after carrier goes away before it
starts transmitting. You'll tend to find this used in ad-hoc networks
of various sorts, where there's no central coordinating authority for
the right-to-transmit. For example, most amateur-radio AX.25 packet
networks here in the US work this way. Collision rate tends to go up,
and bandwidth utilization maxes out and decreases when there are many
stations trying to operate on a single frequency.

The classic problem with CSMA/CA on radio is the "hidden node"
problem. If two nodes can't hear one another, they can't avoid one
another... and their transmissions can often both be heard at other
stations and will interfere.

A second approach is an RTS/CTS system, coordinated by a central node
which can be heard by all other nodes. This is a common mode on
802.11b networks, where coordination is performed by the 802.11b
access point.

A third approach is a polling approach, where the outlying nodes never
transmit (not even an RTS) until specifically polled by the central
authority-node. I believe that many of the AX.25 packet networks in
Europe use this approach, in order to minimize collisions and improve
bandwidth utilization over what's possible with CSMA/CA.

If there's no central authority to handle polling or RTS/CTS, then some form of ad-hoc "token passing" can be used, where each node receives an explicit handoff of the right-to-transmit from another node, and either sends what it has to send, or forwards the right-to-transmit packet to the next node in the sequence.

Time-division multiplexing (e.g. slotted Aloha) is another method... nodes coordinate to agree on which time slots each is allowed to transmit in. This can minimize or eliminate collisions (except perhaps during setup) but it can waste bandwidth, because timeslots can go unused if the nodes which "own" them don't have anything to say at the moment.

So - there are lots of approaches - which one is best depends a great deal on the environment and application.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

1501. Re: Approximations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 19:28:10 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1145993290.093005.175380@i40g2000cwc.googlegroups.com>
Source record: 60442

Regarding the use of English, I will interpret your opening line as excluding Tom and me from the ranks of nitpickers. Thank you for the comma.

Indeed, we build our world on approximations. Even Maxwell and friends gave us only approximations, though ones that are far better than we need for the things we do with our HF or even microwave antennas.

But if I'm given two DIFFERENT ways to approximate the same thing, and they give me VERY different answers, then I'd like to understand the situation better. In other words, I'm exactly interested in that art you mention, and in being able to judge when others claim to know that art but in fact do not. They can try to lead me astray, but I don't have to let them.

In other words, if you or anyone else gives me answers, directly or through graphs or computer programs or whatever, I'd like to be able to judge the validity of those answers for what I'm trying to accomplish. I trust that's not a goal you'd disagree with, but perhaps you will.

I also am much more wary of people who just give answers with no indication of the degree to which they are approximations, than I am of people who explain that their answers are approximations and to what degree and why they are.

In this case, I happen to think that it's worthwhile understanding WHY the DC capacitance isn't very useful in the dynamic situation of an antenna. Thankfully, for those who can't figure that out for themselves, there are some decent explanations kicking around.

Cheers,
Tom

1502. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 19:38:25 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e2ltridnr1@avnika.corp.mot.com>
Source record: 60446
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Chill guys. Think a moment...Who's the lame of mind here. The OP with 1
post or the 60 responses... Looks like he suckered y'all in and had the
desired effect
73, Steve, K9DCI

"Skirt Chaser" <my.em@il.dont.work>

**** NOTE: his brain dont [sic] either...

1503. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 19:42:14 UTC
From: richardharrison@webtv.net
Message-ID: <8483-444E7B96-1025@storefull-3254.bay.webtv.net>
Source record: 60445

Reg, G4FGQ wrote:
"I`m even more certain you will find an equation for inductance of an isolated wire of length L: and diameter D somewhere in the bibles."

Equation 14 on page 48 of Terman`s 1943 edition of "Radio Engineers` Handbook is:

Lo = 0.00508 l (2.303 log 4l/d - 1+mu/4) microhenrys

Lo is the (approximate) low-frequency inductance and the dimensions are in inches.

Terman also gives the (approximate) low-frequency inductance formula of a single-layer solenoid on page 55 of the same book.

One can find the resonant frequency of the coil when using a known capacitance to resonate the coil at a low frequency. Maybe a dip meter could be used. Capacitive and inductive reactances are equal at resonance. Self and stray capacitances are included with the known value of capacitance used to resonate the coil at the low frequency. The resonant frequency is lower than the known capacitance by itself would produce.

The resonance formula used with the actual inductance of the coil will give the capacitance of the resonant circuit

The difference between the calculated capacitance and the known capacitor value is equal to the stray and self-capacitance total, so it is good to minimise stray capacitance when seeking the self-capacitance value of the coil.

An ARRL Single-Layer Coil Winding Calculator is a slide rule which makes things easy.

Best regards, Richard Harrison, KB5WZI

1504. Re: blame those that enage in gaybashing for the gay bashing posts

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 19:45:35 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1145994335.230140.183460@j33g2000cwa.googlegroups.com>
Source record: 60444
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 24 Apr 2006 18:26:22 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:
>
> >
> >Slow Code wrote:
> >> Fred <freddyr1928@ll.net> wrote in
> >> news:rgvl42tilp789fgb9oqttm530qeu843upv@4ax.com:
> >>
> >west
> >> >
> >> > Can you read? Markie is here pushing his gay agenda and he is spamming
> >> > our group. Why do you choose to be so dense?
> >>
> >>
> >> Just to stir I'm thinking. He must get a kick out of watching Mark
> >> butcher the english language day in & day out.
> >>
> >or just can't face the facts I have the same rights he does
>
>
> If you have the right to push your gay agenda then we are all allowed
> to publicly laugh at your confused ass.
not according some points of law
> You can't even pick sides
> sexually, yet you push the gay lifestyle hard.
you might try tell the truth

or is that beyond your abilities

> Find your rainbow,
> Mark. Then catch a case of AIDS and make the world a better place.

and so you prove yourself a bigot and gully and a truly sick person

1505. Re: MFJ Tuner "Current Balun" conversion.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 21:04:14 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1145999054.035570.306690@g10g2000cwb.googlegroups.com>
Source record: 60447

My antenna is not resonant on any amateur band. It gets almost there
around 4.1MHz.
(SWR 1.8:1 or something) It's an unequal leg length variously bent
doublet made with whatever length of 30 gauge magnet wire I managed to
fling out into the trees on that particular occasion.

Approximately: one leg 60 feet long about 24 feet high at the feed,
about 35 feet high at the other end. The other leg about 50 feet long,
bent groundward at a point 35 feet up and 30 feet out with an almost
vertical descending portion.

The "feedline" is a slightly tapered open wire section of the same
magnet wire with more or less 1.25 inch spacing. It's only about 4
feet long.

The antenna tuner is hidden in a big blue wooden box on my balcony
directly under the antenna feed, so I don't need much of a run of
feedline. I set plants on it.

The length numbers are *very* approximate. I've paced out the
tree-balcony distance and also checked with google earth, but I figured
a tape measure might be a bit suspicious.

I actually have very little trouble tuning the antenna. I do have a
lot of noise and removing all I can of the conducted component would
serve me well, I think.

73,
Dan
N3OX

glenn.b.dixon@gmail.com wrote:
> The imaginary part of these numbers seem a bit odd (oh no, only three
> of them are odd--the rest are even). Is your antenna resonant on any
> band?
> I'm probably not well-versed in all the impedances an antenna/feedline
> can take at the tuner, but would like to know what antenna and feedline
> this is.
> 73,
> Glenn AC7ZN

1506. J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 21:41:30 UTC
From: jimbo <jimbo62@spamex.com>
Message-ID: <cq2dnXJUtOYYCtPZnZ2dnUVZ_tednZ2d@comcast.com>
Source record: 60448

I have been trying to get an acceptable 2 meter antenna installed in my attic. A J-Pole seemed to me the best solution for my attic space. You may recall an earlier post where I discussed SWR on one of the ladder line J-Poles I was working with. Well, I gave up on ladder line and constructed a J-Pole from 1/2 inch copper tubing. I tuned it in my basement work shop to give the best SWR and then took it up to the attic. The following table shows the results.

Basement Attic

144 1.90 1.80
145 1.65 2.00
146 1.50 2.10
147 1.60 2.25
147.995 1.90 2.25

Actually, probably not that bad for a first attempt at copper tubing. But, I didn't like the fact that SWR was above 2.0 in my attic and that things changed between my basement shop and the attic. I guess this design is influenced by objects close by.

So, somewhere in my surfing I came across the Arrow J-Pole. This is an end fed, open stub commercial design that promises less that 1.5 SWR across the band. Here are the results of my experiment with this antenna.

Basement Attic

144 1.10 1.22
145 1.18 1.10
146 1.25 1.20
147 1.30 1.32
147.995 1.40 1.42

Not 1.0 SWR but certainly met the promise. And the best thing about this design is that near by objects don't seem to have an impact on performance. If I built one of these designs and tuned it in my basement shop, it should give the same results in the attic.

Anyway, just my subjective observations.

jimbo - AJ7IM

1507. Re: how to prevent signal collision @ 2.4ghz

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 21:57:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ap6t421m7n4rgutr2b53mjd0ffuput0q83@4ax.com>
Source record: 60450

On 25 Apr 2006 05:18:31 -0700, "mazerom"
<electromagnetic377@yahoo.com> wrote:

>1. what will happen when you have two transmitters(digital spectrum) @
>the same carrier freqeuncy and is received by a superhet receiver
>exactly at the same time, although unlikely (2.4ghz ISM band)

You will hear noise. Of course, with only one signal you will hear
noise.

>2. what are ways and means to prevent this collision?csma/ca?rts/cts
>setup?how?

Slip the gold code.

73's
Richard Clark, KB7QHC

1508. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 21:59:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124t6thopj1pea7@corp.supernews.com>
Source record: 60449

That's all very nice. Let's see if it's useful for anything.

A while back, Cecil posted a model of a base loaded vertical antenna. It has an inductor which is vertically oriented. The bottom of the inductor is 1 foot from the ground and the inductor is 1 foot long and six inches in diameter. Inductance is 38.5 uH and it's self resonant at 13.48 MHz. (Moving it very far from ground changes the resonant frequency to 13.52 MHz.)

What's it's velocity factor, and how did you calculate it?

Roy Lewallen, W7EL

Richard Harrison wrote:
> Reg, G4FGQ wrote:
> "I`m even more certain you will find an equation for inductance of an
> isolated wire of length L: and diameter D somewhere in the bibles."
>
> Equation 14 on page 48 of Terman`s 1943 edition of "Radio Engineers`
> Handbook is:
>
> Lo = 0.00508 l (2.303 log 4l/d - 1+mu/4) microhenrys
>
> Lo is the (approximate) low-frequency inductance and the dimensions are
> in inches.
>
> Terman also gives the (approximate) low-frequency inductance formula of
> a single-layer solenoid on page 55 of the same book.
>
> One can find the resonant frequency of the coil when using a known
> capacitance to resonate the coil at a low frequency. Maybe a dip meter
> could be used. Capacitive and inductive reactances are equal at
> resonance. Self and stray capacitances are included with the known value
> of capacitance used to resonate the coil at the low frequency. The
> resonant frequency is lower than the known capacitance by itself would
> produce.
>
> The resonance formula used with the actual inductance of the coil will
> give the capacitance of the resonant circuit
>
> The difference between the calculated capacitance and the known
> capacitor value is equal to the stray and self-capacitance total, so it
> is good to minimise stray capacitance when seeking the self-capacitance
> value of the coil.
>

> An ARRL Single-Layer Coil Winding Calculator is a slide rule which makes
> things easy.
>
> Best regards, Richard Harrison, KB5WZI
>

1509. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 23:17:04 UTC
From: chuck <nospam@nospam.net>
Message-ID: <Q5y3g.12719$i41.11658@newsread1.news.atl.earthlink.net>
Source record: 60451

Roy Lewallen wrote:
> I did a search quite some time ago and failed completely in finding the
> formula you describe, in Terman or any other "bible". The formula for
> the capacitance of an isolated sphere is common, but not a cylinder. The
> formula for a coaxial capacitor is common also, but the capacitance
> calculated from it approaches zero as the outer cylinder diameter gets
> infinite.
>

Roy, I can't answer the question you put to Reg, but the capacitance of an isolated conducting cylinder is approximately that of an isolated conducting sphere of the same surface area. Any unbalanced charge on a conductor resides on the surface of the conductor and so the greater the surface area, the greater the charge you can place on it to raise its potential by some amount, etc. Obviously the cylinder's electric field would depart from the radial field of a point charge at the center of the sphere but I don't think that's relevant in this case. I hear bells ringing. ;-)

Chuck

> Maybe you could take a look after the wine wears off, and see if you can
> locate the formula. By your earlier posting, it sounds like you've used
> it frequently, so it shouldn't be too hard to find. I'd appreciate it
> greatly if you would. And yes, I would make use of the formula -- I'm
> very curious about how well a coil can be simulated as a transmission
> line. The formula you use would be valid only in isolation, so
> capacitance to other wires, current carrying conductors, and so forth
> would have an appreciable effect. I showed not long ago that capacitance
> from a base loading coil to ground has a very noticeable effect. Do you
> have a way of taking that into account also?
>
> Roy Lewallen, W7EL
>
> Reg Edwards wrote:
>
>>> How do you calculate the coil C to use in the transmission line
>>
>> formulas?
>>
>>> Roy Lewallen, W7EL
>>
>> ==========
>>
>> I'm surprised a person of your knowledge asked.

>>
>> Go to Terman's or other bibles, I'm sure you'll find it somewhere, and
>> find the formula to calculate the DC capacitance to its surroundings
>> of a cylinder of length L and diameter D.
>>
>> Then do the obvious and distribute the capacitance uniformly along its
>> length.
>>
>> The formula will very likely be found in the same chapter as the
>> inductance of a wire of given length and diameter.
>>
>> I have the capacitance formula I derived myself somewhere in my
>> ancient tattered notes but I can't remember which of the A to S
>> volumes it is in.
>>
>> I'm 3/4 ot the way down a bottle of French Red plonk. But Terman et
>> al should be be quite good enough for your purposes.
>>
>> And its just the principle of the thing which matters. It's simple
>> enough. I don't suppose you will make use of a formula if and when
>> you find one.
>> ----
>> Reg.
>>
>>

1510. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-25 23:43:11 UTC
From: jgboyles@aol.com
Message-ID: <1146008591.641742.237030@y43g2000cwc.googlegroups.com>
Source record: 60452

jimbo wrote:
> I have been trying to get an acceptable 2 meter antenna installed in
> my attic. A J-Pole seemed to me the best solution for my attic space.
> You may recall an earlier post where I discussed SWR on one of the
> ladder line J-Poles I was working with. Well, I gave up on ladder line
> and constructed a J-Pole from 1/2 inch copper tubing. I tuned it in my
> basement work shop to give the best SWR and then took it up to the
> attic. The following table shows the results.
>
> Basement Attic
>
> 144 1.90 1.80
> 145 1.65 2.00
> 146 1.50 2.10
> 147 1.60 2.25
> 147.995 1.90 2.25
>
> Actually, probably not that bad for a first attempt at copper tubing.
> But, I didn't like the fact that SWR was above 2.0 in my attic and
> that things changed between my basement shop and the attic. I guess
> this design is influenced by objects close by.
>
> So, somewhere in my surfing I came across the Arrow J-Pole. This is an
> end fed, open stub commercial design that promises less that 1.5 SWR
> across the band. Here are the results of my experiment with this antenna.
>
> Basement Attic
>
> 144 1.10 1.22
> 145 1.18 1.10
> 146 1.25 1.20
> 147 1.30 1.32
> 147.995 1.40 1.42
>
> Not 1.0 SWR but certainly met the promise. And the best thing about
> this design is that near by objects don't seem to have an impact on
> performance. If I built one of these designs and tuned it in my
> basement shop, it should give the same results in the attic.
>
> Anyway, just my subjective observations.
>
> jimbo - AJ7IM

Hi Jimbo, it has been my experience, and everybody else's that an indoor or attic J-pole is unpredictable. A high impedance end fed antenna in an attic environment will be hard to predict. Moving it one foot can effect things.
You might consider the SO-239 ground plane. It can be built and tuned in 30 minutes, is 50 ohms, so it will not be so concerned about its environment. Likely you could not tell a difference in performance from a J-pole especially if they are both in the attic.
Oh yes, the standard-if the SWR is below 3.0, don't worry about it.
Gary N4AST

1511. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 00:11:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <124telebjpfet2b@corp.supernews.com>
Source record: 60453

Roy Lewallen wrote:

> What's it's velocity factor, and how did you calculate it?

I can't believe I did that! It must be from spending too much time reading Internet postings. Of course I meant:

> What's its velocity factor, and how did you calculate it?
^^^

I knew better than that by the time I'd finished grade school. Hope it isn't all downhill from here.

Roy Lewallen, W7EL

1512. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 00:23:08 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <124tfbo3tags68c@corp.supernews.com>
Source record: 60454
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e2ltridnr1@avnika.corp.mot.com...
> Chill guys. Think a moment...Who's the lame of mind here. The OP with 1
> post or the 60 responses... Looks like he suckered y'all in and had the
> desired effect
> 73, Steve, K9DCI
>
> "Skirt Chaser" <my.em@il.dont.work>
>
> **** NOTE: his brain dont [sic] either...
>
>
Make that 61 with your response. BTW, Skirt Chaser is also known as Slow
Code, a supposed ham that is too cowardly to include his call sign.

1513. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 01:42:49 UTC
From: Buck <not@this.time>
Message-ID: <4tjt42lg6k5ustfmiljfkpiqdle084d0iq@4ax.com>
Source record: 60455

On 25 Apr 2006 16:43:11 -0700, jgboyles@aol.com wrote:

>
>jimbo wrote:
SNIP
>> jimbo - AJ7IM
>
> Hi Jimbo, it has been my experience, and everybody else's that an
>indoor or attic J-pole is unpredictable. A high impedance end fed
>antenna in an attic environment will be hard to predict. Moving it one
>foot can effect things.
> You might consider the SO-239 ground plane. It can be built and
>tuned in 30 minutes, is 50 ohms, so it will not be so concerned about
>its environment. Likely you could not tell a difference in performance
>from a J-pole especially if they are both in the attic.
> Oh yes, the standard-if the SWR is below 3.0, don't worry about it.
>Gary N4AST

I started building dipole antennas. they can be mounted horizontal or
vertical and easily moved around. I use cpvc with a dipole wire
inside and a coax-choke balun. They work quite well.

Just another option.
--
73 for now
Buck
N4PGW

1514. blame the poster for the posts

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 01:57:04 UTC
From: an old freid to some a nightmare to steve <kb9rqz__ars@hotmail.com>
Message-ID: <1146016624.557466.51680@g10g2000cwb.googlegroups.com>
Source record: 60456
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

```
Dr.Death wrote:
> "Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
> news:e2ltri$dnr$1@avnika.corp.mot.com...
> > Chill guys. Think a moment...Who's the lame of mind here. The OP with 1
> > post or the 60 responses... Looks like he suckered y'all in and had the
> > desired effect
> > 73, Steve, K9DCI
> >
> > "Skirt Chaser" <my.em@il.dont.work>
> >
> > **** NOTE: his brain dont [sic] either...
> >
> >
> Make that 61 with your response. BTW, Skirt Chaser is also known as Slow
> Code, a supposed ham that is too cowardly to include his call sign.

get you are countingthem up
```

1515. Re: mobile loading coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 03:24:47 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <uLB3g.45878$Jk3.30684@bignews5.bellsouth.net>
Source record: 60457

"Buck" <not@this.time> wrote in message
news:t9jo4219dvidni11gkp8gqjljnie2ct12h@4ax.com...
>
>> I went to the Home Depot today and found some chimney sweeper brush
>> handles
>>. These are about 4 ft long each made of fiberglass and screw together. A
>>few of these in the back of the truck will allow me to put together nearly
>>any length antenna I need. Im thinking 40M may be a practical limit Dont
>>worry I dont drive and ham at the same time.
>>
>
> how much were the sweeper handles?
>
> --
> 73 for now
> Buck
> N4PGW

Buck, when I saw them there wasnt a price on the handles so I went back today to check. All of the chimney sweep items were gone. I checked and found that these items are seasonal and wont be back out until August or September, day late and a dollar short. It doesnt make sense to me, this is the time of year that they should be out. I have never cleaned a chimney but have had it done and you dont do it during the heating season.

Oh well, I still think these have great possibilities as antenna parts barring they dont turn out to be super expensive.

Jimmie

1516. Coax Bulkhead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 04:12:09 UTC
From: west <westley@tampabay.rr.com>
Message-ID: <tqC3g.1800$%x.1050@tornado.tampabay.rr.com>
Source record: 60458

Is there a place on the net, in a book, etc. that I can see examples & diagrams of a coax bulkhead? My house sits on a slab and I want to run about 4 or 5 coax cables, rotor cable, AC & DC source all going from the shack to my tower. In Florida lightning is a major concern so the bulkhead will have to have coax & other type of arrestors. All this is grounded to a copper ground rod & the cables, of course, to my shack. I would like this outside "box" nicely & neatly dressed & labeled so it's easy to disconnect & not an eye sore. I searched the Ham books and many Internet sights to no avail. Anybody? Thank you.

west, AF4GC

1517. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 05:32:36 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <YBD3g.6995$QP4.6577@fed1read12>
Source record: 60459

"jimbo" <jimbo62@spamex.com> wrote in message
news:cq2dnXJUtOYYCtPZnZ2dnUVZ_tednZ2d@comcast.com...
> I have been trying to get an acceptable 2 meter antenna installed in
> my attic. A J-Pole seemed to me the best solution for my attic space.
> You may recall an earlier post where I discussed SWR on one of the
> ladder line J-Poles I was working with. Well, I gave up on ladder line
> and constructed a J-Pole from 1/2 inch copper tubing. I tuned it in my
> basement work shop to give the best SWR and then took it up to the
> attic. The following table shows the results.
>
> Basement Attic
>
> 144 1.90 1.80
> 145 1.65 2.00
> 146 1.50 2.10
> 147 1.60 2.25
> 147.995 1.90 2.25
>
> Actually, probably not that bad for a first attempt at copper tubing.
> But, I didn't like the fact that SWR was above 2.0 in my attic and
> that things changed between my basement shop and the attic. I guess
> this design is influenced by objects close by.
>
> So, somewhere in my surfing I came across the Arrow J-Pole. This is an
> end fed, open stub commercial design that promises less that 1.5 SWR
> across the band. Here are the results of my experiment with this antenna.
>
> Basement Attic
>
> 144 1.10 1.22
> 145 1.18 1.10
> 146 1.25 1.20
> 147 1.30 1.32
> 147.995 1.40 1.42
>
> Not 1.0 SWR but certainly met the promise. And the best thing about
> this design is that near by objects don't seem to have an impact on
> performance. If I built one of these designs and tuned it in my
> basement shop, it should give the same results in the attic.
>
> Anyway, just my subjective observations.
>

Not to detract from the other posters ... IMO they all made valid comments, but I offer this:

As the builder of about 20 copper pipe j-poles, I discovered that I can get a better final VSWR if I include a 100 pF (or so) cap in the side fed by the coax center.

I had been attaching an SO-239-type bulkhead connector to the short side of the J and running a piece of solid wire from the center pin over to the long side of the J. I could get the VSWR to a dip near the middle of the band by monkeying with the feed point and/or trimming the length but the lowest I usually got was around 1.5 : 1. As soon as I used the cap in place of the straight wire, I could get 1:1. It works for me ... your mileage may vary.

I built more j-poles for 2M than all the others combined and 20 is not a lot of antennas. For some reason, the cap seems to help the 2M size more than it helps the others, but these antennas are too few in number for scientific judgements by this amateur plumber.

73,
John

1518. Re: Coax Bulkhead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 07:08:49 UTC
From: Jeff <jeff@local.host>
Message-ID: <e2n67g$n16$1@emma.aioe.org>
Source record: 60460

I would try the connector manufacturers' websites, such as Amphenol, Radial, Schuner, etc, and perhaps Polyphaser for arrestors.

Regards
Jeff

"west" <westley@tampabay.rr.com> wrote in message news:tqC3g.1800$%x.1050@tornado.tampabay.rr.com...
> Is there a place on the net, in a book, etc. that I can see examples &
> diagrams of a coax bulkhead? My house sits on a slab and I want to run
> about
> 4 or 5 coax cables, rotor cable, AC & DC source all going from the shack
> to
> my tower. In Florida lightning is a major concern so the bulkhead will
> have
> to have coax & other type of arrestors. All this is grounded to a copper
> ground rod & the cables, of course, to my shack. I would like this outside
> "box" nicely & neatly dressed & labeled so it's easy to disconnect & not
> an
> eye sore. I searched the Ham books and many Internet sights to no avail.
> Anybody? Thank you.
>
> west, AF4GC
>
>

1519. Re: mobile loading coils

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 07:46:54 UTC
From: nm5k@wt.net
Message-ID: <1146037614.794897.304330@u72g2000cwu.googlegroups.com>
Source record: 60461

There are quite a few ways you can match them. You can use a
coil at the feedpoint, IE: like the "dollar special" matcher in the
handbooks, or you can use an L tuner, or sometimes just a cap alone.
A few turns of the loading coil can be applied as part of the matching
too
if needed. Most of the "stick" antennas have the matching coil wound
at the base of the antenna. Most any old tuner would match it. Even a
cheap random wire tuner would work fine. You just reverse the
connections
for low Z use if you need to.
With the 6 ft stick I have, I put the coil at the top, and then added 5
ft of
stinger on top of the stick. So it came out center loaded, being the
coil
is a few inches long. The first one I built had the coil about 2.5 ft
above
the base. I still use it on the truck when I'm whacking a lot of low
trees.
I use the tall coil version when I more out in the clear. On my play
truck,
the mount is up on the cab at 64 inches from the ground. I hit trees a
plenty,
but have never hurt one of the antennas yet. The stinger just bounces
off
most of the time, and if I do hit the glass part, it just bends and
snaps
back. I don't use a spring. On the higher HF bands, even a loaded
antenna will still work real well. Even most hamsticks unmodified
will do ok. Both mine use fairly large coils. About 2.5 -3 inches
dia...
So electrically, about the same as a bugcatcher as far as performance
without all that heavy weight that the average bugcatcher entails.
I use the 3 ft mast at the base when parked, and on the low bands.
The coil is nearly 8 ft above the cab and the tip of the antenna at
about
19 ft. Kicks butt, even on 80m.. :)
MK

1520. Re: M2 6 Meter Yegis

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 08:09:54 UTC
From: nm5k@wt.net
Message-ID: <1146038994.393985.159500@y43g2000cwc.googlegroups.com>
Source record: 60462

Dunno about yagi's in particular, but for verticals I always had good luck with thin elements. I have a 40 m ground plane I built from a junk 5/8 cb antenna. I just added thinner and thinner tubing to reach 32 ft. The top 3 ft was actually a whip from a mobile antenna. It would bend a good bit in strong wind, but never broke, and always bounced back up straight after the wind was gone. Anway, I think ice might make the thin yagi elements droop a bit, but I kinda doubt they would break.

Once melted, should look normal. C/C elements dropping? Dunno... That would have to be some rusted out hardware. I just got a C/C 4218 this past weekend, and looking at it, I really doubt it's going to

be dropping any elements. The bolts holding the clamps would have to break. That antenna should brown the food on 144 mhz... :) I got it dirt
cheap, and it's all intact. Just needs a cleaning, and I think I'm going
to change the hardware to stainless if I ever stick it in the air.
I use a homebrew 3 el for 6m made completely from copper tubing.
It's all welded together one piece. I also got a free drake R4C this weekend...It was real dirty, but I've semi cleaned it up, turned it on, and danged if it doesn't work half decent... So now I've got one of the

first R4's ever built, and one of the last... My old R4 is #0058... One of the first churned out in 65... This C line radio is #22971...I guess

they built a few... I still got some more work to do on it, but I think it
will clean up pretty nice.
MK

1521. Re: Coax Bulkhead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 10:05:21 UTC
From: Buck <not@this.time>
Message-ID: <tchu4296962egba4g9r95mv00fgc28jphv@4ax.com>
Source record: 60463

On Wed, 26 Apr 2006 04:12:09 GMT, "west" <westley@tampabay.rr.com>
wrote:

>Is there a place on the net, in a book, etc. that I can see examples &
>diagrams of a coax bulkhead? My house sits on a slab and I want to run about
>4 or 5 coax cables, rotor cable, AC & DC source all going from the shack to
>my tower. In Florida lightning is a major concern so the bulkhead will have
>to have coax & other type of arrestors. All this is grounded to a copper
>ground rod & the cables, of course, to my shack. I would like this outside
>"box" nicely & neatly dressed & labeled so it's easy to disconnect & not an
>eye sore. I searched the Ham books and many Internet sights to no avail.
>Anybody? Thank you.
>
>west, AF4GC
>

Don't use the 'gap' type arrestors for the antenna feeds. They look
great, but by the time the spark jumps, it will have fried your
finals. Use the gas types where the charge is arrested more quickly
than the gap styles.

--
73 for now
Buck
N4PGW

1522. Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 10:50:05 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <S_2dnbu5se51zdLZRVnyug@bt.com>
Source record: 60464

There is much correspondence on these walls about protecting equipment and property from lightning strikes. But there is never anything said about protecting people. Where are your concerns?

In this country, UK, I can't remember the last time I read in the newspaper about anybody being killed by lightning. It is extremely rare.

It doesn't appear to give US citizens much cause for concern. Are you all very brave? Or have you just got used to it.

Just curious. What is the annual death rate due to lightning, per head of population, in states like Florida? Do you keep statistics?

How does it compare with the death rate from being chewed to death by alligators in Florida swamps? Or dying from rattlesnake bites in Arizona? Does lightning make it to the newspapers?

Reg.

1523. Re: Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 13:45:36 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <desu42tevv8ojc7844q0v9gttegledhj3h@4ax.com>
Source record: 60465

I think most of us choose to ignore risks that are beyond our perceived control. We have some pretty violent storm activity in the area I live (central North Carolina) but death and structure damage seem to be rare. Most of the time the human body represents a higher impedance path than its surroundings.

On the other hand, electronic property damage is common. It seems to go with certain locations. I live in one of those locations and I have taken all of the precautions I can think of over the winter months. We have had a couple of storms in the past week without noticeable damage. I am certain that the house took a hit on Saturday morning on the new lightning rod system at the east end of the structure. It sounded different than the usual damaging strike. It was more of a drawn out event (half a second or so) than the damaging explosive sound. I am speculating of course.

Last night a less threatening storm came through with no damage noted. However I have two Labrador Retriever dogs, "Shadow" an 85 pound black female that is especially smart, and "Bear" 130 pounds of white macho male. Shadow always takes refuge in the bath tub and Bear gets as close to me as he can for a storm. Last night I spent two hours on the floor comforting Bear during the storm and wondering if the dogs might simply be smarter than I!

I have had strikes in the past that resulted in "fireballs" bouncing through the room. The dogs came by the fear as a result.

IMHO, the difference between bravery and stupidity is how you choose to perceive it!

On a more positive note, I worked Italy, Spain, Wales and Poland on 20 meters yesterday afternoon with my new TenTec Jupiter transceiver. I believe this little ridge is a very good radio location...

de W8CCW John
On Wed, 26 Apr 2006 11:50:05 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>There is much correspondence on these walls about protecting equipment
>and property from lightning strikes. But there is never anything said
>about protecting people. Where are your concerns?
>
>In this country, UK, I can't remember the last time I read in the
>newspaper about anybody being killed by lightning. It is extremely
>rare.
>

>It doesn't appear to give US citizens much cause for concern. Are you
>all very brave? Or have you just got used to it.
>
>Just curious. What is the annual death rate due to lightning, per head
>of population, in states like Florida? Do you keep statistics?
>
>How does it compare with the death rate from being chewed to death by
>alligators in Florida swamps? Or dying from rattlesnake bites in
>Arizona? Does lightning make it to the newspapers?
>----
>Reg.
>
John Ferrell W8CCW

1524. Re: Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 14:17:18 UTC
From: Buck <not@this.time>
Message-ID: <ouvu42tvt2tgvcr3qc3v3avusrqeio3gad@4ax.com>
Source record: 60466

On Wed, 26 Apr 2006 11:50:05 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>There is much correspondence on these walls about protecting equipment
>and property from lightning strikes. But there is never anything said
>about protecting people. Where are your concerns?
>
>In this country, UK, I can't remember the last time I read in the
>newspaper about anybody being killed by lightning. It is extremely
>rare.
>
>It doesn't appear to give US citizens much cause for concern. Are you
>all very brave? Or have you just got used to it.
>
>Just curious. What is the annual death rate due to lightning, per head
>of population, in states like Florida? Do you keep statistics?
>
>How does it compare with the death rate from being chewed to death by
>alligators in Florida swamps? Or dying from rattlesnake bites in
>Arizona? Does lightning make it to the newspapers?
>----
>Reg.
>

Lightening deaths are part of the Darwin Award system. A group of
lawyers were fishing in a row-boat when a storm came up. One raised
his fishing pole and shouted, "Alright, God, take your best shot!"
They buried him shortly afterwards.

Lightening dangers are taught in schools from pre-school through high
school. Most people know that when lightening is in the area, to get
to cover, therefore, there is a lack of fatalities. However, there
are some caught unaware as lightening can precede a storm by as much
as 10-15 miles and some people don't realize that and stay vulnerable.

Lightening deaths are reported, but I don't think they will ever make
the national news unless it is a celebrity or at some really
prestigious event.

--
73 for now
Buck
N4PGW

1525. Re: Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 14:56:30 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <cZmdneHKt9WAF9LZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 60467

A often faulty memory seems to recall that lightning deaths in the USA
are generally around 75/year and several hundred injured. Mostly, these
occur at outdoor events such as picnics, barbecues, ball games, etc.

As is stated in another response: if you can't control it we tend to
ignore it.

/S/ DD, W1MCE

Reg Edwards wrote:

> There is much correspondence on these walls about protecting equipment
> and property from lightning strikes. But there is never anything said
> about protecting people. Where are your concerns?
>
> In this country, UK, I can't remember the last time I read in the
> newspaper about anybody being killed by lightning. It is extremely
> rare.
>
> It doesn't appear to give US citizens much cause for concern. Are you
> all very brave? Or have you just got used to it.
>
> Just curious. What is the annual death rate due to lightning, per head
> of population, in states like Florida? Do you keep statistics?
>
> How does it compare with the death rate from being chewed to death by
> alligators in Florida swamps? Or dying from rattlesnake bites in
> Arizona? Does lightning make it to the newspapers?
> ----
> Reg.
>
>

1526. Re: Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 15:01:51 UTC
From: "Peter O. Brackett" <none@no-such-domain.nul>
Message-ID: <zXL3g.9130$Es3.6769@newsread3.news.atl.earthlink.net>
Source record: 60468

Reg:

Every year there are a few reports of people struck by and often killed by lightning.

Indeed Florida is the leading place in the whole world for lightning activity and lightning deaths.

In Florida we have really vicious thunderstorm activity throughout the summer months. These storms come up fast, thunderheads rising upwards of 50,000 feet, with black wall clouds decending to ground level and the air thick with static and rain so hard that you cannot see more than 25 feet. Impressive stuff!

I have never personally met anyone who was struck by lightning.

One of my own [arbitrary length] dipoles was simply vaporized by a strike when I was not at home... the ladder line that fed it's center was also missing and there was a two foot diameter hole about a foot deep in the lawn where I had left the end of the line laying on the ground. That's where I place the ladder line when not in the shack. When I returned home after that storm, I found the rope ends at the two supports simply swinging in the wind with the insulators on the ends still intact. During the annual ARRL Field Day event, held at the peak of Florida lightning season, in June of each year, I/we quickly disconnect feedlines and throw them well away from the transmitter sites during thunderstorm approach, on several occasions during those Field Days, and from a distance and under appropriate shelter, I have personally watched arcs jumping across the air gap between the conductors of the end of ladder line lying on the ground during the passage of thunderclouds. But I have never witnessed an actual strike on one of those antennas.

I don't have statistics at hand, but I can relay that most of the news reports of lightning deaths that I recall here in Florida were of the deaths of unfortunate golfers who failed to take shelter during a thunderstorm approach. I do recall a news report of someone killed by lightning on a Florida beach within the past couple of years.

It would be my guess that most who are struck by lightning in Florida are visitors... As far as I can tell, most folks who live in Florida year round are very well aware of the dangers of lightning and take appropriate cautions.

--
Pete k1po
Indialantic By-the-Sea, FL

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:S_2dnbu5se51zdLZRVnyug@bt.com...
> There is much correspondence on these walls about protecting equipment
> and property from lightning strikes. But there is never anything said
> about protecting people. Where are your concerns?
>
> In this country, UK, I can't remember the last time I read in the
> newspaper about anybody being killed by lightning. It is extremely
> rare.
>
> It doesn't appear to give US citizens much cause for concern. Are you
> all very brave? Or have you just got used to it.
>
> Just curious. What is the annual death rate due to lightning, per head
> of population, in states like Florida? Do you keep statistics?
>
> How does it compare with the death rate from being chewed to death by
> alligators in Florida swamps? Or dying from rattlesnake bites in
> Arizona? Does lightning make it to the newspapers?
> ----
> Reg.
>
>

1527. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 15:14:24 UTC
From: jimbo <jimbo62@spamex.com>
Message-ID: <PPKdnTbavO7UE9LZnZ2dnUVZ_tmdnZ2d@comcast.com>
Source record: 60469

jimbo wrote:
> I have been trying to get an acceptable 2 meter antenna installed in my
> attic. A J-Pole seemed to me the best solution for my attic space. You
> may recall an earlier post where I discussed SWR on one of the ladder
> line J-Poles I was working with. Well, I gave up on ladder line and
> constructed a J-Pole from 1/2 inch copper tubing. I tuned it in my
> basement work shop to give the best SWR and then took it up to the
> attic. The following table shows the results.
>
> Basement Attic
>
> 144 1.90 1.80
> 145 1.65 2.00
> 146 1.50 2.10
> 147 1.60 2.25
> 147.995 1.90 2.25
>
> Actually, probably not that bad for a first attempt at copper tubing.
> But, I didn't like the fact that SWR was above 2.0 in my attic and that
> things changed between my basement shop and the attic. I guess this
> design is influenced by objects close by.
>
> So, somewhere in my surfing I came across the Arrow J-Pole. This is an
> end fed, open stub commercial design that promises less that 1.5 SWR
> across the band. Here are the results of my experiment with this antenna.
>
> Basement Attic
>
> 144 1.10 1.22
> 145 1.18 1.10
> 146 1.25 1.20
> 147 1.30 1.32
> 147.995 1.40 1.42
>
> Not 1.0 SWR but certainly met the promise. And the best thing about this
> design is that near by objects don't seem to have an impact on
> performance. If I built one of these designs and tuned it in my basement
> shop, it should give the same results in the attic.
>
> Anyway, just my subjective observations.
>
> jimbo - AJ7IM

I guess my conclusion is that the conventional J-Pole design seems to be more susceptible to near by objects than the much less common end fed, open stub, J-Pole. My conventional copper J-pole changed much more than the end fed Arrow J-Pole when moved from the basement to the attic. And I have noticed on other occasions that even very small changes in location and/or orientation had a large effect on SWR.

The ARRL Antenna Book has a small section on J-Pole antennas. They show both designs, conventional shorted stub and the uncommon end fed, open stub designs. They say that the shorted stub design should have a 4/1 balun at the feed point because a direct coax connection results in extreme sensitivity to near by objects. And they also say the end fed, open stub design doesn't require a balun and is much less sensitive to near by objects, but is harder to tune. (I don't understand that point, there is one less parameter to fiddle with.)

All of this leads me to wonder why almost all J-Pole designs one sees are of the shorted stub version and almost none use a balun. I suspect ease of construction and low cost. My "store bought" Arrow end fed, open stub, J-Pole seems to verify the ARRL Antenna Book's conclusions about sensitivity to near by objects. However, do-it-yourself construction does appear to be much more difficult. I may give it a try, just out of curiosity.

A final note. My attic is a very difficult place to work. There is no way I can install an antenna and then make numerous adjustments to get it tuned to the space. I must be able to do any required tuning in my basement shop or maybe outside on my deck and then take it to the attic for installation. So for my application, I want something that is not sensitive to near by objects. The end fed, open stub J-Pole seems to fit that requirement.

73s jimbo

1528. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 15:58:19 UTC
From: Dan Richardson <k6mhe>
Message-ID: <7r5v42dovus0mcsdef1kkgoh69beg6lrnf@4ax.com>
Source record: 60470

On Wed, 26 Apr 2006 09:14:24 -0600, jimbo <jimbo62@spamex.com> wrote:
[snip]
>The ARRL Antenna Book has a small section on J-Pole antennas. They
>show both designs, conventional shorted stub and the uncommon end fed,
>open stub designs. They say that the shorted stub design should have a
>4/1 balun at the feed point because a direct coax connection results
>in extreme sensitivity to near by objects. And they also say the end
>fed, open stub design doesn't require a balun and is much less
>sensitive to near by objects, but is harder to tune. (I don't
>understand that point, there is one less parameter to fiddle with.)
>
>All of this leads me to wonder why almost all J-Pole designs one sees
>are of the shorted stub version and almost none use a balun. I suspect
>ease of construction and low cost. My "store bought" Arrow end fed,
>open stub, J-Pole seems to verify the ARRL Antenna Book's conclusions
>about sensitivity to near by objects. However, do-it-yourself
>construction does appear to be much more difficult. I may give it a
>try, just out of curiosity.

[snip]

A j-pole (open or closed stub) will perform better with a common mode
choke at the feed point. Even better, use two chokes. One at the feed
point and the other 1/4-wave down the line.

This will reduce the higher angle radiation that results from the feed
line being part of the antenna.

Using a choke on ANY antenna fed with coax is just good engineering
practice. It can't hurt - only help. A few turns of coax costs very
little.

73,
Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

1529. Re: Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 16:17:32 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <w2N3g.20544$tN3.13487@newssvr27.news.prodigy.net>
Source record: 60471

Peter O. Brackett wrote:
> Reg:
>
> Every year there are a few reports of people struck by and often killed by
> lightning.
>
> Indeed Florida is the leading place in the whole world for lightning
> activity and lightning deaths.
>
> In Florida we have really vicious thunderstorm activity throughout the
> summer months. These storms come up fast, thunderheads rising upwards of
> 50,000 feet, with black wall clouds decending to ground level and the air
> thick with static and rain so hard that you cannot see more than 25 feet.
> Impressive stuff!
>
> I have never personally met anyone who was struck by lightning.
>
> One of my own [arbitrary length] dipoles was simply vaporized by a strike
> when I was not at home... the ladder line that fed it's center was also
> missing and there was a two foot diameter hole about a foot deep in the lawn
> where I had left the end of the line laying on the ground. That's where I
> place the ladder line when not in the shack. When I returned home after
> that storm, I found the rope ends at the two supports simply swinging in the
> wind with the insulators on the ends still intact. During the annual ARRL
> Field Day event, held at the peak of Florida lightning season, in June of
> each year, I/we quickly disconnect feedlines and throw them well away from
> the transmitter sites during thunderstorm approach, on several occasions
> during those Field Days, and from a distance and under appropriate shelter,
> I have personally watched arcs jumping across the air gap between the
> conductors of the end of ladder line lying on the ground during the passage
> of thunderclouds. But I have never witnessed an actual strike on one of
> those antennas.
>
> I don't have statistics at hand, but I can relay that most of the news
> reports of lightning deaths that I recall here in Florida were of the deaths
> of unfortunate golfers who failed to take shelter during a thunderstorm
> approach. I do recall a news report of someone killed by lightning on a
> Florida beach within the past couple of years.
>
> It would be my guess that most who are struck by lightning in Florida are
> visitors... As far as I can tell, most folks who live in Florida year round
> are very well aware of the dangers of lightning and take appropriate
> cautions.
>

> --
> Pete k1po
> Indialantic By-the-Sea, FL
>
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:S_2dnbu5se51zdLZRVnyug@bt.com...
>
>>There is much correspondence on these walls about protecting equipment
>>and property from lightning strikes. But there is never anything said
>>about protecting people. Where are your concerns?
>>
>>In this country, UK, I can't remember the last time I read in the
>>newspaper about anybody being killed by lightning. It is extremely
>>rare.
>>
>>It doesn't appear to give US citizens much cause for concern. Are you
>>all very brave? Or have you just got used to it.
>>
>>Just curious. What is the annual death rate due to lightning, per head
>>of population, in states like Florida? Do you keep statistics?
>>
>>How does it compare with the death rate from being chewed to death by
>>alligators in Florida swamps? Or dying from rattlesnake bites in
>>Arizona? Does lightning make it to the newspapers?
>>----
>>Reg.
>>
>>
>
>
>

But are the thunderclouds lumped elements or transmission lines,
peter?
73,
Tom Donaly, KA6RUH

1530. Re: Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 16:24:23 UTC
From: "Peter O. Brackett" <none@no-such-domain.nul>
Message-ID: <X8N3g.12974$i41.393@newsread1.news.atl.earthlink.net>
Source record: 60472

Hi Tom:

Hmmm... Thunderclouds, lumped or distributed? It all depends upon the application requirments... if the occurence is infrequent one may make a quasi-static assumption and invoke DC conditions.

Then we can make an approximation and treat the lightning stroke just as a DC conductor.

Now... Just what is the steady state DC value for a lightning stroke?

Ignoring the parasitic capacitance between strokes... we can approximate it as a long vertical wire, without loading...

Then...

Well you get the picture [grin].

Incidently we are in a very unusual dry spell here on the barrier island off Florida's East coast... we have only had about 1/8 inch of rain in the past three months, and the whole County is on fire!

Regards,

--
Pete k1po
Indialantic By-the-Sea, FL

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:w2N3g.20544$tN3.13487@newssvr27.news.prodigy.net...
> Peter O. Brackett wrote:
>> Reg:
>>
>> Every year there are a few reports of people struck by and often killed
>> by lightning.
>>
>> Indeed Florida is the leading place in the whole world for lightning
>> activity and lightning deaths.
>>
>> In Florida we have really vicious thunderstorm activity throughout the
>> summer months. These storms come up fast, thunderheads rising upwards of
>> 50,000 feet, with black wall clouds decending to ground level and the air
>> thick with static and rain so hard that you cannot see more than 25 feet.
>> Impressive stuff!
>>
>> I have never personally met anyone who was struck by lightning.
>>

>> One of my own [arbitrary length] dipoles was simply vaporized by a strike
>> when I was not at home... the ladder line that fed it's center was also
>> missing and there was a two foot diameter hole about a foot deep in the
>> lawn where I had left the end of the line laying on the ground. That's
>> where I place the ladder line when not in the shack. When I returned
>> home after that storm, I found the rope ends at the two supports simply
>> swinging in the wind with the insulators on the ends still intact.
>> During the annual ARRL Field Day event, held at the peak of Florida
>> lightning season, in June of each year, I/we quickly disconnect feedlines
>> and throw them well away from the transmitter sites during thunderstorm
>> approach, on several occasions during those Field Days, and from a
>> distance and under appropriate shelter, I have personally watched arcs
>> jumping across the air gap between the conductors of the end of ladder
>> line lying on the ground during the passage of thunderclouds. But I have
>> never witnessed an actual strike on one of those antennas.
>>
>> I don't have statistics at hand, but I can relay that most of the news
>> reports of lightning deaths that I recall here in Florida were of the
>> deaths of unfortunate golfers who failed to take shelter during a
>> thunderstorm approach. I do recall a news report of someone killed by
>> lightning on a Florida beach within the past couple of years.
>>
>> It would be my guess that most who are struck by lightning in Florida are
>> visitors... As far as I can tell, most folks who live in Florida year
>> round are very well aware of the dangers of lightning and take
>> appropriate cautions.
>>
>> --
>> Pete k1po
>> Indialantic By-the-Sea, FL
>>
>>
>> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
>> news:S_2dnbu5se51zdLZRVnyug@bt.com...
>>
>>>There is much correspondence on these walls about protecting equipment
>>>and property from lightning strikes. But there is never anything said
>>>about protecting people. Where are your concerns?
>>>
>>>In this country, UK, I can't remember the last time I read in the
>>>newspaper about anybody being killed by lightning. It is extremely
>>>rare.
>>>
>>>It doesn't appear to give US citizens much cause for concern. Are you
>>>all very brave? Or have you just got used to it.
>>>
>>>Just curious. What is the annual death rate due to lightning, per head
>>>of population, in states like Florida? Do you keep statistics?
>>>
>>>How does it compare with the death rate from being chewed to death by

>>>alligators in Florida swamps? Or dying from rattlesnake bites in
>>>Arizona? Does lightning make it to the newspapers?
>>>----
>>>Reg.
>>>
>>>
>>
>>
>>
>
> But are the thunderclouds lumped elements or transmission lines,
> peter?
> 73,
> Tom Donaly, KA6RUH

1531. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 16:43:18 UTC
From: richardharrison@webtv.net
Message-ID: <6547-444FA326-76@storefull-3255.bay.webtv.net>
Source record: 60473

Roy, W7EL wrote:
"What is the velocity factor, and how did you calculate it?"

Given:
length = 12 inches
diamwter = 6 in.
L = 38.6 microhenry

I used formula (37) from Terman`s Handbook to calculate 25 turns in the coil. 471 inches of wire are needed in the coil.

The velocity of the EM wave traveling around the turns of the coil is almost equal to the velocity in a straight wire. But, the time required to travel 471 inches is 40 times the time required to travel 12 inches. The velocity factor is the reciprocal of 40 or 0.025.

Best regards, Richard Harrison, KB5WZI

1532. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 17:07:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sNN3g.5886$Lm5.2159@newssvr12.news.prodigy.com>
Source record: 60474

Tom Ring wrote:

> Cecil Moore wrote:
>> Let's say we have a 1/2WL dipole in free space driven by a
>> self-contained source at the center. If we float a florescent
>> light bulb around the ends of the dipole, are you saying the
>> electric fields won't fire the bulb like it does on earth?
>
> Stop acting like an idiot Cecil.

It was a technical question. I was just wondering what keeps
the wire from transferring energy when it is located in free
space.
--
73, Cecil http://www.qsl.net/w5dxp

1533. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 17:34:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qaO3g.5894$Lm5.1929@newssvr12.news.prodigy.com>
Source record: 60475

Roy Lewallen wrote:

> That's all very nice. Let's see if it's useful for anything.
>
> A while back, Cecil posted a model of a base loaded vertical antenna. It
> has an inductor which is vertically oriented. The bottom of the inductor
> is 1 foot from the ground and the inductor is 1 foot long and six inches
> in diameter. Inductance is 38.5 uH and it's self resonant at 13.48 MHz.
> (Moving it very far from ground changes the resonant frequency to 13.52
> MHz.)
>
> What's it's velocity factor, and how did you calculate it?

13.48 MHz is not exactly the self-resonant frequency of the
coil. At 13.48 MHz, the one foot bottom section is 0.0137
wavelengths long, i.e. 4.9 degrees. So the coil occupies
85.1 degrees, i.e. 0.236 wavelength. The coil length is
coincidentally also one foot so the velocity factor is
4.9/85.1 = 0.058.
--
73, Cecil http://www.qsl.net/w5dxp

1534. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 17:42:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <siO3g.5895$Lm5.2173@newssvr12.news.prodigy.com>
Source record: 60276

Richard Harrison wrote:

> Roy, W7EL wrote:
> "What is the velocity factor, and how did you calculate it?"
>
> Given:
> length = 12 inches
> diamwter = 6 in.
> L = 38.6 microhenry
>
> I used formula (37) from Terman`s Handbook to calculate 25 turns in the
> coil. 471 inches of wire are needed in the coil.
>
> The velocity of the EM wave traveling around the turns of the coil is
> almost equal to the velocity in a straight wire. But, the time required
> to travel 471 inches is 40 times the time required to travel 12 inches.
> The velocity factor is the reciprocal of 40 or 0.025.

13.48 MHz is not exactly the self-resonant frequency of the
coil. At 13.48 MHz, the one foot bottom section is 0.0137
wavelengths long, i.e. 4.9 degrees. So the coil occupies
~85.1 degrees at self-resonance. The coil length is coincidentally
also one foot so the velocity factor is 4.9/85.1 = 0.058.

I don't have the Terman Handbook. Does he take adjacent coil
coupling into account in that formula? If not, that's the
difference in the two results.

In either case, the velocity factor is not anywhere near 1.0
as the lumped circuit model would have us believe.

Does anyone have a formula for what percentage of current is
induced in coils farther and farther away from the primary
coil? I haven't found such a formula in my references but it's
got to exist.
--
73, Cecil http://www.qsl.net/w5dxp

1535. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 17:54:26 UTC
From: jimbo <jimbo62@spamex.com>
Message-ID: <NuqdnRJI9fZWLtLZnZ2dnUVZ_umdnZ2d@comcast.com>
Source record: 60277

Allisonnospam@nouce.bellatlantic.net wrote:

> You can effect the match with either open or shorted stubs when the
> dimensions are correct. Performance is not significantly different.
>
> See Mr Cebiks site. He has done a lot of work that is more fact than
> lore.
>
>
>>A final note. My attic is a very difficult place to work. There is no
>>way I can install an antenna and then make numerous adjustments to get
>>it tuned to the space. I must be able to do any required tuning in my
>>basement shop or maybe outside on my deck and then take it to the
>>attic for installation. So for my application, I want something that
>>is not sensitive to near by objects. The end fed, open stub J-Pole
>>seems to fit that requirement.
>
>
> An attic is a problem for many antennas and tuning them is part of it.
>
> One trick I've tried to help others was tune it inside a room and then
> note how the SWR changes in location and adjust accordingly.
> Tuning in this case was adjusting the length of the longer element
> (capped with 1/.4" brass bolt and nut) and stub length without
> altering the initial best SWR tap. Usually shortening the longer
> element was the needed adjustment.
>
>
> Allison

Yes, I read Cebik's article on J-Poles several times. I don't doubt that both designs can be tuned to the same SWR and produce the same performance. And I tried the brass bolt and nut trick and a coil of coax at the feed point. But in my basement shop, the shorted stub copper J-Pole was very, very sensitive to almost any change of orientation or location. And then everything changed when I installed it in the attic. But the Arrow open stub J-Pole seemed to produce the same SWR regardless of orientation or location in my basement or in the attic.

Anyway, thanks for the insight, jimbo

1536. Re: Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 18:22:52 UTC
From: dplatt@radagast.org
Message-ID: <124vejss2fc1n42@corp.supernews.com>
Source record: 60278

In article <X8N3g.12974$i41.393@newsread1.news.atl.earthlink.net>,
Peter O. Brackett <none@no-such-domain.nul> wrote:

>> But are the thunderclouds lumped elements or transmission lines,
>> peter?

>Hmmm... Thunderclouds, lumped or distributed? It all depends upon the
>application requirments... if the occurence is infrequent one may make a
>quasi-static assumption and invoke DC conditions.

I suspect that they're more correctly modelled as resonant circuits...
specifically, as quartz-crystal oscillators.

I keep hearing pilots talk about "clouds full of rocks"...

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

1537. Re: Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 19:20:36 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <RKedndECZsaeVdLZRVn-pg@comcast.com>
Source record: 60279

Peter O. Brackett wrote:

> Hi Tom:
>
> Hmmm... Thunderclouds, lumped or distributed? It all depends upon the
> application requirments... if the occurence is infrequent one may make a
> quasi-static assumption and invoke DC conditions.
>
> Then we can make an approximation and treat the lightning stroke just as a
> DC conductor.

No!! A much better model is a capacitor arcing over. The current in the strike goes from zero to Imax [<100,000 amperes] in less than 1 microsecond. This is followed by a decaying current [approximate exponential decay] that reaches 'steady state' in several 10s of milliseconds. This is followed by an secondary exponential decay of up to 500 milliseconds at somewhere around 500 to 600 amperes [this is basically the sustaining or continuing channel current.

The static we hear is caused by the displacement current in the initial discharge. The bandwidth of the static is determined by the rise and fall times of the initial discharge characteristics.

>
> Now... Just what is the steady state DC value for a lightning stroke?

90% of all lightning strikes in the USA have a "continuing channel current" [long term channel current] of less than 600 amperes. It continues for less than 1 second.

>
> Ignoring the parasitic capacitance between strokes... we can approximate it
> as a long vertical wire, without loading...
>
>Balanced SNIPPED

1538. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 20:05:48 UTC
From: richardharrison@webtv.net
Message-ID: <8655-444FD29C-109@storefull-3253.bay.webtv.net>
Source record: 60280

Cecil, W5DXP wrote:
"I don`t have the Terman Handbook."

Formula (37) on page 55 of the 1943 "Radio Engineers` Handbook is:

Lo = (r sq) (n sq) / 9(r) + 10(l)
Lo = approximate low-frequency inductance of a single-layer solenoid in microhenries where r is the radius and l is the length of the coil in inches.

Terman attributes the formula to H.A. Wheeler, "Simple Inductance Formulas for Radio Coils", Proc. I.R.E., Vol 16, P1398, October 1928.

Best regards, Richard Harrison, KB5WZI

1539. Re: Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-26 21:12:31 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <mgnv42d315a48ihnkt9soqdapl39q0b7c4@4ax.com>
Source record: 60281

On Wed, 26 Apr 2006 11:50:05 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>There is much correspondence on these walls about protecting equipment
>and property from lightning strikes. But there is never anything said
>about protecting people. Where are your concerns?
...

What on earth made you think that hams are generally safety conscious?

From my experience, I suggest that most place little value on safety
(fire safety, electrical safety, safe working at heights, safe
vehicular installations, protecting immediate family and other would
be rescuers from risk in the event of an accident).

I am not saying that no one does it, just very few.

A walk around most amateur stations reveals uncontrolled hazards.

And the statistics say that the probability of adverse outcome is low.

So in an unconscious risk managed approach, it seems most people
assess that "it won't happen to me".

Owen

PS: there are standards or codes that relate to lightning and
electrical hazards in most modern jurisdictions, but amateurs seem
rarely familiar with them, and to the extent that there is any
compliance, it is entirely accidental and unintended.
--

1540. Re: Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 02:33:16 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <M3W3g.685$b63.381@clgrps13>
Source record: 60282

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:S_2dnbu5se51zdLZRVnyug@bt.com...
> There is much correspondence on these walls about protecting equipment
> and property from lightning strikes. But there is never anything said
> about protecting people. Where are your concerns?
>
> In this country, UK, I can't remember the last time I read in the
> newspaper about anybody being killed by lightning. It is extremely
> rare.
>
> It doesn't appear to give US citizens much cause for concern. Are you
> all very brave? Or have you just got used to it.
>
> Just curious. What is the annual death rate due to lightning, per head
> of population, in states like Florida? Do you keep statistics?
>
> How does it compare with the death rate from being chewed to death by
> alligators in Florida swamps? Or dying from rattlesnake bites in
> Arizona? Does lightning make it to the newspapers?
> ----
> Reg.

http://www.torro.org.uk/TORRO/research/lightning.php

1541. Re: Lightning protection

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 03:02:51 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4450345b$0$1014$39cecf19@news.twtelecom.net>
Source record: 60283

Frank wrote:

> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:S_2dnbu5se51zdLZRVnyug@bt.com...
>
>>There is much correspondence on these walls about protecting equipment
>>and property from lightning strikes. But there is never anything said
>>about protecting people. Where are your concerns?
>>
>>In this country, UK, I can't remember the last time I read in the
>>newspaper about anybody being killed by lightning. It is extremely
>>rare.
>>
>>It doesn't appear to give US citizens much cause for concern. Are you
>>all very brave? Or have you just got used to it.
>>
>>Just curious. What is the annual death rate due to lightning, per head
>>of population, in states like Florida? Do you keep statistics?
>>
>>How does it compare with the death rate from being chewed to death by
>>alligators in Florida swamps? Or dying from rattlesnake bites in
>>Arizona? Does lightning make it to the newspapers?
>>----
>>Reg.
>
>
> http://www.torro.org.uk/TORRO/research/lightning.php
>
>

Hmmm. Looks like ignorance is bliss, Reg. I would have human strikes
and kills to be much lower in the UK than it is. Unless I totally
misunderstand the weather patterns there vs. here, you couldn't possibly
get the number of severe thunderstorms that we do in the US. So maybe
we are more aware and better prepared.

Although I could be quite mistaken in my beliefs. But I doubt it.

tom
K0TAR

1542. Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 06:54:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <csKdnWWJrarV9s3ZRVnysg@bt.com>
Source record: 60284

With multi-hops through the ionosphere there will be reflections from the ground between adjacent hops. If there are N hops there will be N-1 ground reflections.

At each reflection a signal loss is incurred. But the ground is a variable quantity.

What rule of thumb relating to reflection loss is used by radio professionals when calculating path loss?

At the back of my mind I have a figure of 5 dB per reflection. Is this in the right ball park?

Thank you.

Reg.

1543. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 07:31:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <BPCdncXk3bJZ7s3ZRVnyvQ@bt.com>
Source record: 60285

"Reg Edwards" wrote
> With multi-hops through the ionosphere there will be reflections
from
> the ground between adjacent hops. If there are N hops there will be
> N-1 ground reflections.
>
> At each reflection a signal loss is incurred. But the ground is a
> variable quantity.
>
> What rule of thumb relating to reflection loss is used by radio
> professionals when calculating path loss?
>
> At the back of my mind I have a figure of 5 dB per reflection. Is
this
> in the right ball park?
>
> Thank you.
> ----
> Reg.
>
==
It has just occurred to me that the loss due to ground reflections may
be related to the angle at which waves strike the earth. It is the
same angle as the transmit elevation angle and can be quite small.

Reg.

1544. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 07:54:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1250u68k0q1n13f@corp.supernews.com>
Source record: 60286

Reg Edwards wrote:

> ==
> It has just occurred to me that the loss due to ground reflections may
> be related to the angle at which waves strike the earth. It is the
> same angle as the transmit elevation angle and can be quite small.
> ----
> Reg.

The amplitude and phase of a field after ground reflection depends on the polarization, and is quite different for horizontal and vertical. It of course also depends on ground conductivity and permittivity, frequency, and angle. The equations are simple, and can be found in Kraus and other references. Those equations are used by NEC for determination of the far field pattern.

Roy Lewallen, W7EL

1545. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 08:44:10 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <7JSdnf1lbv9TGc3ZRVny2Q@bt.com>
Source record: 60287

```
> The amplitude and phase of a field after ground reflection depends
on
> the polarization, and is quite different for horizontal and
vertical. It
> of course also depends on ground conductivity and permittivity,
> frequency, and angle. The equations are simple, and can be found in
> Kraus and other references. Those equations are used by NEC for
> determination of the far field pattern.
>
> Roy Lewallen, W7EL

========================================

Yes! But what's the ball park, rule-of-thumb value in dB ?
----
Reg
```

1546. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 10:01:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12515kccr5eo71f@corp.supernews.com>
Source record: 60288

Reg Edwards wrote:
>> The amplitude and phase of a field after ground reflection depends
> on
>> the polarization, and is quite different for horizontal and
> vertical. It
>> of course also depends on ground conductivity and permittivity,
>> frequency, and angle. The equations are simple, and can be found in
>> Kraus and other references. Those equations are used by NEC for
>> determination of the far field pattern.
>>
>> Roy Lewallen, W7EL
>
> ==
>
> Yes! But what's the ball park, rule-of-thumb value in dB ?
> ----
> Reg

I dunno. What's the ball park, rule-of-thumb value of a resistor in ohms?

Roy Lewallen, W7EL

1547. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 12:22:17 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <aI24g.585$xW4.422@fe12.lga>
Source record: 60289

Uh, uh,
Wait until Richard Clark sees this and descends on you!!! :-)

Reg,
you can't just look at HF waves propagation through simple "reflective" glasses. There is considerable amount of propagating going on by refraction, ducting, polarization gets all tumbled around and ground conditions vary so much that even those orderly, same current in a loading coil believers get drowned. There are some propagation prediction programs that will do some predicting +- 59%, but that's about it. Otherwise as W7EL says, if you are looking at the antenna pattern forming properties within few wavelengths you need to consider polarization and ground conditions within the zone, but once you get beyond "first hop" you are on the mercy of propagation Gods.
You can look at my oooold article
http://members.aol.com/ve3bmv/bmvpropagation.htm
which at the time was judged "ridiculous" and "nothing new" at the same time. Now a days, especially low band crowds are coming around and admitting that there is perhaps more refracting/ducting than reflecting going on and trying to figure out when, why, how.
W8JI fought another losing battle claiming that there is no high angle propagation on extreme DX signals on 160/80, or skewed path. Now he is "guru" on the subject.
Soooo, depends.... what you are after? For "regular" conditions you can apply some ballparks, but for extreme DXing and weak signal comms, there is whole different world outside of formulas.

Yuri K3BU, VE3BMV

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:7JSdnf1lbv9TGc3ZRVny2Q@bt.com...
>> The amplitude and phase of a field after ground reflection depends
> on
>> the polarization, and is quite different for horizontal and
> vertical. It
>> of course also depends on ground conductivity and permittivity,
>> frequency, and angle. The equations are simple, and can be found in
>> Kraus and other references. Those equations are used by NEC for
>> determination of the far field pattern.
>>
>> Roy Lewallen, W7EL
>
> ==
>
> Yes! But what's the ball park, rule-of-thumb value in dB ?
> ----

> Reg
>
>

1548. "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 13:30:29 UTC
From: jawod <jawod@fuse.net>
Message-ID: <69488$4450c795$453d9423$12820@FUSE.NET>
Source record: 60290

I was listening to 40M the other night and a reasonably clear SSB signal
came from a guy in Pennsylvania using 100 W to a rain gutter.

It was apparently raining at the time in PA.

All the mathematical modeling and tweaking discussed in this group ...
I thought the successful use of a rain gutter deserved some praise here.

John
AB8WH

1549. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 13:58:49 UTC
From: jgboyles@aol.com
Message-ID: <1146146329.525927.110080@j33g2000cwa.googlegroups.com>
Source record: 60291

jawod wrote:
> I was listening to 40M the other night and a reasonably clear SSB signal
> came from a guy in Pennsylvania using 100 W to a rain gutter.
>
> It was apparently raining at the time in PA.
>
> All the mathematical modeling and tweaking discussed in this group ...
> I thought the successful use of a rain gutter deserved some praise here.
>
> John
> AB8WH

It does deserve some praise, however this guy was not the first. At some point in my 45 years I have made contacts using a rain gutter, the metal tube in the center of my brick chimney, the metal fire escape outside my dorm room and on and on. If it was metal, and I needed an antenna, I tried it. I don't remember bed springs or a wet noodle, but that may be next.
Gary N4AST

1550. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 14:30:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <gPKdneulDKW6S83ZRVnytg@bt.com>
Source record: 60292

Roy wrote -

> I dunno. What's the ball park, rule-of-thumb value of a resistor in
ohms?
>
==========

Lord Kelvin was correct.

1551. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 16:02:32 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <sW54g.3896$fH.3768@edtnps82>
Source record: 60293

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:csKdnWWJrarV9s3ZRVnysg@bt.com...
> With multi-hops through the ionosphere there will be reflections from
> the ground between adjacent hops. If there are N hops there will be
> N-1 ground reflections.
>
> At each reflection a signal loss is incurred. But the ground is a
> variable quantity.
>
> What rule of thumb relating to reflection loss is used by radio
> professionals when calculating path loss?
>
> At the back of my mind I have a figure of 5 dB per reflection. Is this
> in the right ball park?
>
> Thank you.
> ----
> Reg.

Reflection loss can vary from zero to infinity; depending on the material
and angle of incidence.
For example; take the oblique incidence of a horizontally polarized EM wave
on an air/rocky
ground interface of:: conductivity 2 mS/m, and relative permittivity 15.
The reflection loss
at zero degrees is 4.4 dB, increasing to 21.4 dB at the pseudo Brewster
angle of 76 degrees, and
0 dB at 90 degrees. Ref. Advanced Engineering Electromagnetics, C. A.
Balanis, pp 206 - 214.
I have copies of the Mathcad calculations if anybody is interested.

Frank

1552. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 16:49:22 UTC
From: richardharrison@webtv.net
Message-ID: <19197-4450F612-273@storefull-3257.bay.webtv.net>
Source record: 60294

Reg, G4FGQ wrote:
"At the back of my mind I have a figure of 5 dB per reflection. Is this the right ball park?"

It could be right for some reflections.

E.A. Laport was Chief Engineer of RCA International when he wrote "Radio Antenna Engineering". On page 236 Fig. 3.17 shows the effect of ground conductivity on maximum field strength from a horizontal dipole antenna versus its height in vavelengths.

Optimum height would be about 0,50 wavelength to most concentrate energy at a certain vertical angle, 30-degrees according to the RAF Signal Manual quoted by Laport. 30-degrees might hop 1000 kilometers.

At the antenna earth reflection point, frequencies between 2 and 16 MHz are reduced to 95% of their prereflection field strengths by ordinary soil from a dipole at 1/2-wavelength height. A reduction to 70.7% of prereflection strength would represent a 3 dB power loss. So no harm done yet by the reflection from an antenna over good soil. Lower antenna height and poorer soil would attenuate more.

The angle at which rhe signal strikes the earth in subsequent reflections should be the same as the first reflection from the antenna. Conductivity and dielectric constant at subsequent earth reflection points are what they are.

Shortwave broadcasters use vertically stacked horizontal elements to concentrate the vertical beam to avoid multipath interference. They also prefer targets reached on the first reflection from the ionosphere..

Best regards, Richard Harrison, KB5WZI

1553. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 17:05:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9tr152ph6d56om1mb1ffnrgh66a0vb86ru@4ax.com>
Source record: 60295

On Thu, 27 Apr 2006 08:22:17 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>Uh, uh,
>Wait until Richard Clark sees this and descends on you!!! :-)
>
Hi Yuri,

You mean he might stand a chance of obtaining data instead of griping:

>W8JI fought another losing battle

Reggie,

Rule of hand with 5 thumbs....

Land Loss
deg 10 20 30 40
band
80 3 4+ 5+ 6
40 3+ 5+ 6 7
30 3+ 6 7 8
20 3+ 6+ 7+ 8+
10 3 6+ 7+ 8+

Sea Loss
deg 10 20 30 40
band
80 .2 .14 .12 .1
40 .3 .18 .15 .13
30 .4 .2 .17 .15
20 .45 .27 .22 .18
10 .52 .38 .28 .27

Washington D.C. - London
Autumn Ionospheric 1.35MHz Loss
UT dB
00 0
02 0
04 0
06 0
08 0
10 2
12 1.5
14 1
16 1.5
18 1

20 .5
22 0

Earth/Ionospheric Waveguide Loss/10000kM
band
80 20+
40 8
30 3
20 2
10 2

73's
Richard Clark, KB7QHC

1554. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 17:17:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <oJCdnfRix8SyYM3ZRVnyig@bt.com>
Source record: 60296

> Reflection loss can vary from zero to infinity; depending on the
material
> and angle of incidence.
==========

Yes I know. That's obvious.

But what I would like to know is a typical or average value, or a
range of most likely expected values found in practice. Some
experienced person must know!

Needed to crudely ESTIMATE ionospheric multi-hop path loss.

Ground reflection losses are a small proportion of the total path loss
but not small enough to be neglected.

Just a whole number of decibels per reflection will do please.

Reg.

1555. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 17:51:28 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <Aw74g.7$Cv1.3@edtnps82>
Source record: 60297

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:oJCdnfRix8SyYM3ZRVnyig@bt.com...
>> Reflection loss can vary from zero to infinity; depending on the
> material
>> and angle of incidence.
> ==================================
>
> Yes I know. That's obvious.
>
> But what I would like to know is a typical or average value, or a
> range of most likely expected values found in practice. Some
> experienced person must know!
>
> Needed to crudely ESTIMATE ionospheric multi-hop path loss.
>
> Ground reflection losses are a small proportion of the total path loss
> but not small enough to be neglected.
>
> Just a whole number of decibels per reflection will do please.
> ---
> Reg.

Some approximate examples at 7 MHz with angles of incidence
from 0 - 40 degrees:

Sea Water 0.2 dB
Rocky Ground 5 dB
Average Gnd. 2 dB

Frank

1556. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 19:13:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12525ve803tkr07@corp.supernews.com>
Source record: 60298

jawod wrote:
> I was listening to 40M the other night and a reasonably clear SSB signal
> came from a guy in Pennsylvania using 100 W to a rain gutter.
>
> It was apparently raining at the time in PA.
>
> All the mathematical modeling and tweaking discussed in this group ...
> I thought the successful use of a rain gutter deserved some praise here.

Why? There's nothing unusual or exceptional about it.

I used one successfully on 80 meters for a number of years from an apartment in Denver. And when I was a kid my main 20 meter antenna was an approximately half wavelength of #28 enamled wire slammed in my window and running to a clothesline pole in the back yard. Insulator was a plastic curtain ring. Worked lots of stateside stations from Alaska with a homebrew 6L6 rig -- probably about 10 watts output.

I've worked JA on 40 meter CW with a base loaded CB whip from a VW squareback and about 8 watts, and Alaska from Denver (good signal report on SSB) with 50 watts using a dipole strung around a basement. I worked New Hebrides on 40 meters with a bent attic dipole 16 feet above ground, (#28 hookup wire stapled to the eave) and running 1.5 watts. Solid copy, and I got a QSL. A rain gutter probably would have done better.

Anyone who's been a ham for a few years probably has a handful of similar stories. What conclusions should we draw from them?

Roy Lewallen, W7EL

1557. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 19:26:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12526ndt5uges7a@corp.supernews.com>
Source record: 60299

Richard Harrison wrote:
> Roy, W7EL wrote:
> "What is the velocity factor, and how did you calculate it?"
>
> Given:
> length = 12 inches
> diamwter = 6 in.
> L = 38.6 microhenry
>
> I used formula (37) from Terman`s Handbook to calculate 25 turns in the
> coil. 471 inches of wire are needed in the coil.
>
> The velocity of the EM wave traveling around the turns of the coil is
> almost equal to the velocity in a straight wire. But, the time required
> to travel 471 inches is 40 times the time required to travel 12 inches.
> The velocity factor is the reciprocal of 40 or 0.025.

Not quite what I was expecting, but let's see if I understand what it means. This means that if we put a current into one end of the inductor, it'll take about 40 ns for current to reach the other end, right? So we should expect a phase delay in the current of 180 degrees at 6.15 MHz, or about 30 degrees at 1 MHz, from one end to the other?

Roy Lewallen, W7EL

1558. Lightning suppressor?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 19:54:13 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <ak725296eea9g6rjnerrqu9ta0to2suh8v@4ax.com>
Source record: 60300

I have a Cushcraft A3S Beam on a tower. It does not currently have a lightning arrestor on the feed line and is working well. The feed arrangement is center conductor to one side of the driven element, shield to the other side. There is a coil of coax at the top as a choke. This leaves the elements and the coax ungrounded. I have relied entirely on disconnecting the antenna for protection. when not in use. I would like to put an arrestor in the line but recommendations are sketchy even from those who sell them. I assume it would be most effective at the base of the tower on the ground rod. The drawing in the ARRL Antenna Handbook shows the arrestor on a common station ground.

Comments & opinions please...
de W8CCW John
John Ferrell W8CCW

1559. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 20:04:17 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <e2r844$jr5$1@news.netins.net>
Source record: 60301

Ionospherically reflected radio waves really do "want" to propagate, in spite of compromised antennas.

About 40 years ago while running an old Knight Kit T-150 on 80 m cw, I had a few 100 mw of spur on 5.525 mhz. I got a QSL card from the FCC telling me that the Canadian's were not too happy with me, and could I please fix things. Rotten antenna, low power output, and I still got a QSL card.

...hasan, N0AN

"Roy Lewallen" <w7el@eznec.com> wrote in message news:12525ve803tkr07@corp.supernews.com...

> Anyone who's been a ham for a few years probably has a handful of similar
> stories. What conclusions should we draw from them?
>
> Roy Lewallen, W7EL

1560. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 20:21:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <epqdnZ3yIK7MtczZRVnyjg@bt.com>
Source record: 60302

Thank you Richard, and the others, for digging out and presenting the information from which I can deduce a ball-park figure.

My original figure of 5 dB per hop for a ground reflection was slightly too high. It's nearer to 3.5 dB. I'm still thinking about it. But 4 dB is near enough. Not that it matters very much.

I deduced 5 dB from my experience of signal strengths received from such places as the antipodes and the Western US states. It's not surprising hopping across just the North Atlantic results in zero dB loss.

The excess path loss, over and above spreading loss, must be due to ground reflection losses. Just calculate backwards from received signal strength, path distance and the probable number of hops.

It's easy to do this with dedicated computer programs.

For very long distance paths assume that half the ground reflections are due to sea/ocean water and the other half is due to land masses and you won't go far wrong. Ground reflection losses at the transmitting and receiving sites can be ignored. Or such losses can be lumped together to constitute another complete hop.

I needed the information to include in a simple program which predicts (approximately) path loss for multi-hop propagation. Program users cannot be expected to know incidence angles, ground conductivity and permittivity, Brewster angles etc, for every hop along a route. Some guesswork is needed on the part of the programmer to make a program useful.

Despite your continuing abuse of the English language I know you are quite capable of understanding the foregoing waffle.

I'm on South Eastern Australian Merlot tonight. Hic!

I think the Chinese will be coming along shortly with their own high quality stuff. They are not just becoming adept with their high technology. Californian wine growers should look to their laurels. But no doubt you are all more immediately concerned with the price of oil, the gas in your tanks, and from where it may be obtained. Iraq and Iran for example.

Reg, G4FGQ

1561. Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 20:28:12 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <wP94g.76939$dW3.71257@newssvr21.news.prodigy.com>
Source record: 60303

There seems to be an assumption by some posters here that
a mobile antenna must be electrically 90 degrees in length.
Here's a simple transmission line example to illustrate why
that is not true in the case of a loading coil used with straight
sections of antenna. In the following example, all transmission
lines are lossless.

We want to build a stub that is electrically 90 degrees long,
i.e. a 1/4WL open-circuited stub. The impedance at the
mouth of the 1/4WL open-circuited stub will be 0-j0 ohms,
a short circuit. The first stage of the stub is made from
Z0=450 ohm transmission line and is 30 degrees long.

0-j0 ----30 deg of 450 ohm line----+----50 ohm line---open-circuit

The question is: How many degrees of 50 ohm line do we need
to add to get 1/4WL in all. Sounds simple, huh? Just add 60
degrees and we will have our stub. But that is NOT what happens.

The impedance at '+' is -j259 ohms. That is -j.0575 on the 450 ohm
Smith Chart but is -j5.175 on the 50 ohm Smith Chart. So it takes
only 11 degrees of 50 ohm line to replace the function of 60
degrees of 450 ohm line. Want to stuff 90 degrees of function into
a 41 degree long stub? Make it a two-stage stub as above and
take advantage of the impedance discontinuity.

There is 60 degrees between -j0.575 and infinity on a Smith Chart.

There is 11 degrees between -j5.175 and infinity on a Smith Chart.

The Z01/Z02 impedance discontinuity has provided the "missing"
49 degrees of the stub.

The stub is only 41 degrees in physical length yet it functions
just like a 90 degree stub.

The same thing holds true for mobile antennas with loading coils.
The difference between the Z0 of the straight section and the Z0
of the loading coil provides the "missing" degrees of the antenna.
There is no requirement that the antenna be physically 90 degrees
long. There is no requirement that the delay through the coil plus
the delay through the straight sections add up to 90 degrees.
The impedance discontinuity provides the "missing" number of
degrees.
--
73, Cecil, W5DXP

1562. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 20:31:02 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <xLCdna-AOt-Zt8zZRVn-uQ@comcast.com>
Source record: 60304

Roy Lewallen wrote:

> Reg Edwards wrote:
>
>>> The amplitude and phase of a field after ground reflection depends
>>
>> on
>>
>>> the polarization, and is quite different for horizontal and
>>
>> vertical. It
>>
>>> of course also depends on ground conductivity and permittivity,
>>> frequency, and angle. The equations are simple, and can be found in
>>> Kraus and other references. Those equations are used by NEC for
>>> determination of the far field pattern.
>>>
>>> Roy Lewallen, W7EL
>>
>>
>> ==
>>
>> Yes! But what's the ball park, rule-of-thumb value in dB ?
>> ----
>> Reg
>
>
> I dunno. What's the ball park, rule-of-thumb value of a resistor in ohms?

Sumptin tween nuttin and everthin
>
> Roy Lewallen, W7EL

1563. Re: Lightning suppressor?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 20:35:24 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <xLCdna6AOt-XtszZRVn-uQ@comcast.com>
Source record: 60305

Two options:
#1 Unplug when not in use
#2 Throw it out the window after it's unplugged!!

Guiding logic: Lightning is better outside the shack than inside the shack. :-)

John Ferrell wrote:

> I have a Cushcraft A3S Beam on a tower. It does not currently have a
> lightning arrestor on the feed line and is working well. The feed
> arrangement is center conductor to one side of the driven element,
> shield to the other side. There is a coil of coax at the top as a
> choke. This leaves the elements and the coax ungrounded. I have relied
> entirely on disconnecting the antenna for protection. when not in use.
> I would like to put an arrestor in the line but recommendations are
> sketchy even from those who sell them. I assume it would be most
> effective at the base of the tower on the ground rod. The drawing in
> the ARRL Antenna Handbook shows the arrestor on a common station
> ground.
>
> Comments & opinions please...
> de W8CCW John
> John Ferrell W8CCW

1564. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 20:49:28 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <s7a4g.76947$dW3.51262@newssvr21.news.prodigy.com>
Source record: 60306

"Roy Lewallen" <w7el@eznec.com> wrote:
> Richard Harrison wrote:
> > The velocity of the EM wave traveling around the turns of the coil is
> > almost equal to the velocity in a straight wire. But, the time required
> > to travel 471 inches is 40 times the time required to travel 12 inches.
> > The velocity factor is the reciprocal of 40 or 0.025.
>
> Not quite what I was expecting, but let's see if I understand what it
> means. This means that if we put a current into one end of the inductor,
> it'll take about 40 ns for current to reach the other end, right? So we
> should expect a phase delay in the current of 180 degrees at 6.15 MHz,
> or about 30 degrees at 1 MHz, from one end to the other?

Dr. Corum's VF equation predicts a VF of approximately double
Richard's with corresponding delays of 1/2 of your calculated
values.
--
73, Cecil, W5DXP

1565. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 20:50:00 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1146171000.370256.44500@i40g2000cwc.googlegroups.com>
Source record: 60307

That 44dB down from S9+20 is still well above the noise floor :-)

I've made contacts with all sorts of random pieces of conductor too.
First stealth apartment antenna was a copper tape stick-on fed against
the balcony rail.

I much prefer 100 feet of magnet wire in the clear.

To that I very much prefer what my parents let me put up in the yard
when I was in high school and college: 28 foot tube tower with an A3S,
full wave rotatable loop for 17, 2el yagi for 12, 1/4 wave groundplane
(full size) for 40, sloping dipole for 30 and an 80m inverted vee.

So far I've not used an actual rain gutter or downspout, but I did
model one downspout into my shortened vertical dipole design on 40...
it's not an *intentional* part of the antenna :-)

I think it's great to get on the air with whatever you can. My goal is
to optimize my ability to radiate a signal given the limitations of my
site, and modeling and tweaking is a big part of that. I'm trying to
DX from an apartment complex though, so a handful of dB here and there
really matter.

I didn't quite get the invisible 5 element 20m monobander up to work
VU4 tho ;-)

73,
Dan
N3OX
www.n3ox.net

1566. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 20:58:48 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146171528.582317.8890@y43g2000cwc.googlegroups.com>
Source record: 60308

FWIW, tau=sqrt(L*C); Z0=sqrt(L/C); L=3.86e-5; tau=4e-8
(Please note: That is NOT!! a lumped model!)

implies that C= 41pF and Z0=965ohms

(v.f. = 0.058 is left as an exercise for the reader.)

But if the coil's axis is parallel to a ground plane, that 6" diameter coil must be spaced about a quarter inch away from the ground plane (axis 3.25" from ground plane) to get that 41pF capacitance, and that's assuming a solid tube 3" in radius as a quick model .(An approximation!)

Cheers,
Tom

1567. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 21:01:40 UTC
From: richardharrison@webtv.net
Message-ID: <17734-44513134-417@storefull-3251.bay.webtv.net>
Source record: 60311

Roy, W7EL wrote:
"This means that if we put a current into one end of the inductor, it`ll take about 40 ns for current to reach the other end, right? So we should expect a phase delay in current of 180 degrees at 6.15 MHz, from one end to another?"

Hopper`s rule is one foot traveled per nanosecond. 40 feet of wire takes 40 nanoseconds.

The wavelength of 6.15 MHz is 48,8 or about 160 feet and in that space the phase rotates 360-degrees. 40 feet is 1/4 of 360-degrees or 90-degrees at 6.15 MHz. At 1 MHz, the wavelength is 300 meters. 12,2 meters of wire is about 15-degrees of delay by my $1-dollar Chinese calculator.

Best regards, Richard Harrison, KB5WZI

1568. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 21:03:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <CpqdnRLuOcmmr8zZRVnyvw@bt.com>
Source record: 60309

Frank wrote -
> Some approximate examples at 7 MHz with angles of incidence
> from 0 - 40 degrees:
>
> Sea Water 0.2 dB
> Rocky Ground 5 dB
> Average Gnd. 2 dB
==========
Thanks Frank,

Your figures for 7 MHz are representative of HF.

Nobody is particularly interested in MF, LF or VLF.

They confirm my latest estimate of an average, between sea water and
dry land, of roughly 3.5 dB per ground reflection.

Reg.

1569. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 21:12:36 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <BvmdnbM5c7LbqczZnZ2dnUVZ8sidnZ2d@bt.com>
Source record: 60310

Roy, you are allowing your imagination to stray.

1570. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 21:17:10 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <DaGdncEM19PLqMzZRVny3g@bt.com>
Source record: 60312

"Roy Lewallen" wrote
> Anyone who's been a ham for a few years probably has a handful of
> similar stories. What conclusions should we draw from them?
==========

None!

1571. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 21:33:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1252e5bg4o026fd@corp.supernews.com>
Source record: 60314

Sorry, my mistake. So let me rephrase my question:

This means that if we put a current into one end of the inductor, it'll take about 40 ns for current to reach the other end, right? So we should expect a phase delay in the current of 90 degrees at 6.15 MHz, or about 15 degrees at 1 MHz, from one end to the other?

Roy Lewallen, W7EL

Richard Harrison wrote:
> Roy, W7EL wrote:
> "This means that if we put a current into one end of the inductor, it`ll
> take about 40 ns for current to reach the other end, right? So we should
> expect a phase delay in current of 180 degrees at 6.15 MHz, from one end
> to another?"
>
> Hopper`s rule is one foot traveled per nanosecond. 40 feet of wire takes
> 40 nanoseconds.
>
> The wavelength of 6.15 MHz is 48,8 or about 160 feet and in that space
> the phase rotates 360-degrees. 40 feet is 1/4 of 360-degrees or
> 90-degrees at 6.15 MHz. At 1 MHz, the wavelength is 300 meters. 12,2
> meters of wire is about 15-degrees of delay by my $1-dollar Chinese
> calculator.
>
> Best regards, Richard Harrison, KB5WZI
>

1572. Smith Chart inventor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 21:34:28 UTC
From: N7QR <m@tek.com>
Message-ID: <445138e4$0$1007$39cecf19@news.twtelecom.net>
Source record: 60315

Philip H. Smith, Fellow IEEE, was born 101 years ago this Saturday and died in 1987. Delevoped the Smith Chart for matching transmission lines (also developed the cloverleaf antenna.)

1573. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 21:35:16 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <3hd2525iugq7fnnabcpsqk32okj0ncklt7@4ax.com>
Source record: 60313

On Thu, 27 Apr 2006 12:13:46 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>jawod wrote:
>> I was listening to 40M the other night and a reasonably clear SSB signal
>> came from a guy in Pennsylvania using 100 W to a rain gutter.
>>
>> It was apparently raining at the time in PA.
>>
>> All the mathematical modeling and tweaking discussed in this group ...
>> I thought the successful use of a rain gutter deserved some praise here.
>
>Why? There's nothing unusual or exceptional about it.

Indeed.

Whilst it might have, and is probably still often done, it is unlikely
to comply with limits on Maximum Permitted Exposure to EMR. It has a
host of other disadvantages (EMC incompatibility, TVI/RFI, unreliable
performance to name a few).

The configuration is known as a CIA Special down here, being a covert
antenna. I suppose it is commonly done in places where covenants
prohibit external antennas.

...
>
>Anyone who's been a ham for a few years probably has a handful of
>similar stories. What conclusions should we draw from them?

Anything and everything "works" in the minds of amateurs. In the minds
of some, a few QSOs is adequate proof that something "works", though I
know you think differently Roy.

Owen
--

1574. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 21:48:52 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <Z0b4g.21628$Kn4.13902@bignews2.bellsouth.net>
Source record: 60316

"jimbo" <jimbo62@spamex.com> wrote in message
news:cq2dnXJUtOYYCtPZnZ2dnUVZ_tednZ2d@comcast.com...
>I have been trying to get an acceptable 2 meter antenna installed in my
>attic. A J-Pole seemed to me the best solution for my attic space. You may
>recall an earlier post where I discussed SWR on one of the ladder line
>J-Poles I was working with. Well, I gave up on ladder line and constructed
>a J-Pole from 1/2 inch copper tubing. I tuned it in my basement work shop
>to give the best SWR and then took it up to the attic. The following table
>shows the results.
>
> Basement Attic
>
> 144 1.90 1.80
> 145 1.65 2.00
> 146 1.50 2.10
> 147 1.60 2.25
> 147.995 1.90 2.25
>
> Actually, probably not that bad for a first attempt at copper tubing. But,
> I didn't like the fact that SWR was above 2.0 in my attic and that things
> changed between my basement shop and the attic. I guess this design is
> influenced by objects close by.
>
> So, somewhere in my surfing I came across the Arrow J-Pole. This is an end
> fed, open stub commercial design that promises less that 1.5 SWR across
> the band. Here are the results of my experiment with this antenna.
>
> Basement Attic
>
> 144 1.10 1.22
> 145 1.18 1.10
> 146 1.25 1.20
> 147 1.30 1.32
> 147.995 1.40 1.42
>
> Not 1.0 SWR but certainly met the promise. And the best thing about this
> design is that near by objects don't seem to have an impact on
> performance. If I built one of these designs and tuned it in my basement
> shop, it should give the same results in the attic.
>
> Anyway, just my subjective observations.
>
> jimbo - AJ7IM

1575. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 21:54:26 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <b6b4g.21649$Kn4.16929@bignews2.bellsouth.net>
Source record: 60317

"jimbo" <jimbo62@spamex.com> wrote in message
news:cq2dnXJUtOYYCtPZnZ2dnUVZ_tednZ2d@comcast.com...
>I have been trying to get an acceptable 2 meter antenna installed in my
>attic. A J-Pole seemed to me the best solution for my attic space. You may
>recall an earlier post where I discussed SWR on one of the ladder line
>J-Poles I was working with. Well, I gave up on ladder line and constructed
>a J-Pole from 1/2 inch copper tubing. I tuned it in my basement work shop
>to give the best SWR and then took it up to the attic. The following table
>shows the results.
>
> Basement Attic
>
> 144 1.90 1.80
> 145 1.65 2.00
> 146 1.50 2.10
> 147 1.60 2.25
> 147.995 1.90 2.25
>
> Actually, probably not that bad for a first attempt at copper tubing. But,
> I didn't like the fact that SWR was above 2.0 in my attic and that things
> changed between my basement shop and the attic. I guess this design is
> influenced by objects close by.
>
> So, somewhere in my surfing I came across the Arrow J-Pole. This is an end
> fed, open stub commercial design that promises less that 1.5 SWR across
> the band. Here are the results of my experiment with this antenna.
>
> Basement Attic
>
> 144 1.10 1.22
> 145 1.18 1.10
> 146 1.25 1.20
> 147 1.30 1.32
> 147.995 1.40 1.42
>
> Not 1.0 SWR but certainly met the promise. And the best thing about this
> design is that near by objects don't seem to have an impact on
> performance. If I built one of these designs and tuned it in my basement
> shop, it should give the same results in the attic.
>
> Anyway, just my subjective observations.
>
> jimbo - AJ7IM

You should be able to tweak the antenna on the bench until the SWR is more like 1.15:1 or so. Once you get it right there will probably be a lot less detuning once it is put in the attic

1576. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 22:03:16 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1146175396.492716.292940@v46g2000cwv.googlegroups.com>
Source record: 60318

I've run the max permitted exposure calculators on some of my more egregiously located antennas, and you'd be surprised what it takes to exceed the limits if you're running 100W SSB. I've got to be in compliance for people on adjacent balconies, and it's pretty easy on HF.

According to http://n5xu.ae.utexas.edu/rfsafety/

Using 20% duty cycle for SSB to calculate average power of 20W into a 2.2dBi gain antenna (a pretty good rain gutter) at 7MHz, your neighbor has to be a whopping 1.46 feet from the antenna. You only have to be 0.86 feet away.

It is a good point that the stealth crowd should be checking these things out, though, as at least the apartment crew are using their antennas in densely packed quarters.

I have discovered from said site that I should not run 100W 6m RTTY into my Moxon lest the balcony next door become a more-than-allowed uncontrolled exposure zone. On the other hand, maybe that's a handy use for 25dB front to back ;-)

Dan
N3OX

1577. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 22:11:46 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1146175906.621275.139890@i39g2000cwa.googlegroups.com>
Source record: 60319

Owen,

Sorry I'm being a bit USA-centric. Maybe MPE limits in VK are more
strict?

3.68 milliwatts per square centimeter here at 7MHz.

I just noticed the "whilst" :-)

-Dan

1578. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 22:13:47 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1252ggsfrdino25@corp.supernews.com>
Source record: 60320

Owen Duffy wrote:
> . . .
> Anything and everything "works" in the minds of amateurs. In the minds
> of some, a few QSOs is adequate proof that something "works", though I
> know you think differently Roy.

Not at all. Those whose performance criteria are limited to the binary categories of "works" and "doesn't work" are free to put the boundary between the two anywhere they want. It is rather entertaining, I have to admit, listening to two such people argue about antennas when the two have chosen very different boundaries.

Roy Lewallen, W7EL

1579. Re: Smith Chart inventor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 22:18:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <z_6dnXgHUIxG3szZnZ2dnUVZ8qCdnZ2d@bt.com>
Source record: 60321

Smith did not invent the Smith Chart. He simplified, for HF use only, charts which had been in existence since the Victorian Age, which covered all transmission line frequenies down to telephone and power frequencies.

You should be warned against using Smith Charts at frequencies less than about 1.5 or 2 MHz. Errors can be introduced of which you may be unaware.

On the other hand, at higher frequencies, the Smith Chart is an accurate time saver when making ordinary engineering transmission line calculations.

But now very much superceded by small computer programs which exceed the Smith Chart in both user time and accuracy,
----
Reg.

1580. Re: Lightning suppressor?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 22:24:55 UTC
From: tclay@qmc.ph.msstate.edu
Message-ID: <87slnywtag.fsf@qmc.ph.msstate.edu>
Source record: 60323

>I would like to put an arrestor in the line but recommendations are
>sketchy even from those who sell them. I assume it would be most
>effective at the base of the tower on the ground rod. The drawing in
>the ARRL Antenna Handbook shows the arrestor on a common station
>ground.

Once you have more than one or two antennas, disconnecting the feedlines
and throwing them out the window gets to be a real pain.

you probably want to

a) ground the shield of the coax at the base of the tower, and
b) have a lightning arrestor where the coax enters the house or at
your shack, and
c) connect the grounds of the tower, shack, and power co. together

I ground the coax shields at the base of my towers, run the coax
underground to the house, and then have lightning arrestors at the
house before the coax goes up to the shack on the 2nd story.

Tor
N4OGW

1581. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 22:30:53 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <35h252lkle3veqrqpngv473hvilbch87sh@4ax.com>
Source record: 60322

On 27 Apr 2006 15:11:46 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

>Owen,
>
>Sorry I'm being a bit USA-centric. Maybe MPE limits in VK are more
>strict?

Dan, the greater issue here is the interpretation of of whether the radiator is accessible to members of the general public. If the kids next door come into the yard to retrieve their ball, it may be considered that it is accessible to the general public. Occupants of the premises (eg the rest of the family and visitors) may be considered to be the general public.

Owen

>
>3.68 milliwatts per square centimeter here at 7MHz.
>
>I just noticed the "whilst" :-)
>
>-Dan
--

1582. Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 22:39:22 UTC
From: stargatesg1 <nospam@here.net>
Message-ID: <uKb4g.43$Nh7.12@trnddc01>
Source record: 60324
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Anyone ever try using plastic drywall anchors for yagi antenna insulators?
I'm wondering how they will hold up to UV and the weather in general.

Thanks,
RoD

1583. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-27 23:00:19 UTC
From: Jozef <jozef@metaphoria.org>
Message-ID: <1146178776.858099@xwing.vermontel.net>
Source record: 60325

My first winter in Vermont in 1985 had me wanting to get back on the air. So much snow and no antennas. Then I realized that my wood stove was sitting on brick hearth in the living room and the of the chimney outside above the roof was in the neighborhood of 32 - 33 feet. I feed the RF through coax to the foot of the wood stove and worked my fair share of DX. Beam went yp soon thereafter.

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:1252ggsfrdino25@corp.supernews.com...
> Owen Duffy wrote:
>> . . .
>> Anything and everything "works" in the minds of amateurs. In the minds
>> of some, a few QSOs is adequate proof that something "works", though I
>> know you think differently Roy.
>
> Not at all. Those whose performance criteria are limited to the binary
> categories of "works" and "doesn't work" are free to put the boundary
> between the two anywhere they want. It is rather entertaining, I have to
> admit, listening to two such people argue about antennas when the two have
> chosen very different boundaries.
>
> Roy Lewallen, W7EL

1584. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 00:58:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9vp252pqm2fues06g4bq2kq0r0s6mt1ed3@4ax.com>
Source record: 60376

On Thu, 27 Apr 2006 20:28:12 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:
>There seems to be an assumption by some posters here that
>a mobile antenna must be electrically 90 degrees in length.
"Some?" In fact, only one and he cites you (which is notable in its
irony for many reasons) as his authority on this subject. Why don't
you simply email him your contribution?

1585. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 01:14:51 UTC
From: Howard W3CQH <hgorden@adelphia.net>
Message-ID: <vM-dnV9tXLgW8czZRVn-gg@adelphia.com>
Source record: 60377

Another item that also works especially on 6m, throw an old bed spring on
the roof!
73's

"Owen Duffy" <owen@no.where> wrote in message
news:3hd2525iugq7fnnabcpsqk32okj0ncklt7@4ax.com...
> On Thu, 27 Apr 2006 12:13:46 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>>jawod wrote:
>>> I was listening to 40M the other night and a reasonably clear SSB signal
>>> came from a guy in Pennsylvania using 100 W to a rain gutter.
>>>
>>> It was apparently raining at the time in PA.
>>>
>>> All the mathematical modeling and tweaking discussed in this group ...
>>> I thought the successful use of a rain gutter deserved some praise here.
>>
>>Why? There's nothing unusual or exceptional about it.
>
> Indeed.
>
> Whilst it might have, and is probably still often done, it is unlikely
> to comply with limits on Maximum Permitted Exposure to EMR. It has a
> host of other disadvantages (EMC incompatibility, TVI/RFI, unreliable
> performance to name a few).
>
> The configuration is known as a CIA Special down here, being a covert
> antenna. I suppose it is commonly done in places where covenants
> prohibit external antennas.
>
> ...
>>
>>Anyone who's been a ham for a few years probably has a handful of
>>similar stories. What conclusions should we draw from them?
>
> Anything and everything "works" in the minds of amateurs. In the minds
> of some, a few QSOs is adequate proof that something "works", though I
> know you think differently Roy.
>
> Owen
> --

1586. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 02:01:08 UTC
From: Tony Roma <TonyRom@msn.com>
Message-ID: <smt252h16hub6dljc4he5i81omufgaam16@4ax.com>
Source record: 60378
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

>On Wed, 19 Apr 2006 20:54:39 GMT, Skirt Chaser <my.em@il.dont.work>
>wrote:
>
>>
>>I know you're all going to disagree
>>with me, but a man touching and sucking on another man's cock and fucking
>>his ass just ain't right.
>
You said a mouthful. Oh and I agree with you. It just aint natural! I
mean imagine a guy sucking on my cock. what am I supposed to do, come
in his mouth??? Very disturbing!

1587. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 02:21:28 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <I_e4g.107$zn1.25@edtnps90>
Source record: 60379

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:CpqdnRLuOcmmr8zZRVnyvw@bt.com...
> Frank wrote -
>> Some approximate examples at 7 MHz with angles of incidence
>> from 0 - 40 degrees:
>>
>> Sea Water 0.2 dB
>> Rocky Ground 5 dB
>> Average Gnd. 2 dB
> ==
> Thanks Frank,
>
> Your figures for 7 MHz are representative of HF.
>
> Nobody is particularly interested in MF, LF or VLF.
>
> They confirm my latest estimate of an average, between sea water and
> dry land, of roughly 3.5 dB per ground reflection.
> ----
> Reg.

No problem Reg. I did the computations recently trying to estimate the path loss, on 7 MHz,
from the west coast to Europe via the long path. The various ground losses from all kinds of ground, including polar ice, and fresh water, are all fairly low. The real problem was to estimate the losses due to the incidence with the diffuse, conductive, ionospheric plasmas, and also to consider
the possibility that some inonospheric ducting occurs. So far I have not attempted to estimate these losses, but they must be very high, since only considering ground incidence produces unrealistically
low path losses.

Frank

1588. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 02:33:20 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44517ef1$0$1004$39cecf19@news.twtelecom.net>
Source record: 60380

Richard Clark wrote:
> On Thu, 27 Apr 2006 20:28:12 GMT, "Cecil Moore" <mycall@arrl.net>
> wrote:
>
>>There seems to be an assumption by some posters here that
>>a mobile antenna must be electrically 90 degrees in length.
>
> "Some?" In fact, only one and he cites you (which is notable in its
> irony for many reasons) as his authority on this subject. Why don't
> you simply email him your contribution?

Hang on, that was Cecil that said that!?!? Mister "a coil fills in the missing degrees on the stinger"?

tom
K0TAR

1589. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 02:37:14 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44517fdb$0$1010$39cecf19@news.twtelecom.net>
Source record: 60381

Richard Clark wrote:

> On Thu, 27 Apr 2006 20:28:12 GMT, "Cecil Moore" <mycall@arrl.net>
> wrote:
>
>>There seems to be an assumption by some posters here that
>>a mobile antenna must be electrically 90 degrees in length.
>
> "Some?" In fact, only one and he cites you (which is notable in its
> irony for many reasons) as his authority on this subject. Why don't
> you simply email him your contribution?

Or, to put it more "accurately", from Cecil's perspective, it fills in
the missing degrees at the position the coil sits.

tom
K0TAR

1590. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 02:50:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kqf4g.6352$Lm5.1311@newssvr12.news.prodigy.com>
Source record: 60382

Tom Ring wrote:
> Or, to put it more "accurately", from Cecil's perspective, it fills in
> the missing degrees at the position the coil sits.

No, in the case of a base-loaded antenna, the "missing"
degrees are filled in at the impedance discontinuity
between the coil and the stinger.
--
73, Cecil http://www.qsl.net/w5dxp

1591. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 02:58:07 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445184bf$0$1018$39cecf19@news.twtelecom.net>
Source record: 60383

Cecil Moore wrote:

> Tom Ring wrote:
>
>> Or, to put it more "accurately", from Cecil's perspective, it fills in
>> the missing degrees at the position the coil sits.
>
>
> No, in the case of a base-loaded antenna, the "missing"
> degrees are filled in at the impedance discontinuity
> *between* the coil and the stinger.

And that differs from your bugcatcher how?

tom
K0TAR

1592. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 03:12:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dl1352d852frpbg9k5cl21d0rmedng1mkq@4ax.com>
Source record: 60384

On Thu, 27 Apr 2006 21:58:07 -0500, Tom Ring <news0002@taring.org>
wrote:

>> No, in the case of a base-loaded antenna, the "missing"
>> degrees are filled in at the impedance discontinuity
>> *between* the coil and the stinger.
>
>And that differs from your bugcatcher how?
>

Hi Tom,

His has an event horizon, beyond which all missing degrees disappear
by superimposition.

73's
Richard Clark, KB7QHC

1593. Calif. agency OKs broadband via power lines test

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 03:29:40 UTC
From: stananger <stananger@********.***>
Message-ID: <opSdnf5qgayMEczZnZ2dneKdnZydnZ2d@hawaiiantel.net>
Source record: 60385

Calif. agency OKs broadband via power lines test
Thu Apr 27, 2006 2:32 PM ET

SAN FRANCISCO (Reuters) - The California Public Utilities Commission approved a plan on Thursday allowing providers of high-speed Internet services to test using electricity lines to deliver online access throughout the state.

CPUC commissioner Rachelle Chong, who drafted the plan, said broadband over power lines, or BPL, could become a new competitor to Internet services delivered via telephone, cable and satellites and help reduce prices for consumers.

BPL uses existing utility lines delivering power to neighborhoods to carry broadband signals into homes.

It has been touted by equipment makers and regulators as a possible competitor to cable and telecommunications services, which handle almost all of the roughly 40 million U.S. residential broadband connections.

The regulatory commission adopted guidelines for electric utilities and companies that wish to develop and test projects in California.

Among the guidelines, electric utility affiliates and other developers can invest in and operate BPL systems.

Utility affiliates would have to follow CPUC rules for transactions between a utility and a BPL affiliate to protect against cross-subsidies, the commission said.

1594. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 05:54:38 UTC
From: biascomms <biascomms@blueyonder.co.uk>
Message-ID: <y6i4g.60716$wl.45076@text.news.blueyonder.co.uk>
Source record: 60386
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc

stargatesg1 wrote:

> Anyone ever try using plastic drywall anchors for yagi antenna insulators?
> I'm wondering how they will hold up to UV and the weather in general.

It depends on the plastic material - it's worth doing the microwave oven
test before using it. I find that PVC that's OK in the microwave oven
usually stands up to UV well.

Bob
--
Everything gets easier with practice, except getting up in the morning!

1595. Re: Smith Chart inventor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 07:30:37 UTC
From: Jeff <jeff@local.host>
Message-ID: <e2sg8b$9o7$1@emma.aioe.org>
Source record: 60387

> Smith did not invent the Smith Chart. He simplified, for HF use only,
> charts which had been in existence since the Victorian Age, which
> covered all transmission line frequenies down to telephone and power
> frequencies.
>

That is not quite correct, what Smith did was to take to concept of the pre-existing equations and a rectangular chart which covered a limited range of impedances and develop them into a circular, more complex chart, that covered a full range of impedances. See the Introduction to Smith's book "Electronic Applications of the Smith Chart".

Regards
Jeff

1596. Re: Smith Chart inventor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 07:49:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <CKWdnRHtQeYXVMzZRVny1w@bt.com>
Source record: 60388

"Jeff" wrote
> > Smith did not invent the Smith Chart. He simplified, for HF use
only,
> > charts which had been in existence since the Victorian Age, which
> > covered all transmission line frequenies down to telephone and
power
> > frequencies.
> >
>
> That is not quite correct, what Smith did was to take to concept of
the
> pre-existing equations and a rectangular chart which covered a
limited range
> of impedances and develop them into a circular, more complex chart,
that
> covered a full range of impedances. See the Introduction to Smith's
book
> "Electronic Applications of the Smith Chart".
>
> Regards
> Jeff
==

Agreed. Your description of what Smith did is more accurate than
mine.

Reg.

1597. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 07:54:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1253iiep6f1hn5f@corp.supernews.com>
Source record: 60389

biascomms wrote:
>
> It depends on the plastic material - it's worth doing the microwave oven
> test before using it. I find that PVC that's OK in the microwave oven
> usually stands up to UV well.

That's interesting. I believe carbon is sometimes added to plastics to improve UV resistance, and it would surely increase the loss at microwave frequencies. And many plastics like clear polyethylene are excellent low loss materials and won't heat in a microwave oven, but deteriorate rapidly in sunlight.

Are you sure the correlation between microwave results and UV resistance isn't just a coincidence of the materials you happen to have tested -- sort of like having an accident just after a black cat crosses your path?

Roy Lewallen, W7EL

1598. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 08:24:00 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <yxOrQkJgEdUEFAvV@ifwtech.co.uk>
Source record: 60390

Roy Lewallen wrote:
>
>Are you sure the correlation between microwave results and UV
>resistance isn't just a coincidence of the materials you happen to have
>tested -- sort of like having an accident just after a black cat
>crosses your path?
>

Over here, black cats are supposed to be GOOD luck!

You can do anything with coincidence. All you need is enough of the kind
you're looking for :-)

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1599. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 10:59:11 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@dsl.pipex.com>
Message-ID: <m9WdnYmih-XtaMzZRVnyrQ@pipex.net>
Source record: 60391

biascomms wrote:
> stargatesg1 wrote:
>
>> Anyone ever try using plastic drywall anchors for yagi antenna insulators?
>> I'm wondering how they will hold up to UV and the weather in general.
>
> It depends on the plastic material - it's worth doing the microwave oven
> test before using it. I find that PVC that's OK in the microwave oven
> usually stands up to UV well.
==========
To be UV resistant the plastic should be black ,eg it contains carbon
black (like soot) If ,in general, plastic material is exposed to sun
light it deteriorates over time (especially when pigments are involved).
Example: coloured polypropylene rope .
If that material would be black ,it would have a very long life.
But then the sales of this material would decline ;)), hence you only
find coloured polypropylene rope ,blue ,orange ,red , yellow ,etc ,at
least in the UK.

Here in the north of Scotland (no sun in abundance) I use
(blue)polypropylene guys on a 13m (40ft)mast ,which have to be replaced
every 7 -8 years .But it is cheap.
Polyester rope as used on sailing boats is UV resistant (even without
carbon black) and would last 30+ years ,but it is relatively expensive.

Plastic antenna insulators (sold in the UK) are usually black , so are
the outdoor balun enclosures and plastic insulators on Yagi antennes.

In the 1960-70s when industrial instrumentation and control equipment
was predominantly pneumatic , coloured (polyethylene) tubing was often
used to identify types of signals in (indoor) control rooms . But since
lighting was often by fluorescent tubes , their UV radiation caused the
tubing to deteriorate and crack.
When it became a common problem an American company Samuel Moore then
produced black tubing with coloured stripes, solving the UV triggered
problem.

Frank GM0CSZ / KN6WH

1600. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 12:09:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qCn4g.77204$dW3.54012@newssvr21.news.prodigy.com>
Source record: 60392

Tom Ring wrote:
> Cecil Moore wrote:
>> No, in the case of a base-loaded antenna, the "missing"
>> degrees are filled in at the impedance discontinuity
>> *between* the coil and the stinger.
>
> And that differs from your bugcatcher how?

The whole point is that it doesn't differ.
That's how my bugcatcher works.

Here are the three parts to the answer.

1. The base-loading coil furnishes a delay equal to
a certain number of degrees which is nowhere near zero
degrees. Half of a coil self-resonant at 4 MHz would
provide 45 degrees of shift.

2. Using EZNEC to add a stinger to resonate the antenna
on 4 MHz, I find that's 11.5 degrees of straight element.
45 degrees plus 11.5 degrees is 56.5 degrees.

3. 90 - 56.5 = 33.5 degrees which is the "missing"
degrees filled in by the impedance discontinuity.
We can even estimate the ratio of the Z0 of the coil
to the Z0 of the stinger to be 5.0.
--
73, Cecil http://www.qsl.net/w5dxp

1601. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 13:21:57 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <aGo4g.1$lu7.0@fe12.lga>
Source record: 60393

>>>There seems to be an assumption by some posters here that
>>>a mobile antenna must be electrically 90 degrees in length.
>>

Must be? Must is only death and taxes!

Resonant monopole must be 90 electrical degrees and resonant dipole must be 180 electrical degrees long. But that "must" does not apply to antennas as chosen by users. You can use light bulb, screwdriver, bedsprings, wet noodle or any piece of RF conducting material of any length, shape you like, just question how good of antenna it is.

We used 90 deg. monopole in discussion to show typical loaded or mobile antenna in order to avoid detours to la-la land (cases when current can be and is equal) and to stay on the subject of current magnitude along the typical loading coil.

73 Yuri, K3BU

1602. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 13:36:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hTo4g.70610$H71.53960@newssvr13.news.prodigy.com>
Source record: 60394

Yuri Blanarovich wrote:
> We used 90 deg. monopole in discussion to show typical loaded or mobile
> antenna in order to avoid detours to la-la land (cases when current can be
> and is equal) and to stay on the subject of current magnitude along the
> typical loading coil.

Take a look at the rest of the posting, Yuri. I show where a
1/4WL stub can be made up of 30 degrees of 450 ohm line plus
11 degrees of 50 ohm line. The impedance discontinuity (at
a point) furnishes the "missing" 49 degrees of stub.

At 4 MHz, that would make a 1/4WL stub only 23.4 ft long
or about 10% of a wavelength instead of 25%.

Has anything been published on using multiple Z0's to
shorten the physical length of a stub?
--
73, Cecil http://www.qsl.net/w5dxp

1603. TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 14:53:33 UTC
From: Buck <not@this.time>
Message-ID: <6na4521tmlo4ipifhhgo0u5dvt43t3l25c@4ax.com>
Source record: 60395

I have a TenTec 247 manual antenna tuner. I am thinking about installing a roof-mount over the space between the driver and passenger in the front of my mini-van and hanging my TT tuner below it. I understand the combination with automatic tuners works well, but I have been warned against using the TT to tune short antennas on low frequencies. Of course, this was in reference to dipoles and base antennas. The problem is reportedly that the loading coil will heat up and be damaged and have to be re-wound.

I have about a 2 foot extension that I may also use to extend the antenna a little.

I don't have the money to spend on auto-tuners and I have everything but the whip and mount for the antenna configuration I just described.

comments?

--
73 for now
Buck
N4PGW

1604. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 15:02:04 UTC
From: w8ji@akorn.net
Message-ID: <1146236524.933305.75290@j33g2000cwa.googlegroups.com>
Source record: 60396

Poor Yuri.

Hanging his hat on Cecil, but now Cecil is getting the picture and
yanking the rug out from under Yuri and his "missing electrical degree
cutrrent taper and phase shift theory".

It only took three or four years, but at least that's better than
Fractenna. :-)

Cecil Moore wrote:
> The whole point is that it doesn't differ.
> That's how my bugcatcher works.
>
> Here are the three parts to the answer.
>
> 1. The base-loading coil furnishes a delay equal to
> a certain number of degrees which is nowhere near zero
> degrees. Half of a coil self-resonant at 4 MHz would
> provide 45 degrees of shift.
>
> 2. Using EZNEC to add a stinger to resonate the antenna
> on 4 MHz, I find that's 11.5 degrees of straight element.
> 45 degrees plus 11.5 degrees is 56.5 degrees.
>
> 3. 90 - 56.5 = 33.5 degrees which is the "missing"
> degrees filled in by the impedance discontinuity.
> We can even estimate the ratio of the Z0 of the coil
> to the Z0 of the stinger to be 5.0.
> --
> 73, Cecil http://www.qsl.net/w5dxp

1605. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 15:12:30 UTC
From: richardharrison@webtv.net
Message-ID: <8655-445230DE-371@storefull-3253.bay.webtv.net>
Source record: 60398

Cecil, W5DXP wrote:
"Dr. Corum`s VF equation predicts a VF of approximately double Richard`s----."

I wonder why? Dr. Terman wrote that the wave follows the turns in a coil. My recollection of common solid-dielectric coax VF is about 2/3 that of free-space due to the fense plastic.

Twice the velocity factor in a coil requires a wave traveling faster than light or taking a short-cut around the turns.

I often learn from my mistakes. Where did I err?

Best regards, Richard Harrison, KB5WZI

1606. Re: Smith Chart inventor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 15:13:50 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e2tbfg$5hj$1@avnika.corp.mot.com>
Source record: 60397

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:z_6dnXgHUIxG3szZnZ2dnUVZ8qCdnZ2d@bt.com...
> ...
> You should be warned against using Smith Charts at frequencies less
> than about 1.5 or 2 MHz. Errors can be introduced of which you may be
> unaware.... ----

Reg.

I'm curious. Would you briefly summarize the type/cause of the Medium
Frequency errors.

73, Steve, K9DCI

1607. blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 15:29:38 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1146238178.410103.29330@y43g2000cwc.googlegroups.com>
Source record: 60399
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Tony Roma wrote:
> >On Wed, 19 Apr 2006 20:54:39 GMT, Skirt Chaser <my.em@il.dont.work>
> >wrote:

> You said a mouthful. Oh and I agree with you. It just aint natural!
funny it occours outside of man and outside the primates in nature all
the time

1608. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 15:29:58 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1146238198.871231.23670@e56g2000cwe.googlegroups.com>
Source record: 60400

If there is a heating problem with a short dipole, there will be a heating problem with a 102" whip.

Some automatic tuners may do OK with the short whip. I think SGC does this, but if it works and is reasonably low-loss it is because the tuner is designed to do well with a short whip.

One way to make the tuner match a short whip better on low frequencies is to include a loading coil, in this case, at the base, to bring the antenna into resonance. The impedance of the antenna will then be a low resistive impedance, rather than a low resistive part and lots of capacitative reactance. The tuner will handle this better than the very short whip without a coil.

It seems to me that a short-whip automatic tuner should have an inductance in series with the antenna input, maybe a LCL tee network. I don't know what sort of topology the T-T 247 has but I don't think anyone is building an LCL tee manual antenna tuner. It'd be easy to do in an auto tuner though.

Anyone know the internals of the SGC short whip tuner (the one with the whip mounted to it)?

Dan,
N3OX

1609. Eavesdropping Video Receives 5 Stars Review

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 15:32:16 UTC
From: ctaylor@pinpoint-productions.com
Message-ID: <1146238335.903284.286920@j73g2000cwa.googlegroups.com>
Source record: 60401

The newspapers and journals are full of information about warrantless wiretapping and eavesdropping. What many people do not realize is that the type of eavesdropping occurring for national security purposes is vastly different than the real world of eavesdropping and wiretapping utilized for industrial espionage, law enforcement and by your local private investigator or tech-guy that has crossed the line into illegal eavesdropping.

Now, the realistic world of eavesdropping has been thoroughly exposed in the new two-hour video called "The Red Balloon". Already recognized as the best Issue Awareness Video in 2005 at the international Aurora Awards and given a 5 Stars review in the March issue of Security Management, The Red Balloon presents the government and industry statistics about industrial espionage and eavesdropping, and how big this problem really is. It also reveals the different types of eavesdropping devices used with illegal wiretapping and eavesdropping and the novel techniques utilized by both professional and amateur eavesdroppers.

If you are curious about the eavesdropping industry then you simply must see the powerful informational video presented by one of the world's most recognized experts in the field. To learn more you can go to http://www.tscmvideo.com

1610. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 15:52:31 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1146239551.098051.239610@u72g2000cwu.googlegroups.com>
Source record: 60402

In doing a bit of google searching for

short unloaded whip tuner

I've found some sources that say that the auto tuners tend to have a wider efficient matching range than the typical manual tuner.

So it may have nothing to do with network topology, it's just that if you can manage to match a very short unloaded whip with your typical manual tuner, you're going to be out at the edge of the matching range where it is quite inefficient.

What's the group experience with this? If it's true that the automatic tuners tend to be more efficient for a given range of impedances, what are likely reasons?

Can the typical auto tuner switch from LCL tee to CLC tee? Pi to Tee?

Is it always going to be better to use a binary switched inductor and capacitor system as opposed to a variable capacitor/tapped inductor system?

Maybe it's just that the latter usually gets shoved into a tiny box and the inductor Q is ruined?

Dan,
N3OX

1611. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 16:01:08 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <8%q4g.70661$H71.41842@newssvr13.news.prodigy.com>
Source record: 60403

w8ji@akorn.net wrote:
> Poor Yuri.
>
> Hanging his hat on Cecil, but now Cecil is getting the picture and
> yanking the rug out from under Yuri and his "missing electrical degree
> cutrrent taper and phase shift theory".
>
> It only took three or four years, but at least that's better than
> Fractenna. :-)
>
> Cecil Moore wrote:
>
>>The whole point is that it doesn't differ.
>>That's how my bugcatcher works.
>>
>>Here are the three parts to the answer.
>>
>>1. The base-loading coil furnishes a delay equal to
>>a certain number of degrees which is nowhere near zero
>>degrees. Half of a coil self-resonant at 4 MHz would
>>provide 45 degrees of shift.
>>
>>2. Using EZNEC to add a stinger to resonate the antenna
>>on 4 MHz, I find that's 11.5 degrees of straight element.
>>45 degrees plus 11.5 degrees is 56.5 degrees.
>>
>>3. 90 - 56.5 = 33.5 degrees which is the "missing"
>>degrees filled in by the impedance discontinuity.
>>We can even estimate the ratio of the Z0 of the coil
>>to the Z0 of the stinger to be 5.0.
>>--
>>73, Cecil http://www.qsl.net/w5dxp
>
>

Yes, except that Cecil is just replacing one idiotic theory
with another. That's o.k., he has to do something out there in
the Texas hinterlands to keep out of trouble. The unfortunate
thing, though, is that there might be someone in this world who
takes him seriously.
73,
Tom Donaly, KA6RUH

1612. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 16:08:53 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e2temm$5so$1@avnika.corp.mot.com>
Source record: 60404

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:qCn4g.77204$dW3.54012@newssvr21.news.prodigy.com...
> Tom Ring wrote:
> > Cecil Moore wrote:
> >> There seems to be an assumption by some posters here that
a mobile antenna must be electrically 90 degrees in length.
Here's a simple transmission line example to illustrate why
that is not true in the case of a loading coil used with straight
sections of antenna. In the following example, all transmission
lines are lossless. ... 73, Cecil http://www.qsl.net/w5dxp

You guys sure like to go on-and-on starting with someones "rule of thumb" or catch phrase, taking either correct or not so correct math to prove or disprove what you may or may not already know...or just wave your flag in otheres faces. I guess my real point is that I see many uses of "electrical length" and "physical length" many of which are not used correctly. If the mental model(s) we have and are trying to use as a basis for a field of study don't quite work well enough to be useful most all the time, then they probably aren't correct. The best model is one that always applies when applied appropriately and you won't know what appropriate means unless you have a good model to base it on. I know this soulds like circular reasonong, but that's the way it works and the best way I can descxribe it.

I think "electrical length of a conbination of components" is a poor way to look at it and therefore a poor mental model to use. Bring in an uneeded term called "electrical length" or looking for the "missing degrees" is pretty much a red herring complication. I maintain that trying to fit an "electricall length" to such a combination helps none in the understanding.

You do the math, get the correct answer and you are done. You don't need an extra "name".

My point would be that "elecreical length" is only correctly applicable to _A_ single length of Transmisison line. trying to force it into every other situation is only causing confusion and I should rest my case here, but....
We need it because there is a velocity factor and therefore, the phisical length is no longer good enough for discussion. It is obvious that hooking up different lengths of different characteristic impedance transmisison line has a complex effect on what you wind up with and it is therefore inapropriate to use that specific terminology to describe the complex situation. I didn't check Cecil's math, but assuming he did it correctly, this is no surprise - it is expected as a result. However, have a need to ascribe a TOTAL "electrical length" based on individual "electrical lengths" of a complex combination of lines is inappropriate - not helpful for real

nunderstanding.
You might be inclined, and therefore properly understood, if you talk about the finished product in a slightly different mannor. If the phase angle and impedance is the same as you would have gotten with some (single hunk of) reference line, then you could say that it "appears equivalent to" a such-and-such line with an electrical length of X degrees, but the complex combinatin no longer has something we can rightly call an electrical length because it is not an _it_, but a _them_...if you get my drift.

You guys are going to use up all the words for the rest of us... (:-)
73, Steve, K9DCI
asbestos shorts fresh out of the wash...

1613. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 16:30:28 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Eqr4g.21534$tN3.9420@newssvr27.news.prodigy.net>
Source record: 60405

<w8ji@akorn.net> wrote:
> Hanging his hat on Cecil, but now Cecil is getting the picture and
> yanking the rug out from under Yuri and his "missing electrical degree
> cutrrent taper and phase shift theory".

Is the purpose of this newsgroup to smear individuals or to
get to the technical facts? Nobody is 100% correct 100% of
the time. The coil still occupies tens of degrees and still
suffers a current taper because of that delay.

> It only took three or four years, but at least that's better than
> Fractenna. :-)

I wouldn't laugh just yet, Tom. There's plenty of misconceptions
on both sides. The delay through the loading coil is still tens of
degrees, not anywhere close to the near-zero degrees that you have
been asserting for years. The delay through a typical 75m bugcatcher
coil appears to be about ~35 degrees with ~11 degrees of stinger.
The "missing" ~44 degrees occurs at the impedance discontinuity
between the coil and the stinger just as it does in my 450/50 ohm
stub example.

The 3 nS delay measured by you and the undetectable delay
measured by W7EL were invalid measurements of delay.
Standing wave current suffers zero delay all along a 1/2WL
dipole whether it be in a wire or in a coil. The delay through a
typical mobile loading coil on 4 MHz appears to be about 25 nS
about half of what one would get in a straight wire equal to the
wire used in the coil.
--
73, Cecil, W5DXP

1614. Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 16:31:42 UTC
From: Pierre Desjardins <pierred1@sympatico.ca>
Message-ID: <icg45291fio7hru744scc2jjioa5ik20m8@4ax.com>
Source record: 60407

Hi to all.. It is well know that a reduction in the diameter of the wire must be compensated by a higher antenna length to maintain resonance.

I am looking for an explanation of the reason for this. Why the total reactance becomes more capacitive? I know math formula showing the variation of the inductance of the wire vs its diameter, but I a looking for the real reason, not the mathematical consequence.

I suspect that a higher diam cause higher transormation of AC to electromagnetic energy on a segment delta(l) so that a shorter physical length would be needed to include the full electrical 180 degrees of a dipole.. but not really sure of this.

Any comment would be welcome

Thanks, and 73 de Pierre ve2pid

1615. Re: Smith Chart inventor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 16:42:16 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146242536.788436.200490@i39g2000cwa.googlegroups.com>
Source record: 60406

-- If you are unaware of the errors at low frequencies, it may well not make much difference whether you are using the Smith chart or not. Those errors may still bite you.

-- If your computer isn't powered up and you have a quick calc to do, the "small computer program" may very well far exceed the Smith chart in user time!

-- Though a program may provide more accurate calculations for the given input values than a Smith chart, it would be unusual that you KNOW the impedances, line lengths, inductances, etc. that you are working with to the accuracy to which they can be plotted on a decent-size Smith chart. It's easy to plot things to within 0.01 reflection coefficient units on such a chart, and it's very likely that the "50 ohm" coax you are using will be further away from 50 ohms than that. To quote some famous guru, 'Have you never heard of the word "approximation"?'

-- For those of us who appreciate that sort of graphical representation, a Smith chart can be a wonderful visualization tool. To me, that's its strongest point. Forget using it to DO the calculations; let a computer program or a vector network analyzer do the calcs or make the measurements. It's still worthwhile to me to have the results presented on the Smith chart overlay of complex reflection coefficient. (Note that a Smith chart is 'just' grid lines on top of a linear graph of reflection coefficient referenced to the normalization impedance you're using.) And of course it's useful for far more than just transmission lines.

For those who always have an appropriate calculating engine at hand and don't get anything out of a graphical representation of the results, toss the Smith chart out the window. But don't assume it's not still _very_ useful to those who see things easily from the graphics. Can YOU look at a table of 100 values of complex reflection coefficient versus frequency for a component and summarize them in your mind as rapidly as you can by looking at the same values plotted on a Smith chart? If you can, that's great. I can't. Thank you, Mr. Smith.

Cheers,
Tom

1616. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 16:47:21 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <tGr4g.21541$tN3.16916@newssvr27.news.prodigy.net>
Source record: 60408

"Richard Harrison" <richardharrison@webtv.net> wrote:
> Twice the velocity factor in a coil requires a wave traveling faster
> than light or taking a short-cut around the turns.
>
> I often learn from my mistakes. Where did I err?

The current does take a short-cut due to adjacent coil coupling.
But please note the velocity factor only approximately doubles
from the "round and round the coil" calculation. Even though a
VF of 0.04 is ~double the "round and round the coil" approximation,
it is still 96% away from the VF=1.0 originally asserted by W8JI
which assumes that all the coils couple 100% to all the other coils.
--
73, Cecil, W5DXP

1617. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 17:31:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fij452l2ua54gk64rf66bi09j845ktld01@4ax.com>
Source record: 60409

On 28 Apr 2006 08:52:31 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

Hi Dan,

There are so many red lights going on, this was impossible to pass up.

>I've found some sources that say that the auto tuners tend to have a
>wider efficient matching range than the typical manual tuner.

Unless "they" can tie this to known antenna impedances, such claims
are worthless. And for another, what are the "typical" tuners that
are being compared to? Its easy enough to say what they are if it was
easy enough to measure them to support this claim.

>So it may have nothing to do with network topology, it's just that if
>you can manage to match a very short unloaded whip with your typical
>manual tuner, you're going to be out at the edge of the matching range
>where it is quite inefficient.

Matching and effeciency are only distantly related. Using padding
resistors could pull any antenna into a match - not much efficiency
there.

>What's the group experience with this? If it's true that the automatic
>tuners tend to be more efficient for a given range of impedances, what
>are likely reasons?

There's a sucker born every minute?

>Can the typical auto tuner switch from LCL tee to CLC tee? Pi to Tee?

That would have seem to have answered itself if your survey of
different auto-tuners was useful. Barring these results being
obvious, it would seem you simply discovered the font of Marketing
hype.

>Is it always going to be better to use a binary switched inductor and
>capacitor system as opposed to a variable capacitor/tapped inductor
>system?

Depends on the granularity. Binary could mean one of two, or one of
1024.

>Maybe it's just that the latter usually gets shoved into a tiny box and
>the inductor Q is ruined?

For auto-tuners, that should be evident - and a marked counter to the
claim of greater efficiency.

73's
Richard Clark, KB7QHC

1618. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 17:52:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mhk4525n7q8gbb68v33qqe3vpr5thc4p5v@4ax.com>
Source record: 60410

On Fri, 28 Apr 2006 10:53:33 -0400, Buck <not@this.time> wrote:

>I have been warned against using the TT to tune short antennas on
>low frequencies.

Hi Buck,

Such advice is worthless as it says nothing about frequency, nor
shortness.

> Of course, this was in reference to dipoles and base antennas.

Of course, nothing! The tuner has no way of distinguishing any
antenna and the lead from it as anything but a load.

>The problem is reportedly that the loading coil will heat
>up and be damaged and have to be re-wound.

No doubt.

>I have about a 2 foot extension that I may also use to extend the
>antenna a little.

Try it with a "short" 160M antenna, and folks will be making coil
winding gestures next to their heads for you.

>I don't have the money to spend on auto-tuners and I have everything
>but the whip and mount for the antenna configuration I just described.

You must have some idea of what band you are going to use it on, what
is it?

73's
Richard Clark, KB7QHC

1619. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 18:04:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <NOs4g.21565$tN3.16461@newssvr27.news.prodigy.net>
Source record: 60411

Steve N. wrote:
> You might be inclined, and therefore properly understood, if you talk
> about the finished product in a slightly different mannor. If the phase
> angle and impedance is the same as you would have gotten with some (single
> hunk of) reference line, then you could say that it "appears equivalent to"
> a such-and-such line with an electrical length of X degrees, but the complex
> combinatin no longer has something we can rightly call an electrical length
> because it is not an _it_, but a _them_...if you get my drift.

Steve, I put "missing" in quotes because there is no missing part of
the antenna. I've been saying for months that a 75m mobile antenna
doesn't have to be 90 degrees long to be resonant. All that is
required is that (Vfor+Vref) be in phase with (Ifor+Iref) where
those are phasor additions. The real world phase shift accomplished
by an impedance discontinuity is caused by instantaneous interference
and doesn't require a delay. The basics of such an event are covered
in my '05 magazine article available at http://www.qsl.net/w5dxp/energy.htm
--
73, Cecil http://www.qsl.net/w5dxp

1620. Automatic tuner efficiency survey... from Re: TT-247 and 102 whip

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 18:48:32 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1146250112.882895.228510@j73g2000cwa.googlegroups.com>
Source record: 60412

Richard, first I'll say that I did NOT find a survey, I've seen statements to this effect. (See http://www.eham.net/articles/4424) Of course, I've found statements to the contrary.

I'd like to collect some data points if people have actually measured the input and output power of their tuner into various loads, and I'll keep looking for real data.

I'd also like to focus my question about matching range and efficiency and retract all the other questions for now. I realize reading your response that I asked a bunch of general questions that were at best ill-defined an at worst trolly-sounding.

Pick a topology, let's say the shunt L tee (CLC) because it's so common. Assume your tuner (the one who tunes), human or microprocessor, is smart enough to select the most efficient values of C1, L and C2 if there happens to be more than one solution for a particular set of impedances.

Let's say I have a range of impedances within which I can get a 1:1 50 ohm SWR: How about the interior of the rectangle between 5 and 1000 ohms resistance, -500 to 500 ohms reactance.

Then take the subregion of that rectangle where efficiency of the tuner is greater than some value, say, 79.4% (so you're losing no more than 1dB in the tuner)

Here's one question:

Is that subregion really complicated, with lots of small spots where you can get an efficient match right next to spots where you're dumping lots of power into the tuner, or is the variation more smooth?

I'll leave it at that for now. I've got more questions that would pend knowing the answer to that one.

I may have to sit down with one of the CLC tuner simulators and make myself a plot.

Dan
N3OX

Richard Clark wrote:
> On 28 Apr 2006 08:52:31 -0700, "n3ox.dan@gmail.com"
> <n3ox.dan@gmail.com> wrote:
>
> Hi Dan,
>

> There are so many red lights going on, this was impossible to pass up.
>
> >I've found some sources that say that the auto tuners tend to have a
> >wider efficient matching range than the typical manual tuner.
>
> Unless "they" can tie this to known antenna impedances, such claims
> are worthless. And for another, what are the "typical" tuners that
> are being compared to? Its easy enough to say what they are if it was
> easy enough to measure them to support this claim.
>
> >So it may have nothing to do with network topology, it's just that if
> >you can manage to match a very short unloaded whip with your typical
> >manual tuner, you're going to be out at the edge of the matching range
> >where it is quite inefficient.
>
> Matching and effeciency are only distantly related. Using padding
> resistors could pull any antenna into a match - not much efficiency
> there.
>
> >What's the group experience with this? If it's true that the automatic
> >tuners tend to be more efficient for a given range of impedances, what
> >are likely reasons?
>
> There's a sucker born every minute?
>
> >Can the typical auto tuner switch from LCL tee to CLC tee? Pi to Tee?
>
> That would have seem to have answered itself if your survey of
> different auto-tuners was useful. Barring these results being
> obvious, it would seem you simply discovered the font of Marketing
> hype.
>
> >Is it always going to be better to use a binary switched inductor and
> >capacitor system as opposed to a variable capacitor/tapped inductor
> >system?
>
> Depends on the granularity. Binary could mean one of two, or one of
> 1024.
>
> >Maybe it's just that the latter usually gets shoved into a tiny box and
> >the inductor Q is ruined?
>
> For auto-tuners, that should be evident - and a marked counter to the
> claim of greater efficiency.
>
> 73's
> Richard Clark, KB7QHC

1621. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 19:03:53 UTC
From: richardharrison@webtv.net
Message-ID: <6547-44526719-471@storefull-3255.bay.webtv.net>
Source record: 60413

Cecil, W5DXP wrote:
"The current does take a short-cut due to adjacent coil coupling."

R.W.P. King wrote on page 81 of Transmission Lines, Antennas, and Wave Guides:
"The electromagnetic field in the near zone is characterized by an inverse-square law for amplitude and by quasi-instantaneous action."

I still don`t know what to make of King`s assertion regards instantaneous action.

Best regards, Richard Harrison, KB5WZI

1622. Re: Smith Chart inventor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 19:21:34 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <fpp452ta0955su5rfiag43cikmdgv1p72h@4ax.com>
Source record: 60414

On 28 Apr 2006 09:42:16 -0700, "K7ITM" <k7itm@msn.com> wrote:

>-- If you are unaware of the errors at low frequencies, it may well not
>make much difference whether you are using the Smith chart or not.
>Those errors may still bite you.
>
>-- If your computer isn't powered up and you have a quick calc to do,
>the "small computer program" may very well far exceed the Smith chart
>in user time!
>
>-- Though a program may provide more accurate calculations for the
>given input values than a Smith chart, it would be unusual that you
>KNOW the impedances, line lengths, inductances, etc. that you are
>working with to the accuracy to which they can be plotted on a
>decent-size Smith chart. It's easy to plot things to within 0.01
>reflection coefficient units on such a chart, and it's very likely that
>the "50 ohm" coax you are using will be further away from 50 ohms than
>that. To quote some famous guru, 'Have you never heard of the word
>"approximation"?'
>
>-- For those of us who appreciate that sort of graphical
>representation, a Smith chart can be a wonderful visualization tool.
>To me, that's its strongest point. Forget using it to DO the
>calculations; let a computer program or a vector network analyzer do
>the calcs or make the measurements. It's still worthwhile to me to
>have the results presented on the Smith chart overlay of complex
>reflection coefficient. (Note that a Smith chart is 'just' grid lines
>on top of a linear graph of reflection coefficient referenced to the
>normalization impedance you're using.) And of course it's useful for
>far more than just transmission lines.
>
>For those who always have an appropriate calculating engine at hand and
>don't get anything out of a graphical representation of the results,
>toss the Smith chart out the window. But don't assume it's not still
>_very_ useful to those who see things easily from the graphics. Can
>YOU look at a table of 100 values of complex reflection coefficient
>versus frequency for a component and summarize them in your mind as
>rapidly as you can by looking at the same values plotted on a Smith
>chart? If you can, that's great. I can't. Thank you, Mr. Smith.

Right on.

And another handy feature is the ability to see what elements of a
matching network are doing. Lines of constant Q drawn on the chart
can also keep one out of trouble.

I remember one thread about 3 years ago wherein someone (he knows who he is) stated that fewer matching elements -always- provide a lower loss solution than more elements do. A few minutes with a Smith chart with some constant Q circles and I found an example where that is not the case.

1623. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 19:30:24 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <C3u4g.28$6V5.6@fe09.lga>
Source record: 60415

<w8ji@akorn.net> wrote in message
news:1146236524.933305.75290@j33g2000cwa.googlegroups.com...
> Poor Yuri.
>
> Hanging his hat on Cecil, but now Cecil is getting the picture and
> yanking the rug out from under Yuri and his "missing electrical degree
> cutrrent taper and phase shift theory".
>
> It only took three or four years, but at least that's better than
> Fractenna. :-)
>

"Brilliant" Tom!

putting words in my mouth, twisting and trying to weasel out of technical arguments by spewing personal crapattack.
Argument is about you claiming current in a loading coil is ALWAYS the same, which has been shown to be WRONG and crap on your web site is still proof of it. You can make up stories about my theories, it will not prove you RIGHT.

Where did you get your "engineering" degree Tom and by what rights you use "JI Engineering"? That smells with fraud!!!
Care to continue with bulshit?
Grove up or get help!

73 Yuri

1624. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 19:30:47 UTC
From: Ray Norshine <raynorshine@invalid.kom>
Message-ID: <H3u4g.25$Yq.14@fe06.lga>
Source record: 60416
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb

"an old freind" <kb9rqz-ars@hotmail.com> wrote in
news:1146238178.410103.29330@y43g2000cwc.googlegroups.com:

>
> Tony Roma wrote:
>> >On Wed, 19 Apr 2006 20:54:39 GMT, Skirt Chaser <my.em@il.dont.work>
>> >wrote:
>
>> You said a mouthful. Oh and I agree with you. It just aint natural!
>
> funny it occours outside of man and outside the primates in nature all
> the time
>

an old freid kb9rqz@hotmail.com
an old freind kb9rqz@amsat.org
an old freind kb9rqz_ars@hotmail.com
an old freind kb9rqz_ars@yahoo.com
an old freind upperpenarmyguy@yahoo.com
an old friend kb9rqz@amsat.org
an old friend kb9rqz@hotmail.com
an old friend kb9rqz@yahoo.com
an_old_friend konstans@hotmail.com

"gte help"

1625. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 19:36:51 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <F9u4g.29$6V5.7@fe09.lga>
Source record: 60417

Try increased capacitance from larger wire diameter, larger surface (plate)
area.
Capacitance goes up, inductance (length) has to come down in order to
maintain resonance - LC circuit in standing wave environment.

73 Yuri, K3BU, VE3BMV, VE1BY

"Pierre Desjardins" <pierred1@sympatico.ca> wrote in message
news:icg45291fio7hru744scc2jjioa5ik20m8@4ax.com...
> Hi to all.. It is well know that a reduction in the diameter of the
> wire must be compensated by a higher antenna length to maintain
> resonance.
>
> I am looking for an explanation of the reason for this. Why the total
> reactance becomes more capacitive? I know math formula showing the
> variation of the inductance of the wire vs its diameter, but I a
> looking for the real reason, not the mathematical consequence.
>
> I suspect that a higher diam cause higher transormation of AC to
> electromagnetic energy on a segment delta(l) so that a shorter
> physical length would be needed to include the full electrical 180
> degrees of a dipole.. but not really sure of this.
>
> Any comment would be welcome
>
> Thanks, and 73 de Pierre ve2pid

1626. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 19:55:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dks452hkqnmjtitf1imsscik9av4ngrkn5@4ax.com>
Source record: 60418

On Fri, 28 Apr 2006 12:31:42 -0400, Pierre Desjardins
<pierred1@sympatico.ca> wrote:

>Why the total reactance becomes more capacitive?

Hi Pierre,

The total reactance before you shrank the wire diameter was balanced at zero (presuming a resonant structure). After the wire diameter was made smaller, for the same length, the inductance was lowered. Less inductance to balance the existing capacitance leaves an excess capacitance you observe. Of course, by making the wire thinner also changes capacitance, the change in inductance moved further.

73's
Richard Clark, KB7QHC

1627. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 20:28:56 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146256136.332525.320580@i39g2000cwa.googlegroups.com>
Source record: 60419

Oh, Richard, Richard...

A smaller wire diameter has MORE inductance, not less, in the same environment. Think for a moment about coax: reduce the inner conductor diameter, and the impedance goes up while the propagation velocity stays the same. That means that C goes down and L goes up.

For Pierre: something else to ponder is that the change for resonance (zero reactance) in a half-wave dipole is considerably less than the change in a full-wave ("anti-resonant") dipole, for the same wire diameter change.

I don't think that simple concepts of the antenna behaving like a TEM transmission line are going to cut it here, and I'll wait for a better explanation than that.

Cheers,
Tom

1628. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 21:30:49 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146259849.651768.225070@j33g2000cwa.googlegroups.com>
Source record: 60420
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb

liek I said blame those starting all the gay name calling not the ARRL
the ARRl has pleaenty of it own fckups no need to invent thing to blame
them for

1629. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 22:11:21 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e2u3ua$7s8$1@avnika.corp.mot.com>
Source record: 60421

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:NOs4g.21565$tN3.16461@newssvr27.news.prodigy.net...
> Steve N. wrote:
> > ...if you get my drift.
>
> Steve, I put "missing" in quotes because there is no missing part of
> the antenna.

I think I understand your intent. What I say is drop the following
sentence:

"I've been saying for months that a 75m mobile antenna
doesn't have to be 90 degrees long to be resonant.

Forget electrical length discussions in regard to anything but a single transmission line piece. I don't think it makes any improvement in understanding what is going on to add talk about something you want to call the electrical length of a complex system of lines and components. I think it adds unnecessary complication. My opinion is that this is taking a concept used in transmission line discussions and applying it where it is not needed.

Though I didn't verify your math on the original example, I don't find the type of result surprising and doing he math is all that is needed. I would not have expected that the "degrees" of electrical length to add up to 90, or whatever an equivalent antenna or t-line length would have been. I do understand the desire to form what I call a "mental model" which allows us to understand how things work so that we can use them. Lord knows that waves need some kind of help to get them into our minds so we can feel comfortable about how this all fits together. In fact, sometimes I get the impression these discussions become a battle between two mental models that may work for the individual posters, but don't fit into the other's model and many words ensue trying to pull each other over to the other's mental model paradigm.

Talk such as the following it sufficient. (although I'd have to think about the specific thing you say here since I don't think about transmission line things in those terms)

> All that is
> required is that (Vfor+Vref) be in phase with (Ifor+Iref) where
> those are phasor additions. ...detail snipped
> -- 73, Cecil http://www.qsl.net/w5dxp

Whatever lights your fire. It is fun reading some of the discussions, though

73, Steve, K9DCI

1630. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 22:36:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <a42552dshiis72i1pnut6e98d6n2sbulrc@4ax.com>
Source record: 60422

On 28 Apr 2006 13:28:56 -0700, "K7ITM" <k7itm@msn.com> wrote:

>Oh, Richard, Richard...

Hi Tom,

>A smaller wire diameter has MORE inductance, not less, in the same
>environment.

Yes, I did invert the relation of thickness to inductance - for a short wire. However, the feedpoint observation speaks of common results offering a different perspective. This is the question.

It does not intuitively follow to describe less capacitance for the same size, but now thinner antenna makes an antenna more capacitive, does it? [A transform is at work.]

>Think for a moment about coax: reduce the inner
>conductor diameter, and the impedance goes up while the propagation
>velocity stays the same.

This analogy begins to break down for antennas in that as the antenna grows thinner/thicker, the propagation velocity does change. On the other hand, and agreeing with your example, Z tracks (lower w/thicker) with an antenna. This is in conflict.

>That means that C goes down and L goes up.
with a proviso:
>I don't think that simple concepts of the antenna behaving like a TEM
>transmission line are going to cut it here, and I'll wait for a better
>explanation than that.

No, it didn't.

For an antenna with an with an element circumference of 0.001 wavelength, the Vf is 0.97 to 0.98. Compared to an antenna with an element circumference of 0.1 wavelength, the Vf is 0.78 to 0.79.

Velocity factor is a property of the capacitor's insulative medium (relative permittivity), which has never changed. [I would argue that the medium has in fact changed by the presence of the radiator, but that is another thread.]

Large structures near resonance confound small component analytical results. So, we will both wait for Reggie to explain it in what he calls english; or for Cecil to explode with a new SWR analysis.

73's
Richard Clark, KB7QHC

1631. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 22:39:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gQw4g.18376$4L1.3463@newssvr11.news.prodigy.com>
Source record: 60423

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "The current does take a short-cut due to adjacent coil coupling."
>
> R.W.P. King wrote on page 81 of Transmission Lines, Antennas, and Wave
> Guides:
> "The electromagnetic field in the near zone is characterized by an
> inverse-square law for amplitude and by quasi-instantaneous action."
>
> I still don`t know what to make of King`s assertion regards
> instantaneous action.

From the IEEE Dictionary: "instantaneous - A qualifying term
indicating that no delay is purposely introduced in the action
of the device."

Does anyone have a formula for the coupling factor between
turns in a coil?
--
73, Cecil http://www.qsl.net/w5dxp

1632. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 23:15:16 UTC
From: stargatesg1 <nospam@here.net>
Message-ID: <8mx4g.61$3l4.24@trnddc03>
Source record: 60424

Thanks to all for the replies. I am considering building a few VHF and UHF yagi's for weak signal work and just kicking ideas around in my head. I was at Lowe's hardware the other day and spied the plastic drywall anchors. I took one from the package and over to the steel and aluminum rod isle and to my surprise one size of anchor was a PERFECT fit to 3/16" rod and another to 1/8".
The 1/8" (rod size) anchor even looks like the clamping ears (for lack of a better description) would extend and lock the anchor into place in a 1/16" or 3/32" antenna boom. If they can stand the rigors of the weather and have no detrimental effect at the frequencies being used, they look almost ideal!
I don't remember the color of the material but different sizes are different colors.
It might be interesting to throw a few in the microwave to see if they have any reactivity at even that high of a frequency. If they pass that test, I think I will build a yagi and see how long it last's. At worst, all I would have to do is replace them with Delrin in a year or two. I was hoping someone on here had tried it already but guess I get to be the guinea pig:-)
I will post later how it comes out.

Thanks,
RoD

"Highland Ham" <abcgm0csz.kn6whxyz@dsl.pipex.com> wrote in message news:m9WdnYmih-XtaMzZRVnyrQ@pipex.net...
> biascomms wrote:
> > stargatesg1 wrote:
> >
> >> Anyone ever try using plastic drywall anchors for yagi antenna insulators?
> >> I'm wondering how they will hold up to UV and the weather in general.
> >
> > It depends on the plastic material - it's worth doing the microwave oven
> > test before using it. I find that PVC that's OK in the microwave oven
> > usually stands up to UV well.
> ==========
> To be UV resistant the plastic should be black ,eg it contains carbon
> black (like soot) If ,in general, plastic material is exposed to sun
> light it deteriorates over time (especially when pigments are involved).
> Example: coloured polypropylene rope .
> If that material would be black ,it would have a very long life.
> But then the sales of this material would decline ;)), hence you only
> find coloured polypropylene rope ,blue ,orange ,red , yellow ,etc ,at
> least in the UK.

>
> Here in the north of Scotland (no sun in abundance) I use
> (blue)polypropylene guys on a 13m (40ft)mast ,which have to be replaced
> every 7 -8 years .But it is cheap.
> Polyester rope as used on sailing boats is UV resistant (even without
> carbon black) and would last 30+ years ,but it is relatively expensive.
>
> Plastic antenna insulators (sold in the UK) are usually black , so are
> the outdoor balun enclosures and plastic insulators on Yagi antennes.
>
> In the 1960-70s when industrial instrumentation and control equipment
> was predominantly pneumatic , coloured (polyethylene) tubing was often
> used to identify types of signals in (indoor) control rooms . But since
> lighting was often by fluorescent tubes , their UV radiation caused the
> tubing to deteriorate and crack.
> When it became a common problem an American company Samuel Moore then
> produced black tubing with coloured stripes, solving the UV triggered
> problem.
>
> Frank GM0CSZ / KN6WH
>

1633. Re: Smith Chart inventor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-28 23:55:19 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <QZqdnXQtTcf4Ns_ZRVn-gg@comcast.com>
Source record: 60425

N7QR wrote:

> Philip H. Smith, Fellow IEEE, was born 101 years ago this Saturday and died
> in 1987. Delevoped the Smith Chart for matching transmission lines (also
> developed the cloverleaf antenna.)
>
>

I fell in love with his chart in my college days.

For my transmission lines courses we were offered the option of using the chart or doing the math. If we chose the chart, the only credit was for a correct answer. If we chose the math, we could get partial credit based on proper process. The exam was scheduled for 3 hours. Two of us left the exam room in 20 minutes with perfect scores on the final exam.

That was 48 years ago. I wish I could remember everything I've forgotten. Heck! I wish I could remember 10% of it!!!!

1634. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 00:00:29 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1146268829.593510.301580@j73g2000cwa.googlegroups.com>
Source record: 60326

I'm going with Drs. Corum on this one. Solve equation 28 for tau, get beta from equation 4. The phase velocity along the axis of the coil is omega/beta.

The velocity factor in question is that phase velocity over the speed of light in a vacuum.

The coil modes are surface waves in a weird coordinate system. Note that the paper is very explicit in saying they're not TEM.

Throw equation 28 into Mathematica or Matlab or something and solve for tau. The cases given after equation 28 with all the limitations appear(ed?) to be a point of some contention, but equation 28 seems *only* to have the limitation of circumferential symmetry of the surface waves on the coil.

At the junctions between the wire and the coil, there is a transfer of energy between the surface wave modes on the coil and the usual antenna mode (I guess it's TEM?)

The coil is like G-line in that it guides surface waves, but the coil modes are modes specific to the helical geometry; the G-line surface waves are specific to the straight-wire geometry.

There is a mode on the helix where the waves go round and round the turns, but the example given is a traveling wave tube for microwave amplification, and it seems to me that there are a few turns over a few inches for *microwave* frequencies.

I am not one to argue with a solution to Maxwell's equations.

-Dan

1635. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 00:08:51 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1146269331.884979.12810@j73g2000cwa.googlegroups.com>
Source record: 60327

I need to proofread more. "At the junctions between the *ANTENNA* wire and the *LOADING* coil there is a transfer of energy..." would have been a bit clearer. Also very possibly inaccurate. The energy transfer may happen somewhere else in space as the fields around the antenna wire do not have the exponentially decaying radial behavior that the coil surface wave fields have.

I expect, though, that the current at the antenna wire/coil junction is what does the exciting of the surface wave modes on the helix.

Also should have said "a few turns over a few inches for a *TWT OPERATING* at microwave frequencies".

-Dan

1636. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 00:47:23 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146271643.734737.155940@j73g2000cwa.googlegroups.com>
Source record: 60328
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 28 Apr 2006 08:29:38 -0700, "an old freind"
> <kb9rqz-ars@hotmail.com> wrote:
>
> >

> >> You said a mouthful. Oh and I agree with you. It just aint natural!
> >funny it occours outside of man and outside the primates in nature all
> >the time
>
> So you are as stupid as a monkey or a dog?

no you point?

it looks like you are here to push your religous agenda and nothing to
with radio

1637. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 02:06:48 UTC
From: Bob <warthog9@pacbell.net>
Message-ID: <YSz4g.70849$H71.10699@newssvr13.news.prodigy.com>
Source record: 60329

Not counting the potential tuner problems you mention, my experience is
a 102ï¿½ whip with no loading will work ok on 10-20m, but on 40m and below
it sucks.
Bob

Buck wrote:
> I have a TenTec 247 manual antenna tuner. I am thinking about
> installing a roof-mount over the space between the driver and
> passenger in the front of my mini-van and hanging my TT tuner below
> it. I understand the combination with automatic tuners works well,
> but I have been warned against using the TT to tune short antennas on
> low frequencies. Of course, this was in reference to dipoles and base
> antennas. The problem is reportedly that the loading coil will heat
> up and be damaged and have to be re-wound.
>
> I have about a 2 foot extension that I may also use to extend the
> antenna a little.
>
> I don't have the money to spend on auto-tuners and I have everything
> but the whip and mount for the antenna configuration I just described.
>
> comments?
>
>

1638. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 02:24:17 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <1255jifnpo0fnb2@corp.supernews.com>
Source record: 60330
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Fred" <freddyr1928@ll.net> wrote in message
news:cqc5525d7mu7ahh5nv0q89grsi151lcqr3@4ax.com...
> On 28 Apr 2006 08:29:38 -0700, "an old freind"
> <kb9rqz-ars@hotmail.com> wrote:
>
>>
>>Tony Roma wrote:
>>> >On Wed, 19 Apr 2006 20:54:39 GMT, Skirt Chaser <my.em@il.dont.work>
>>> >wrote:
>>
>>> You said a mouthful. Oh and I agree with you. It just aint natural!
>>funny it occours outside of man and outside the primates in nature all
>>the time
>
> So you are as stupid as a monkey or a dog?

Give the monkey and the dog some credit, they are WAY more intelligent than
Markie-tard

1639. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 02:46:07 UTC
From: Buck <not@this.time>
Message-ID: <pqk552tjt1erp3vusi6cg09tf3iqkv9gdd@4ax.com>
Source record: 60331

On 28 Apr 2006 08:29:58 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

>If there is a heating problem with a short dipole, there will be a
>heating problem with a 102" whip.
>
>Some automatic tuners may do OK with the short whip. I think SGC does
>this, but if it works and is reasonably low-loss it is because the
>tuner is designed to do well with a short whip.
>
>One way to make the tuner match a short whip better on low frequencies
>is to include a loading coil, in this case, at the base, to bring the
>antenna into resonance. The impedance of the antenna will then be a low
>resistive impedance, rather than a low resistive part and lots of
>capacitative reactance. The tuner will handle this better than the
>very short whip without a coil.
>
>It seems to me that a short-whip automatic tuner should have an
>inductance in series with the antenna input, maybe a LCL tee network.
>I don't know what sort of topology the T-T 247 has but I don't think
>anyone is building an LCL tee manual antenna tuner. It'd be easy to do
>in an auto tuner though.
>
>Anyone know the internals of the SGC short whip tuner (the one with the
>whip mounted to it)?
>
>Dan,
>N3OX

I believe my tuner is CLC, it has two caps and the inductor.

--
73 for now
Buck
N4PGW

1640. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 02:57:40 UTC
From: Buck <not@this.time>
Message-ID: <suk552hrgki9pkg5ldd4jvk8d8m432b13a@4ax.com>
Source record: 60332

On Fri, 28 Apr 2006 10:52:54 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>You must have some idea of what band you are going to use it on, what
>is it?
>
>73's
>Richard Clark, KB7QHC

Thanks, Richard for the comments. I would like to use it for 75-6
meters as I am not worried about 160 meters. I would like to use it
on 75 meters, as it is the band most likely to meet the coverage I am
interested in, but also to operate all bands as I would like not to
change antennas all the time. I have loaded the 20 meter and 40 meter
antennas with it to see how it works on other bands, but they really
suck!. I don't know if it is the way they are wound or what, but
tuning the 20 for six works well, but not with other bands. Going
lower doesn't help.

As for the mobile vs base antennas, there may be some difference. The
problem occurs when using a quarter wave or shorter dipole. However,
a quarter wave vertical is a match! This is part of my questioning.
Also, the fact that the tuner will be virtually at the antenna rather
than the coax, may make some difference, although, technically, I
think the coax would lower the reflected power to the tuner.

The theory i was hearing was that the loading coil takes all the
missing length of antenna and heats up. I can't imagine auto-tuners
having as large a coil as this manual tuner. (It uses a wire wrapped
around a toroid of some sort.) I imagine an autotuner uses much
smaller inductors tied together thru relays.

I am trying to think of a type thurmometer that I could use that
wouldn't interact with the tuner to see if it heats up.

I will probably test the antenna this weekend if I can get the parts
and time....

--
73 for now
Buck
N4PGW

1641. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 03:07:32 UTC
From: Buck <not@this.time>
Message-ID: <92m552p0gku2map37b381iomes9r87b58u@4ax.com>
Source record: 60333

On Sat, 29 Apr 2006 02:06:48 GMT, Bob <warthog9@pacbell.net> wrote:

>Not counting the potential tuner problems you mention, my experience is
>a 102ï¿½ whip with no loading will work ok on 10-20m, but on 40m and below
>it sucks.
>Bob
>
with no tuning? you get acceptable match to your rig without a tuner,
would you explain more?

thanks
Buck
--
73 for now
Buck
N4PGW

1642. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 03:21:42 UTC
From: Buck <not@this.time>
Message-ID: <45m55219u61f3rj7m46pp5lhuvpmc7nn49@4ax.com>
Source record: 60334

On Sat, 29 Apr 2006 02:06:48 GMT, Bob <warthog9@pacbell.net> wrote:

>Not counting the potential tuner problems you mention, my experience is
>a 102ï¿½ whip with no loading will work ok on 10-20m, but on 40m and below
>it sucks.
>Bob

I would expect it to suck on the lower bands. I am trying to figure out some form of loading that will be cheap and simple to use. I have a 40 meter whip and I guess I could add the 102 to the top for a stinger, but that would make for a long and weak (physically) antenna.

75 mobile sucks under the best of conditions. That much I know. I may have to settle for a 75/80 meter antenna option. I am trying to think of a way to add a base coil that may allow me to tune lower bands more easily without upsetting the higher bands. I don't want to tune the coil itself every time I change bands, but I wouldn't mind bypassing the coil on those times I would rather not tune 80/40. I am very interested in operating 60 meters mobile on a regular basis as well as 20 and up.

Buck

--
73 for now
Buck
N4PGW

1643. Re: Lightning suppressor?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 03:41:56 UTC
From: Sum Ting Wong <sumtingwong@privacy.net>
Message-ID: <kln5525ae9kj9vsnto1n0ts56o37v2slqs@4ax.com>
Source record: 60335

On 27 Apr 2006 17:24:55 -0500, tclay@qmc.ph.msstate.edu wrote:

>>I would like to put an arrestor in the line but recommendations are
>>sketchy even from those who sell them. I assume it would be most
>>effective at the base of the tower on the ground rod. The drawing in
>>the ARRL Antenna Handbook shows the arrestor on a common station
>>ground.
>
>Once you have more than one or two antennas, disconnecting the feedlines
>and throwing them out the window gets to be a real pain.
>
>you probably want to
>
>a) ground the shield of the coax at the base of the tower, and
>b) have a lightning arrestor where the coax enters the house or at
>your shack, and
>c) connect the grounds of the tower, shack, and power co. together
>
>I ground the coax shields at the base of my towers, run the coax
>underground to the house, and then have lightning arrestors at the
>house before the coax goes up to the shack on the 2nd story.
>
>Tor
>N4OGW

Don't forget the control wires for your antenna rotator. Seems like
all your antennas and control cable(s) entering the shack through
arrestors on grounded metal plate is the recommended method these
days.

You can find some good poop on lightning protection here:

http://www.iceradioproducts.com/thorshammer.htm

http://www.iceradioproducts.com/10.html

S.T.W.

1644. May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 03:49:18 UTC
From: stananger <stananger@********.***>
Message-ID: <EuCdncdjBYGsf8_ZRVn-hA@hawaiiantel.net>
Source record: 60336

May 1st 2006, Civil War Begins

On May 1st 2006 The "Great American Boycott" also known as the "Day without immigrants" is scheduled to occur. Participant's stated goals are a general strike, No Work, No School, No Sales, and No Buying. These people want to shut down individual cities, all across the nation, thereby impacting the country as a whole.
Make no mistake about it, this is not just simple protesting, protesting with the goal of causing financial harm is Economic Terrorism plain and simple - and those people who participate are economic terrorists.
By shutting down certain cities, or even portions of cities, these protestors will be :
Keeping children out of school,
Hampering the abilities of local law enforcement to enforce the law,
Hampering the abilities of first responders to respond to car accidents, fires, people having heart attacks, and hampering their ability to transport them to the hospital.
Hampering the abilities of local mass transit systems to operate properly.
Causing financial harm to local businesses iregardless of whether or not those businesses have harmed them, resulting in a nationwide economic impact.
Advocating the breaking of our laws by demanding, yes demanding, that illegal immigrants be given amnesty.

terï¿½rorï¿½ism -"The unlawful use or threatened use of force or violence by a person or an organized group against people or property with the intention of intimidating or coercing societies or governments, often for ideological or political reasons." - American Heritageï¿½ Dictionary of the English Language, Fourth Edition
How can you fight back?
Ensure that your children go to school, and stay there on this day.
Purposely go and buy products and services in those cities affected by the protestors - gas up your car, go see a movie, go grocery shopping, buy a little more than you would have any other day. Counter their 'protest' with a positive economic impact in those areas affected.
Perhaps you might also consider making a donation to those organizations seeking to secure our borders on this day as well. Show these terrorists that you can and will fight back!
While the current situation is one of mass irresponsible action, causing financial harm across the nation, it will inevitably escalate into violence and deaths if these sorts of activities continue.
Does this constitute a civil war? Perhaps not yet, but its clearly heading in that direction, this may just be the first battle.

1645. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 04:06:24 UTC
From: richardharrison@webtv.net
Message-ID: <17735-4452E640-132@storefull-3251.bay.webtv.net>
Source record: 60337

Dan, N3OX wrote:
"Also should have said "a few turns over a few inches for a "TWT OPERATING" at microwave frequencies".

That`s interesting. John D. Kraus invented the axial-mode helix antenna after attending a lecture on traveling wave tubes given by a famous scientist visiting Ohio tate University. Kraus asked the visitor if he thought the helix could be used as an antenna. The visitor said no, so Kraus went home, wound seven turns one wavelength in circumference and discovered it made a sharp beam off the open end when he used a ground plane across the driven end. The story appears on page 222 of Hraus` 3rd edition of "Antennas".

Lenkurt described operation of the traveling wave tube in its August 1965 edition of the "Demodulator". Here is an excerpt:
"The signal to be amplified by the tube is coupled into the gun end of the helix. This RF signal travels as a surface wave around the turns of the helix, toward the collector, at about the velocity of light. The forward or axial velocity of the signal is slower, of course, because of the pitch and diameter of the helix. This forward movement of the wave is analogous to the travel of a finely threaded screw where many turns are required to drive it into position. The signal wave generates an axial electric field which travels with it along the longitudinal axis of the helix. This alternating electric field interacts or velocity modulates the electrons in the beam."

Terman`s description in the 1955 edition of "Electronic and Radio Engineering" starts on page 678 and is very similar to Lenkurt`s. i`d bet that it is more than coincidental.

Kraus says of his new helical antenna on page 223 of his 3rd edition of "Antennas":
"At a low frequency (helix circumference about lambda/2) there was almost a pure standing wave (VSWR goes to infinity) all along the helix (outgoing and reflected waves nearly equal) (Fig. 8-3a)--."

Surely an antenna loading coil resembles Kraus` low-frequency helix. It has an open-circuit whip producing a reflection into one end. The circumference is well below 1/2-wavelength, giving a current distribution such as shown in Fig. 8-3a for a frequency below the axial mode of operation.

Fig. 8-3c shows uniform outgoing and reflected currents over the middle section of the helix. Kraus` figures were produced from actual measurements.

Best regards, Richard Harrison, KB5WZI

1646. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 05:07:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <otr552huvn137b2go73ekg7ab2hch42kp0@4ax.com>
Source record: 60338

On Fri, 28 Apr 2006 22:57:40 -0400, Buck <not@this.time> wrote:
>I would like to use it for 75-6
>meters as I am not worried about 160 meters. I would like to use it
>on 75 meters, as it is the band most likely to meet the coverage I am
>interested in,

Hi Buck,

All reports of short, mobile antennas on 80M generally cry crippled.
That is, unless, they are augmented by center loads under top hats a
dozen feet high or more. Even then, hardly remarkable unless you can
stand to be down 2 S-Units out the gate. For some, this knowledge is
a killer. For others who ignore it, they simply work those who can
hear them.

>but also to operate all bands as I would like not to
>change antennas all the time. I have loaded the 20 meter and 40 meter
>antennas with it to see how it works on other bands, but they really
>suck!.

Well, again, you are short on details. These two antennas (I presume
you have introduced two more to the discussion) may be air cooled
resistors for all their qualities you suggest. You might find an
object lesson here.

>I don't know if it is the way they are wound or what, but
>tuning the 20 for six works well, but not with other bands. Going
>lower doesn't help.

Barring details....

>As for the mobile vs base antennas, there may be some difference. The
>problem occurs when using a quarter wave or shorter dipole.

Mobile quarterwave dipole?

>However,
>a quarter wave vertical is a match! This is part of my questioning.

Aside from this being natural, what could the question be?

>Also, the fact that the tuner will be virtually at the antenna rather
>than the coax, may make some difference, although, technically, I
>think the coax would lower the reflected power to the tuner.

Many antennas are designed with a match external to them, but quite
close by. Why would this be detrimental? Even more, many antennas
are built with the match as part of them. They go by many names,

Gamma being one. Certainly nothing is lost in their use.

>The theory i was hearing was that the loading coil takes all the
>missing length of antenna and heats up.

Dare I say you can't trust everything you hear (read here)?

Myself, I taught RF communications in the Navy and had no trouble whatever with the concept that a coil replaces the electrical length missing in a short antenna. However, the Navy was never a slave to fashion nor strict interpretation in this matter, and it was enough to observe this quid-pro-quo as symbolic, and not literal.

> I can't imagine auto-tuners
>having as large a coil as this manual tuner. (It uses a wire wrapped
>around a toroid of some sort.) I imagine an autotuner uses much
>smaller inductors tied together thru relays.

Indeed.

>I am trying to think of a type thurmometer that I could use that
>wouldn't interact with the tuner to see if it heats up.

Yuri might suggest aquarium thermometers (Liquid Crystal) - but you would have to make sure the entire surface fit the entire strip (or versa vice). If you have a very old digital camera, then they were sensitive to IR. You could take a picture in the dark and resolve hot spots.

>I will probably test the antenna this weekend if I can get the parts
>and time....

Further reports would be interesting.

73's
Richard Clark, KB7QHC

1647. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 06:01:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12560ajs2oc286f@corp.supernews.com>
Source record: 60339

Richard Harrison wrote:
> . . .
> Surely an antenna loading coil resembles Kraus` low-frequency helix. It
> has an open-circuit whip producing a reflection into one end. The
> circumference is well below 1/2-wavelength, giving a current
> distribution such as shown in Fig. 8-3a for a frequency below the axial
> mode of operation.
> . . .

So does this mean if we put a current into one end of the inductor I described, it'll take about 40 ns for current to reach the other end? So we should expect a phase delay in the current of 90 degrees at 6.15 MHz, or about 15 degrees at 1 MHz, from one end to the other?

What good are all these books if the information can't be used to solve a simple problem?

Roy Lewallen, W7EL

1648. question about caps in tuning loops ..

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 07:43:09 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-7C0837.09430929042006@news.stben.net>
Source record: 60340

when the metal plates move and more surface is used/covered by the cap,
is the capacitance higherb (farads) ??

I see that with loop ant, the more the plates cover each other, the
lower the tuned freq is ...

So with a high cap, you could make an ant with less turns of wire ...

Sometimes I find a large cap (1 F) at flea markets, for 1 euro/$ or so.

They cost 100 or so new. Would they make sense ??

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

1649. Re: Coax Bulkhead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 10:48:46 UTC
From: Alien <no@nospam.org>
Message-ID: <no-8EC202.05482829042006@news-rdr-03.rdc-kc.rr.com>
Source record: 60341

In article <tqC3g.1800$%x.1050@tornado.tampabay.rr.com>,
"west" <westley@tampabay.rr.com> wrote:

> Is there a place on the net, in a book, etc. that I can see examples &
> diagrams of a coax bulkhead? My house sits on a slab and I want to run about
> 4 or 5 coax cables, rotor cable, AC & DC source all going from the shack to
> my tower. In Florida lightning is a major concern so the bulkhead will have
> to have coax & other type of arrestors. All this is grounded to a copper
> ground rod & the cables, of course, to my shack. I would like this outside
> "box" nicely & neatly dressed & labeled so it's easy to disconnect & not an
> eye sore. I searched the Ham books and many Internet sights to no avail.
> Anybody? Thank you.
>
> west, AF4GC

Checkout I.C.E here: http://www.iceradioproducts.com/

They have just what you're looking for. I don't work for them, but I
have quite a few of their products. They build good stuff.

1650. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 11:55:47 UTC
From: Buck <not@this.time>
Message-ID: <rff652947oe6s4ss4l1tkhdl95hleqo9i2@4ax.com>
Source record: 60342

On Fri, 28 Apr 2006 22:07:00 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Fri, 28 Apr 2006 22:57:40 -0400, Buck <not@this.time> wrote:
>>I would like to use it for 75-6
>>meters as I am not worried about 160 meters. I would like to use it
>>on 75 meters, as it is the band most likely to meet the coverage I am
>>interested in,
>
>Hi Buck,
>
>All reports of short, mobile antennas on 80M generally cry crippled.
>That is, unless, they are augmented by center loads under top hats a
>dozen feet high or more. Even then, hardly remarkable unless you can
>stand to be down 2 S-Units out the gate. For some, this knowledge is
>a killer. For others who ignore it, they simply work those who can
>hear them.

I realize this. I have used a Hustler on 75 before. I was definitely
a weak signal station. I can only imagine that a tuned whip would
generate similar results, or more likely, poorer results.
>
>>but also to operate all bands as I would like not to
>>change antennas all the time. I have loaded the 20 meter and 40 meter
>>antennas with it to see how it works on other bands, but they really
>>suck!.
>
>Well, again, you are short on details. These two antennas (I presume
>you have introduced two more to the discussion) may be air cooled
>resistors for all their qualities you suggest. You might find an
>object lesson here.

There are a total of four antennas I have mentioned in here for
comparison sake. The Hustler, just mentioned above, the 102 whip with
a possible 2 foot extension, and two Antenna Specialists (AS) (look
exactly like HamSticks). I haven't had the Hustler for over a decade.
I will introduce another antenna in this message later.

The AS antennas are thin fiberglass poles with long stingers on the
top. The fiberglass poles, of course, have copper wound around them
from bottom to top, above which is a whip (stinger) about the same
length as the pole. The hustler was a center loaded trap that was
several inches in diameter and about 10-12 inches tall (the trap part)
with a stinger on top. (You are probably familiar with the Hustler.)
I also have a Volvo brand CB whip. It is a thin fiberglass whip

similar to the bottom portions of the AS antennas, but it does not have a stinger. Like the AS antennas, the fiberglass has copper wire wound from bottom to top with the top tightly wound and the bottom section loosely wound. There is no stinger on top of the CB antenna.

I previously did a little experimenting with the two AS antennas and the Volvo CB antenna (I don't have the 102 whip yet.) I used the tuner to compare receive signals on various active bands. the results weren't very good. Basically, each antenna performed best on the frequencies for which they were designed (no big surprise here) but they performed terribly on any other band. In fact, they were not even acceptable for use on other bands. The signal strength on 20 meters, for example went from s-9 on the 20 AS antenna to less than s-2 on the other antennas. I know others who have used the 102 steel whip/auto-tuner combination that I have talked to never complained that they only received s-2 signals with the system. Therefore, my theory is that the winding of the coil on the fiberglass poles is adversely affecting the radiation on out-of-band operation. I am hoping that the steel whip, with or without the extension, will perform better on all bands than any of these antennas tested. I realize it is a compromise but the loss of an s-unit or two in exchange for all band coverage for my mobile without having to switch antennas or get out of the car and change taps is an acceptable trade-off.

Remember, too, that in the original post, money is a big issue. The purchase of a screwdriver (the best known mobile antenna design for all band coverage) is not an option at this time. My theory is that I should be able to mimic the 102 whip/auto-tuner results using a manual tuner. My question is whether or not the tuner itself can hold up to the task without being damaged.

>
>>I don't know if it is the way they are wound or what, but
>>tuning the 20 for six works well, but not with other bands. Going
>>lower doesn't help.
>
>Barring details....

I think I addressed that above, the fiberglass poles are wrapped tightly at the top and then loosely to the bottom, a stinger extends from the tops of the AS antennas, and the Volvo antenna doesn't have a stinger.

>
>>As for the mobile vs base antennas, there may be some difference. The
>>problem occurs when using a quarter wave or shorter dipole.
>
>Mobile quarterwave dipole?
base. The suggestion I was given was not to use the antenna tuner on a 20 meter dipole to tune a 40 meter frequency. This would be a 1/4 wave dipole on 40 meters. I don't know what the impedance of such an

antenna would be, but I do know that a 1/4 wave vertical is a
reasonable match. We never discussed the use of the tuner in the
mobile.

>
>>However,
>>a quarter wave vertical is a match! This is part of my questioning.
>
>Aside from this being natural, what could the question be?
>
>>Also, the fact that the tuner will be virtually at the antenna rather
>>than the coax, may make some difference, although, technically, I
>>think the coax would lower the reflected power to the tuner.
>
>Many antennas are designed with a match external to them, but quite
>close by. Why would this be detrimental? Even more, many antennas
>are built with the match as part of them. They go by many names,
>Gamma being one. Certainly nothing is lost in their use.
>
>>The theory i was hearing was that the loading coil takes all the
>>missing length of antenna and heats up.

I should have clarified that this statement. The internal inductor of
the tuner makes up the missing length of the antenna and heats up
which can cause damage to the antenna tuner's inductor. This is how
it was presented to me, or how I understood it. Again, the discussion
was using the tuner to tune short dipoles to transmit on lower
frequencies.

>
>Dare I say you can't trust everything you hear (read here)?
>
>Myself, I taught RF communications in the Navy and had no trouble
>whatever with the concept that a coil replaces the electrical length
>missing in a short antenna. However, the Navy was never a slave to
>fashion nor strict interpretation in this matter, and it was enough to
>observe this quid-pro-quo as symbolic, and not literal.
>
>> I can't imagine auto-tuners
>>having as large a coil as this manual tuner. (It uses a wire wrapped
>>around a toroid of some sort.) I imagine an autotuner uses much
>>smaller inductors tied together thru relays.
>
>Indeed.
>
>>I am trying to think of a type thurmometer that I could use that
>>wouldn't interact with the tuner to see if it heats up.
>
>Yuri might suggest aquarium thermometers (Liquid Crystal) - but you
>would have to make sure the entire surface fit the entire strip (or
>versa vice). If you have a very old digital camera, then they were

>sensitive to IR. You could take a picture in the dark and resolve hot
>spots.
>
>>I will probably test the antenna this weekend if I can get the parts
>>and time....
>
>Further reports would be interesting.
>

I have been scheduled to work this weekend. I hope to be off Sunday,
If I can, I will try testing the whip idea using the side mount on the
van and if it appears to be promising, I will drill the holes in the
roof to mount the whip there near the radio and tuner.

>73's
>Richard Clark, KB7QHC
73 for now

--
73 for now
Buck
N4PGW

1651. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 12:04:34 UTC
From: Buck <not@this.time>
Message-ID: <43l652958kmtlj60lgmtsi3ahgfs6snt5m@4ax.com>
Source record: 60343

On Fri, 28 Apr 2006 23:07:32 -0400, Buck <not@this.time> wrote:

>On Sat, 29 Apr 2006 02:06:48 GMT, Bob <warthog9@pacbell.net> wrote:
>
>>Not counting the potential tuner problems you mention, my experience is
>>a 102ï¿½ whip with no loading will work ok on 10-20m, but on 40m and below
>>it sucks.
>>Bob
>>
>with no tuning? you get acceptable match to your rig without a tuner,
>would you explain more?
>
>thanks
>Buck

I just re-read your statement. Are you saying the whip without a
loading coil used thru a tuner? My first thoughts were you meant
without a tuner.

I expect that 40 and below will be a bit poor. I hope to find a
compromise of sorts where I can add a loading coil, but only change it
when I want to operate 40-80 meters, sort of a switch between the
higher and lower bands as opposed to setting it for each band. The
alternative may be to have two antennas, one for the lower bands, set
as needed per band, and one for the upper bands that only needs tuning
with the tuner. If I am lucky, I may be able to have one with a
loading coil that tunes all the lower bands relatively efficiently and
the whip for the upper bands. I can deal with two antennas, I have a
switch but my problem right now is I have separate 40, 20, 11, 10, and
6 meter antennas. If I want to change bands, I have to replace each
antenna. Likewise, if I want to add a band, I have to buy more
antennas. I just want to simplify my operation for when I am mobile.
I have a 135 foot dipole with 300 ohm feed that I can toss up in the
trees for portable operation when I want to be efficient or for
emergency operations, but for moving, I don't want to pull off the
highway and get out of my car to change antennas every time I want to
change bands.

Thanks for the input.

Buck
--
73 for now
Buck
N4PGW

1652. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 12:06:08 UTC
From: Buck <not@this.time>
Message-ID: <mkl652l718s5bjhq7pllgse59rejn7uj1q@4ax.com>
Source record: 60344

On Fri, 28 Apr 2006 17:49:18 -1000, stananger <
stananger@********.***> wrote:

>May 1st 2006, Civil War Begins
>
>On May 1st 2006 The "Great American Boycott" also known as the "Day without
>immigrants" is scheduled to occur. Participant's stated goals are a general
>strike, No Work, No School, No Sales, and No Buying. These people want to
>shut down individual cities, all across the nation, thereby impacting the
>country as a whole.
>Make no mistake about it, this is not just simple protesting, protesting
>with the goal of causing financial harm is Economic Terrorism plain and
>simple - and those people who participate are economic terrorists.
>By shutting down certain cities, or even portions of cities, these
>protestors will be :
> Keeping children out of school,
> Hampering the abilities of local law enforcement to enforce the law,
> Hampering the abilities of first responders to respond to car accidents,
>fires, people having heart attacks, and hampering their ability to
>transport them to the hospital.
> Hampering the abilities of local mass transit systems to operate properly.
> Causing financial harm to local businesses iregardless of whether or not
>those businesses have harmed them, resulting in a nationwide economic
>impact.
> Advocating the breaking of our laws by demanding, yes demanding, that
>illegal immigrants be given amnesty.
>
>
> terï¿½rorï¿½ism -"The unlawful use or threatened use of force or violence by a
>person or an organized group against people or property with the intention
>of intimidating or coercing societies or governments, often for ideological
>or political reasons." - American Heritageï¿½ Dictionary of the English
>Language, Fourth Edition
>How can you fight back?
>Ensure that your children go to school, and stay there on this day.
> Purposely go and buy products and services in those cities affected by the
>protestors - gas up your car, go see a movie, go grocery shopping, buy a
>little more than you would have any other day. Counter their 'protest' with
>a positive economic impact in those areas affected.
> Perhaps you might also consider making a donation to those organizations
>seeking to secure our borders on this day as well. Show these terrorists
>that you can and will fight back!
>While the current situation is one of mass irresponsible action, causing
>financial harm across the nation, it will inevitably escalate into violence

>and deaths if these sorts of activities continue.
>Does this constitute a civil war? Perhaps not yet, but its clearly heading
>in that direction, this may just be the first battle.

and what band and mode will this protest take place?

--
73 for now
Buck
N4PGW

1653. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 12:43:36 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <osmdncZfd5jrws7ZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 60345

stananger wrote:

> May 1st 2006, Civil War Begins
>
> On May 1st 2006 The "Great American Boycott" also known as the "Day without
> immigrants" is scheduled to occur. Participant's stated goals are a general
> strike, No Work, No School, No Sales, and No Buying. These people want to
> shut down individual cities, all across the nation, thereby impacting the
> country as a whole.

SNIPPED
>
> terï¿½rorï¿½ism -"The unlawful use or threatened use of force or violence by a
> person or an organized group against people or property with the intention
> of intimidating or coercing societies or governments, often for ideological
> or political reasons." - American Heritageï¿½ Dictionary of the English
> Language, Fourth Edition

SNIPPED

It is not terrorism per your quoted definition: "terï¿½rorï¿½ism -"The
UNLAWFUL [emphasis added] use or threatened use of force or violence ... "

I don't see any UNLAWFUL activity here. If you want a day off you take a
day off. If ten people want a day off, they take a day off. If 100
people want a day off, they take a day off. ...

The opening words of the USA Constitution are extremely important. "We
the PEOPLE ..." Note: it does not say Citizens.

The First Amendment to the USA Constitution states:
"Amendment I: Congress shall make no law respecting an establishment of
religion, or prohibiting the free exercise thereof; or abridging the
freedom of speech, or of the press; or the right of the people peaceably
to assemble, and to petition the government for a redress of grievances."

The protest is fully compliant with " freedom of speech", "peaceably to
assemble' and to "redress of grievances"

The Constitutional Rights you demand for yourself MUST be Rights for
those with whom you disagree.

1654. Re: question about caps in tuning loops ..

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 13:23:38 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <X9idnZmdHfdK9c7ZnZ2dnUVZ_tmdnZ2d@comcast.com>
Source record: 60346

For transmitting purposes there is a high voltage across that capacitor.
I have a friend who uses 10,000 volts rated capacitors in a loop for 50
watts.

The 1 farad capacitors are generally very low voltage.

switcher wrote:

> when the metal plates move and more surface is used/covered by the cap,
> is the capacitance higherb (farads) ??
>
> I see that with loop ant, the more the plates cover each other, the
> lower the tuned freq is ...
>
> So with a high cap, you could make an ant with less turns of wire ...
>
> Sometimes I find a large cap (1 F) at flea markets, for 1 euro/$ or so.
>
> They cost 100 or so new. Would they make sense ??
>

1655. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 14:03:17 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <FmK4g.10060$Lm5.4934@newssvr12.news.prodigy.com>
Source record: 60347

Roy Lewallen wrote:
> So does this mean if we put a current into one end of the inductor I
> described, it'll take about 40 ns for current to reach the other end? So
> we should expect a phase delay in the current of 90 degrees at 6.15 MHz,
> or about 15 degrees at 1 MHz, from one end to the other?

Equation (32) at http://www.ttr.com/TELSIKS2001-MASTER-1.pdf
answers that question. The VF is about double the "round and
round the coil" calculated value and the VF changes with
frequency.
--
73, Cecil http://www.qsl.net/w5dxp

1656. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 14:19:04 UTC
From: w8ji@akorn.net
Message-ID: <1146320344.271655.25720@y43g2000cwc.googlegroups.com>
Source record: 60348

Cecil Moore wrote:
> <w8ji@akorn.net> wrote:
> > Hanging his hat on Cecil, but now Cecil is getting the picture and
> > yanking the rug out from under Yuri and his "missing electrical degree
> > cutrrent taper and phase shift theory".
>
> Is the purpose of this newsgroup to smear individuals or to
> get to the technical facts?

I don't know. You and Yuri seem to be playing that game as much or more
than anyone else. It's tough for both sides to behave and anyone to
learn anything when all this strange stuff goes on, but this thread (in
various forms) is very similar to the famous Fractenna threads.

>Nobody is 100% correct 100% of
> the time.

....and that obviously includes you as well as the rest of us. The key
is to speak like friends and be honest rather than make this stuff
into a long "Fractenna" thread.

>The coil still occupies tens of degrees and still
> suffers a current taper because of that delay.

The coil does NOT have to occupy tens of degrees nor does it have to
provide any current phase delay from end to end. It does have to have
SOME delay and some current taper since it occupies space, but it can
be so small we can't reliably measure it.

The phase delay and current taper is tied to the load impedance on the
open end of the coil and the construction of the coil, not to the
electrical degrees. It appears you know that now.

> > It only took three or four years, but at least that's better than
> > Fractenna. :-)

> I wouldn't laugh just yet, Tom. There's plenty of misconceptions
> on both sides.

My opinion is Lewallen and maybe a dozen others have a good handle on
how it works. It appears you have gradually came more to center also,
but I'm not quite positive how far. At least you no longer apperar to
be saying the coil represents missing electrical degrees.

> The delay through the loading coil is still tens of
> degrees, not anywhere close to the near-zero degrees that you have
> been asserting for years.

Be careful there. I have NOT been asserting that for years. My initial assertions years ago was there was no delay, but that was because I considered the inductor an inductance and was speaking of an inductance. Over two or three years ago I posted this:

http://www.w8ji.com/mobile_and_loaded_antenna.htm

which explains it is a matter of stray capacitance to the outside world compared to load inmpedance terminating the coil that causes deviations from a "perfect" coil.

I also measured antenna current and posted the results at:

http://www.w8ji.com/mobile_antenna_current_measurements_at_w8ji.htm

>The delay through a typical 75m bugcatcher
> coil appears to be about ~35 degrees with ~11 degrees of stinger.
> The "missing" ~44 degrees occurs at the impedance discontinuity
> between the coil and the stinger just as it does in my 450/50 ohm
> stub example.

I'd bet money I can build a coil that has very low phase delay. I'd also bet I could build one with larger phase delay **at the same point and frequency in the same system**.

The problem is one of the stray capaciatnce from the coil to the outside world compared to terminating impedance of the coil.

> The 3 nS delay measured by you and the undetectable delay
> measured by W7EL were invalid measurements of delay.

So you say. We have only your opinion or view on that, and that dosagrees with other people's opinions. You are not the final word.

> Standing wave current suffers zero delay all along a 1/2WL
> dipole whether it be in a wire or in a coil. The delay through a
> typical mobile loading coil on 4 MHz appears to be about 25 nS
> about half of what one would get in a straight wire equal to the
> wire used in the coil.

Again it depends on the form factor of the coil. By altering the coil with no other changes it can be made to vary quite a bit.

73 Tom

1657. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 14:19:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <VBK4g.10063$Lm5.380@newssvr12.news.prodigy.com>
Source record: 60349

Buck wrote:
> I have used a Hustler on 75 before. I was definitely
> a weak signal station. I can only imagine that a tuned whip would
> generate similar results, or more likely, poorer results.

Following are the summarized normalized combined results
of three 75m mobile antenna shootouts held in California
during the 1980's.

0 dB - (Reference) Bugcatcher or Screwdriver with large top hat

-2 dB - Bugcatcher or Screwdriver with no top hat

-5 dB - 8.5' whip with bugcatcher base loading coil

-6 dB - Bugcatcher with Stainless Steel Loading Coil

-8 dB - Hustler High Power system

-9 dB - Outbacker

-12 dB - Hamstick

-12 dB - 11.5' whip with SGC-230 autotuner

-14 dB - 8.5' whip with SGC-230 autotuner (estimated, not measured)
--
73, Cecil http://www.qsl.net/w5dxp

1658. Re: question about caps in tuning loops ..

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 14:38:14 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146321494.777153.111270@y43g2000cwc.googlegroups.com>
Source record: 60350

Not only what Dave wrote (that the voltage is likely to be too low),
but LOTS of other things too...
-- the RF losses of such a capacitor are often terrible
-- they are almost always polarized, not intended for use with an AC
signal but only as a filter for DC (especially one you'd pick up at a
flea market!)
-- I have some 1F 5.5V caps which are not so expensive new--but they
have very high series resistance. They are intended only as system
memory backup or similar for systems in which the backup current is low
microamps.
-- with such high capacitance, the loop would be so tiny that it would
be inefficient.
-- the self-resonant frequency of the capacitor is likly lower than the
frequency you want to tune the loop to. That means at the operating
frequency, the "capacitor" would look like an inductor and not tune the
loop anyway.
-- if you can manage to keep the losses low in the loop, even with a
reasonable tuning capacitance that you might actually be able to use,
the Q may be so high that the bandwidth is unuseably low.
-- the stability over temperature and time is terrible; the loop would
not stay tuned on one frequency.

These are broad generalizations. What you really need to do is look at
a SPECIFIC design and decide what capacitance makes sense from a system
performance standpoint. Will it be sensitive enough (as a receiving
loop)? Will it be efficient enough (as a transmitting loop)? Will the
bandwidth be large enough? Then the design will tell you what
capacitance you need, and you can ask the additional question: can I
tune it--how will I vary the tuning?

On very low frequencies, I can imagine using perhaps polypropylene caps
that are designed to work in switching power supplies and have low
inductance and low effective series resistance, but probably only for
use on one fixed frequency since changing the capacitance would be such
a hassle.

Assuming you're interested in low frequency receiving loops, have you
had a look at Reg's loop program? It can help you make decisions about
how to make your loop.

Cheers,
Tom

1659. Re: Lightning suppressor?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 14:38:22 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <vlr652ha01ebdb30nvnupil9cqge20f193@4ax.com>
Source record: 60351

The low response to the question leads me to believe that many (most?)
have reached the same conclusions as I have.

That is:
Isolating the incoming antenna and control cables is the preferred
method. Providing a low impedance path to ground in the radio shack is
undesirable.

Further, adding an extra ground point in the system wherever is a
lightning no-no and introduces unknowns into the RF scheme. Especially
if one chooses to not run a 1:1 swr.

In my case the base of the tower has its own ground and is connected
to the structure lightning protection. I will continue to disconnect
and connect cables.

If an application that requires operation during electrical storms is
the norm, it becomes a different circumstance.

I will keep an open mind to the question though!
John W8CCW

On Sat, 29 Apr 2006 03:41:56 GMT, Sum Ting Wong
<sumtingwong@privacy.net> wrote:

>On 27 Apr 2006 17:24:55 -0500, tclay@qmc.ph.msstate.edu wrote:
>
>>>I would like to put an arrestor in the line but recommendations are
>>>sketchy even from those who sell them. I assume it would be most
>>>effective at the base of the tower on the ground rod. The drawing in
>>>the ARRL Antenna Handbook shows the arrestor on a common station
>>>ground.
John Ferrell W8CCW

1660. Re: Antenna RF choke questions

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 15:16:32 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <9qL4g.23626$iB2.16352@bignews4.bellsouth.net>
Source record: 60352

"Jim Higgins" <invalid@invalid.invalid> wrote in message
news:ak0832tvu0s20dnqp9ihk333a71k2s1lfv@4ax.com...
> On Tue, 04 Apr 2006 20:05:34 -0700, Richard Clark <kb7qhc@comcast.net>
> wrote:
>
>>On Wed, 05 Apr 2006 02:46:14 GMT, "AK" <nomail@aol.com> wrote:
>>
>>>Reg thinks it's the tape's lack of water sealing. I have been using some
>>>putty-like sealer on my 239s lately, but it is a mess to clean off when
>>>disconnecting and re-connecting the coax - as sometimes required.
>>
>>Hi OM,
>>
>>Lay down a layer of tape first.
>>Seal it with the sealer (much cheaper from flower shops).
>>Lay down another layer of tape.
>
>
> For the past 20 years I've used the same piece of coax running to a
> ground mounted vertical antenna. The coax runs across the top of the
> ground. The threads of the PL259/SO239 connection at the antenna are
> sealed with plumber's grease on the threads of the connector. The
> barrel of the PL259 behind the threaded sleeve is wrapped with high
> quality white vinyl tape extending about 4 inches up the coax. I
> remove the PL259 every week or so in the summer to move the coax while
> I mow the lawn. About 6 months ago I figured it was time to inspect
> things so I cut off the PL259, expecting to find corrosion requiring
> cutting the coax back to find clean shield or requiring coax
> replacement. Not so. I found clean copper shield at the cut end. The
> coax jacket wasn't at all brittle so I soldered on a new PL259,
> greased it and the SO239, and figure I'm good to go for a few more
> years.
>
> Jim Higgins, KB3PU

Same experience here, I grease eveything up with DC4 dielectric grease, not only does it keep the water out it acts like anti-sieze to make it come apert easy and wrap every thing in some good vinyl tape. One thing I have done a few times is to place some steel fishing leader under the tape. Whenever I want to open the splice just pull on the leader and it slices it open.

I still like to use heatshrink over the tape to give the tape some UV protection. I never trust heatshrik alone. I have had bad experience with this.

1661. Re: Antenna RF choke questions

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 15:22:28 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <JvL4g.23627$iB2.16653@bignews4.bellsouth.net>
Source record: 60353

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:f8-dnb2ureSnu67ZRVnygw@bt.com...
>
> "AK" <nomail@aol.com> wrote in message
> news:_7CYf.908089$xm3.833232@attbi_s21...
>> Putting together a new Cushcraft A4S (10,15, 20m) beam.
>>
>> Cushcraft recommends using an 8-turn, 6-inch diameter RG8U coax
> cable coil
>> as an RF choke for feeding the driven element. HyGain suggested the
> same
>> thing for the TH2MK3 antenna I used many years ago -- only using 12
> turns of
>> RG8 (with the 6-inch outside diameter), rather than 8 turns. I have
> a few
>> questions on the best way to do this.
>>
>> 1) Is it fair to assume that the more turns the better?
>>
>> 2) Should the coil be as close to the antenna feedpoint as possible,
> or is a
>> foot or two of straight coax between the antenna input and the coil
> OK?
>>
>> 3) Would placing the coax coil around the mast (instead of taping
> one side
>> of the coil to the mast as suggested) be a bad thing to do?
>>
>> 4) Is there a good website or book that describes the technical
> tradeoffs of
>> a coax RF choke? (I am sort of wondering if the choke can be
> skipped. Some
>> time ago, I used a W2AU balun on a multiband dipole. All it did was
> create
>> TVI when I went on 10 meters. Took the balun out, and the resonant
> points
>> didn't change. I figured that if there were antenna currents on the
> coax,
>> they would bring down the resonant frequency without the balun.
> Since that
>> didn't happen, I figured the balun wasn't helping - - but balun core
>> saturation at 30 MHz (with the KW on) was what was racking up the
> TVs.)
>>

>> 5) One last question - not having to do with the coax RF choke:
>> Cushcraft "operating tips" say to not use vinyl tape on SO239 or
> PL-239
>> connectors. Why? What problem would the tape cause??
>>
>> Thanks for any info - AK
>>
> ==
>
> A choke made of 8 turns, 6 inches diameter, has a resonant frequency
> around 21 MHz and has an impedance greater than 1000 ohms in the 20
> meter and 10 meter bands.
>
> Chokes are best wound neatly in the form of a single layer solenoid.
> Jumble wound choke coils can have funny effects.
>
> For design of chokes made with coax cable download program SELFRESS
> from website below and run immediately.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

I like to wind them on a piece of PVC pipe tie wrapping or lacing the turns
to the pipe.

1662. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 15:33:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <8HL4g.77473$dW3.15538@newssvr21.news.prodigy.com>
Source record: 60354

w8ji@akorn.net wrote:
> The coil does NOT have to occupy tens of degrees nor does it have to
> provide any current phase delay from end to end.

The coil has to obey the laws of physics. Most real-world
75m loading coils occupy tens of degrees of the mobile
antenna. Your assertion that nearly 100% of the coils link
nearly 100% of the total flux is unrealistic. The effect
of coil flux linkage approximately doubles the VF from
e.g. ~0.02 to ~0.04, not from 0.02 to near 1.0, as you
assert. A speed up by a factor of 2 is a lot more
realistic than a speed up by a factor of 50.

> The phase delay and current taper is tied to the load impedance on the
> open end of the coil and the construction of the coil, not to the
> electrical degrees.

Reference my stub example which contains *NO COIL*. There
is a *short circuit* looking into the stub.

---30 deg 450 ohm line---+---11 deg 50 ohm line---open

The 450 ohm line provides 30 deg of phase shift. The
impedance discontinuity at '+' provides 49 deg of
phase shift. The 50 ohm line provides 11 deg of phase
shift. All this happens without any coil in sight.

A very similar thing happens with a 75m mobile antenna.
The base loading coil provides tens of degrees of phase
shift. The impedance discontinuity between the coil and
the stinger provides tens of degrees of phase shift. The
stinger provides tens of degrees of phase shift.

You seem to have taken the tens of degrees of phase shift
in the coil and transferred those number of degrees to
the impedance discontinuity. That is a mistake based on
the presuppositions of the lumped circuit model.

Asserting such is akin to asserting that there is no delay
in the 450 ohm line section in the stub above.

> My opinion is Lewallen and maybe a dozen others have a good handle on
> how it works. It appears you have gradually came more to center also,
> but I'm not quite positive how far. At least you no longer appear to
> be saying the coil represents missing electrical degrees.

For months I have been saying that the mobile antenna doesn't
have to be 90 degrees long. It has been a couple of years
since I said that the coil represents missing electrical
degrees. You know that but still attempt through inuendo to
make hay from a mistake I made two years ago. I correct my
mistakes in real time. It doesn't matter what I said two
years ago. And you object when someone does that to you.

For months I have been saying that the coil delay is what it
is and nobody has made a valid measurement of that delay. The
best information available on that subject (to the best of
my knowledge) is Dr. Corum's paper at:

http://www.ttr.com/TELSIKS2001-MASTER-1.pdf

> I'd bet money I can build a coil that has very low phase delay. I'd
> also bet I could build one with larger phase delay **at the same point
> and frequency in the same system**.

We are not discussing how smart or tricky you can be in producing
one special case coil. We are discussing real-world 75m bugcatcher
coils. Whatever you assert has to apply to all coils, not one
special case. It doesn't matter that you can create one coil
that matches your assertions about all coils. That's like asserting
that all cars are white and producing one white car as proof.

> W5DXP wrote:
>>The 3 nS delay measured by you and the undetectable delay
>>measured by W7EL were invalid measurements of delay.
>
> So you say. We have only your opinion or view on that, and that
> disagrees with other people's opinions. You are not the final word.

It's my view based on all the facts. If I'm wrong, I will freely
admit it and correct my misconceptions. However, at the present
time, I think I have proven that standing wave current on a
standing wave antenna cannot be used to measure the delay through
a wire, much less through a coil. You and W7EL both used standing
wave current, with its unchanging phase, in your phase measurements.

W7EL says that EZNEC agrees with me on that point. So he is in
the position of either disagreeing with EZNEC or admitting that
his phase measurements though accurate were meaningless. EZNEC
proves that standing wave current phase cannot be used to measure
phase shift through a wire, much less through a coil. As recently
as last month, you appeared not to know that fact as illustrated
by this previous posting.
****
> Cecil Moore wrote:
>> I made self-resonance measurements on loading coils
>> and standing wave current measurements on a 6m dipole.
>> W8JI said my measurements were in error. W7EL said
>> my measurements agreed with EZNEC.

Replying to my measurements, here are your words and W7EL's words:

>>W8JI wrote on 3-16-06:
>>> Your measurements are probably wrong. ... After we resolve the
>>> error in current, we can move on.

>>>W7EL replied on 3-16-06:
>>>> The measurement looks good to me. The phase is exactly what EZNEC
>>>> predicts -- constant along the wire.
****
W7EL agrees that the phase is "constant along the wire". How can a signal with constant phase be used to measure phase shift through a wire? or through a coil? After a year, there is still no answer provided for this technical question. The answer provided by EZNEC is at:

http://www.qsl.net/w5dxp/travstnd.GIF

>>Standing wave current suffers zero delay all along a 1/2WL
>>dipole whether it be in a wire or in a coil. The delay through a
>>typical mobile loading coil on 4 MHz appears to be about 25 nS
>>about half of what one would get in a straight wire equal to the
>>wire used in the coil.
>
> Again it depends on the form factor of the coil. By altering the coil
> with no other changes it can be made to vary quite a bit.

We are talking about 75m bugcatcher coils, Tom, not one special case coil engineered by you. If your assertions fail for a 75m bugcatcher coil, then they fail in reality. You assertions have to be valid for all cases or else they are invalid. Finding one special case that agrees with your assertions, e.g. your previous toroidal coil measurement, may boost your ego but doesn't really matter one iota in the overall scheme of technical fact.
--
73, Cecil http://www.qsl.net/w5dxp

1663. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 15:40:50 UTC
From: Bob <warthog9@pacbell.net>
Message-ID: <6OL4g.10069$Lm5.1814@newssvr12.news.prodigy.com>
Source record: 60355

Used various SGC tuners and Icom AH-4. Also tried both of SGCs dual loaded whips with varying results. The longer two piece unit worked surprisingly well 80-10m years ago when conditions were better, even had some fantastic 160m mobile contacts with it. The single 7ft version lacks on 40 and especially 80m compared to the two piece whip but compared to an unloaded 102ï¿½ CB whip, it makes the CB whip look like a dummy load on 40m and below. This is all with an SGC-230 feeding them.
Bob

Buck wrote:
> On Sat, 29 Apr 2006 02:06:48 GMT, Bob <warthog9@pacbell.net> wrote:
>
>> Not counting the potential tuner problems you mention, my experience is
>> a 102ï¿½ whip with no loading will work ok on 10-20m, but on 40m and below
>> it sucks.
>> Bob
>>
> with no tuning? you get acceptable match to your rig without a tuner,
> would you explain more?
>
> thanks
> Buck

1664. Re: Coax Bulkhead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 15:50:08 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <4i2752d8bb5u101l4p317tk0dc63e8qt47@4ax.com>
Source record: 60356

On Wed, 26 Apr 2006 04:12:09 GMT, "west" <westley@tampabay.rr.com>
wrote:

>Is there a place on the net, in a book, etc. that I can see examples &
>diagrams of a coax bulkhead? My house sits on a slab and I want to run about
>4 or 5 coax cables, rotor cable, AC & DC source all going from the shack to
>my tower. In Florida lightning is a major concern so the bulkhead will have
>to have coax & other type of arrestors. All this is grounded to a copper
>ground rod & the cables, of course, to my shack. I would like this outside
>"box" nicely & neatly dressed & labeled so it's easy to disconnect & not an
>eye sore. I searched the Ham books and many Internet sights to no avail.
>Anybody? Thank you.
>
>west, AF4GC
>

FWIW, the latest paper catalog from RadioWorks shows adjustable
plexiglass inserts that will fit the bottom of any window, and they
will outfit the insert with feedthroughs for any type of coax or wire
plugs that you need.

bob
k5qwg

1665. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 16:08:38 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <acM4g.77492$dW3.25920@newssvr21.news.prodigy.com>
Source record: 60357

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> So does this mean if we put a current into one end of the inductor I
>> described, it'll take about 40 ns for current to reach the other end?
>> So we should expect a phase delay in the current of 90 degrees at 6.15
>> MHz, or about 15 degrees at 1 MHz, from one end to the other?
>
>
> Equation (32) at http://www.ttr.com/TELSIKS2001-MASTER-1.pdf
> answers that question. The VF is about double the "round and
> round the coil" calculated value and the VF changes with
> frequency.

Beware of academics who use phrases such as "anisotropically conducting cylindrical boundary," "helically disposed surface waveguide," and "voltage magnification by standing waves." These are just figures of speech. Some academics - fractenna comes to mind - get so carried away with their ideas, they'll try anything to justify them, including the use of nounspeak and polysyllabic jargon. Real scientists and engineers don't have to use such tactics to make a point.
73,
Tom Donaly, KA6RUH

1666. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 16:37:20 UTC
From: w8ji@akorn.net
Message-ID: <1146328640.915773.282060@i40g2000cwc.googlegroups.com>
Source record: 60358

Cecil Moore wrote:
> The coil has to obey the laws of physics. Most real-world
> 75m loading coils occupy tens of degrees of the mobile
> antenna.

Occupy 10's of degrees on 75 meters. Wavelength is about 250 feet. Each degree is .7 feet.

So you are saying the loading coil is "7's of feet long". Is that correct?

>Your assertion that nearly 100% of the coils link
> nearly 100% of the total flux is unrealistic.

I never said that.

>The effect
> of coil flux linkage approximately doubles the VF from
> e.g. ~0.02 to ~0.04, not from 0.02 to near 1.0, as you
> assert. A speed up by a factor of 2 is a lot more
> realistic than a speed up by a factor of 50.

> > The phase delay and current taper is tied to the load impedance on the
> > open end of the coil and the construction of the coil, not to the
> > electrical degrees.
>
> Reference my stub example which contains *NO COIL*. There
> is a *short circuit* looking into the stub.

What's your point in making that switch? We were talking about loading coils, now you are switching to stubs. Why?

> A very similar thing happens with a 75m mobile antenna.
> The base loading coil provides tens of degrees of phase
> shift.

How do you know that?

I can prove that is wrong with measurements, and prove that the design of the coil as well as the placement as it affects stray capaciatncve can move that number all over the place.

I'm happy to see you no longer agree with the misplaced notion the coil replaces missing electrical degrees, but puzzled why you resist understanding the mechanism that allows the phase shift to change with coil design.

Please stay on one thing at a time. I have a life besides newsgroups.

73 Tom

1667. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 16:47:25 UTC
From: w8ji@akorn.net
Message-ID: <1146329245.590217.72630@g10g2000cwb.googlegroups.com>
Source record: 60359

Cecil Moore wrote:
> We are talking about 75m bugcatcher coils, Tom, not one special
> case coil engineered by you. If your assertions fail for a 75m
> bugcatcher coil, then they fail in reality. You assertions have
> to be valid for all cases or else they are invalid. Finding one
> special case that agrees with your assertions, e.g. your previous
> toroidal coil measurement, may boost your ego but doesn't really
> matter one iota in the overall scheme of technical fact.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Actually that statement proves YOUR theory wrong Cecil, not mine.

I'm saying that in an antenna of fixed length with a fixed coil location on a given frequency, I can change ONLY the coil design, still maintain resonance, and have phase delay of current change significantly.

YOU are the one who appears to be saying all coils and stubs are equal within a small range.

The theory I believe to be correct is the capacitance from the inductor to the rest of the world compared to termination impedance determines phase shift in current and current taper. What is it you think determines current phase shift at each end and current taper?

Explain the logic behind your idea in a way that makes the toroid work, or a compact equal form factor inductor have very low phase shift compared to an entire helice.

My example works in every case. Your's fails, and you cannot just toss out the obvious disagreement and expect people to take you seriously.

73 Tom

1668. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 17:05:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <055752d74trn10kgf3m77vi6o1hl484atj@4ax.com>
Source record: 60360

On Sat, 29 Apr 2006 07:55:47 -0400, Buck <not@this.time> wrote:
>There are a total of four antennas I have mentioned in here for
>comparison sake.

Hi Buck,

They are by degrees poor, poorer and poorest.

>The Hustler
You probably walked away from the best of the group here.
>the 102 whip with a possible 2 foot extension
which isn't extension enough.
>and two Antenna Specialists (AS)
the air-cooled resistors.

>The fiberglass poles, of course, have copper wound around them
>from bottom to top, above which is a whip (stinger) about the same
>length as the pole.

These on something like 4 foot or longer extension poles would help
you for a cheap solution to the lower bands. Adding a top hat to the
stinger (yeah, impossible) would go further.

> (I don't have the 102 whip yet.)

Get one, at hamfests they are cheaper than toilet paper.

>I know others who have used the 102 steel
>whip/auto-tuner combination that I have talked to never complained
>that they only received s-2 signals with the system.

They would never notice on receive. The tuner made the difference.

>Therefore, my
>theory is that the winding of the coil on the fiberglass poles is
>adversely affecting the radiation on out-of-band operation. I am
>hoping that the steel whip, with or without the extension, will
>perform better on all bands than any of these antennas tested.

A coil loading it halfway up would go further (AKA Bugcatcher).

>I realize it is a compromise but the loss of an s-unit or two in
>exchange for all band coverage for my mobile without having to switch
>antennas or get out of the car and change taps is an acceptable
>trade-off.

Then using a cheap tuner (with a loaded antenna), by all means, is
part of the solution.

>My question is whether or not the tuner itself can hold up to
>the task without being damaged.

As an all band solution, you do stand the risk of one of them being a fire-breather. Just which is hardly predictable with any accuracy given the vast number of variables. There is certainly a strong correlation with longer wavelengths and short antennas. So, you might design two systems - cheaply, of course.

>>Mobile quarterwave dipole?
>base. The suggestion I was given was not to use the antenna tuner on
>a 20 meter dipole to tune a 40 meter frequency. This would be a 1/4
>wave dipole on 40 meters. I don't know what the impedance of such an
>antenna would be, but I do know that a 1/4 wave vertical is a
>reasonable match.

Again, you should never believe everything you hear.

A quarter wave dipole should be a snap to tune. On the other hand, using an 80M antenna on 40M could be a bear. Also, a quarterwave dipole is only vaguely related to a quarterwave vertical - um, let's just say that relationship is too strained to be compared.

>We never discussed the use of the tuner in the mobile.

That was the first thing you said, it would be quite close to the proposed mount. Anyway, I have always considered it part of your cheap solution and it has a place there.

>I should have clarified that this statement. The internal inductor of
>the tuner makes up the missing length of the antenna and heats up
>which can cause damage to the antenna tuner's inductor. This is how
>it was presented to me, or how I understood it. Again, the discussion
>was using the tuner to tune short dipoles to transmit on lower
>frequencies.

This is another instance of not believing everything - but it at least this time it offers a nugget of truth. This is the spin of the wheel of chance I mentioned above. Don't fret so much and simply try it in the driveway. Open the tuner, fire up the rig and tune for lowest SWR. Let go of the key and touch components to see how hot it's gotten. You don't need infra-red analysis and toolkit of thermocouple probes to obtain a good understanding of the situation. Repeat on all bands.

73's
Richard Clark, KB7QHC

1669. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 17:10:29 UTC
From: Bob <warthog9@pacbell.net>
Message-ID: <96N4g.77517$dW3.54166@newssvr21.news.prodigy.com>
Source record: 60361

The J-pole crowd seems to tout fantastic claims about this antenna and I
have never been impressed. Many people have tested the J-pole against
other easy to make antennas and the end fed half wave J-pole usually
does not stand up to even iti¿½s brother, the center fed half wave dipole.
I assume the decrease in performance is due to mistakes in assembling
and tuning the matching section. Here is a link to a group that tested
some J-poles against other antennas in the CA desert and the J-pole lost
to even simple 1/4 wave ground plane types.
www.geocities.com/SiliconValley/2775/anttest.html
My point is, why not make a simple ground plane for the attic that may
not get bothered by surroundings as much as the J-pole.
Bob

Buck wrote:
> On 25 Apr 2006 16:43:11 -0700, jgboyles@aol.com wrote:
>
>> jimbo wrote:
> SNIP
>>> jimbo - AJ7IM
>> Hi Jimbo, it has been my experience, and everybody else's that an
>> indoor or attic J-pole is unpredictable. A high impedance end fed
>> antenna in an attic environment will be hard to predict. Moving it one
>> foot can effect things.
>> You might consider the SO-239 ground plane. It can be built and
>> tuned in 30 minutes, is 50 ohms, so it will not be so concerned about
>> its environment. Likely you could not tell a difference in performance
>>from a J-pole especially if they are both in the attic.
>> Oh yes, the standard-if the SWR is below 3.0, don't worry about it.
>> Gary N4AST
>
>
> I started building dipole antennas. they can be mounted horizontal or
> vertical and easily moved around. I use cpvc with a dipole wire
> inside and a coax-choke balun. They work quite well.
>
> Just another option.

1670. Re: question about caps in tuning loops ..

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 17:10:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <wLudnQ_m6sqkOc7ZRVnysQ@bt.com>
Source record: 60366

There are other magloop programs beside mine.

Most of the others calculate the size of the tuning capacitor in pF to be that which resonates the calculated loop inductance in micro-henrys.

This is incorrect.

It may be OK for very small loops. But, taking the extreme example. when the loop circumference approaches 1/2-wavelength at the working frequency, obviously no more capacitance is needed regardless of the value of the loop inductance.

But if there is no capacitor then the loop cannot be tuned precisely to resonance! A variable capacitor, with its minimum stray capacitance, is always needed. The inductance being somwhat less than the theoretical value.

It is popularly assumed that the diameter of the small coupling loop must be 1/5th of the diameter of the main loop. Actually this is a rule of thumb and, for an accurate impedance match, the diameter changes somewhat with frequency and the conductor diameter of the main loop.

But 1/5th diameter applies only when the impedance to be matched is a 50-ohm coax. Other feedpoint impedances need a different diameter. The diameter of a 75-ohm coupling loop should be about 1/4 of the diameter of the main loop.

It is common practice to screen the coupling loop by making it from coax cable. This is a waste of time and materials. No useful purpose is served either on receive or transmit.

The coupling loop can be a self-supporting circle of wire of no greater thickness than the inner conductor of the coax cable which serves it. It can be a square or other loop of the same area but a circle is neater.

It is best to make no direct connexion between the main and coupling loops. Isolate the main loop from the feedline and everthing else. Although this may be difficult to do when there are control wires for a motor-driven variable tuning capacitor. Chokes can be used in control wires or bundles of wires.

Just a few hints and tips which come to mind.

Reg.

1671. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 17:13:42 UTC
From: richardharrison@webtv.net
Message-ID: <10935-44539EC6-55@storefull-3258.bay.webtv.net>
Source record: 60362

Roy, W7EL wrote:
"What good are all the books if the information can`t be used to solve a simple problem?"

Many problems fit examples in the books. Some don`t. Implications in my case are sometimes slow to sink in. An example is what Kraus writes on page 227 of the 3rd edition of "antennas":
"Thus, a helix combines the geometric forms of a straight line, a circle, and a cylinder."

Cecil says that RF on a helix may take a short-cut. He may be right. Why would not a wave deviate from the round and round path on a coil and sweep at least in part directly along the cylindrical length? It may be a case for experimentation with a variety of lengths, pitches, and circumferences.

Best regards, Richard Harrison, KB5WZI

1672. Re: Lightning suppressor?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 17:25:25 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <dq77525lu49jnf9bmt4som92ndbfuodcfk@4ax.com>
Source record: 60363

I would follow the advice of TCLAY a couple of posts back. I would add
that there should also be a low impedance ground at the shack entrance
where the lightning arrestor is placed. At that same point the rest of
the radio equipment should be grounded. One common ground point for
all. The tower ground should also be run over to that common ground
point.
The AC power that supplies your equipment should have protection
devices that connect to the common single point ground also.

All grounds in the system should be tied together.

The idea of the single point ground is to have all equipment go up in
voltage together if there is a lightning strike and fall together.
This eliminates voltage differences between parts of equipment that
causes damage.

The coax shield should be grounded to the tower at the top and the
bottom of the tower. The tower should have a substantial ground system
of several ground rods and radials.

Look at the Polyphaser site again. They show how a single point ground
system should be installed.

73
Gary K4FMX

On Sat, 29 Apr 2006 14:38:22 GMT, John Ferrell
<johnferrell@sprintmail.com> wrote:

>The low response to the question leads me to believe that many (most?)
>have reached the same conclusions as I have.
>
>That is:
>Isolating the incoming antenna and control cables is the preferred
>method. Providing a low impedance path to ground in the radio shack is
>undesirable.
>
>Further, adding an extra ground point in the system wherever is a
>lightning no-no and introduces unknowns into the RF scheme. Especially
>if one chooses to not run a 1:1 swr.
>
>In my case the base of the tower has its own ground and is connected
>to the structure lightning protection. I will continue to disconnect
>and connect cables.
>
>If an application that requires operation during electrical storms is

>the norm, it becomes a different circumstance.
>
>I will keep an open mind to the question though!
>John W8CCW
>
>On Sat, 29 Apr 2006 03:41:56 GMT, Sum Ting Wong
><sumtingwong@privacy.net> wrote:
>
>>On 27 Apr 2006 17:24:55 -0500, tclay@qmc.ph.msstate.edu wrote:
>>
>>>>I would like to put an arrestor in the line but recommendations are
>>>>sketchy even from those who sell them. I assume it would be most
>>>>effective at the base of the tower on the ground rod. The drawing in
>>>>the ARRL Antenna Handbook shows the arrestor on a common station
>>>>ground.
>John Ferrell W8CCW

1673. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 17:32:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <238752lul1dlue1l385ed1moboa30b2ble@4ax.com>
Source record: 60364

On 29 Apr 2006 09:37:20 -0700, w8ji@akorn.net wrote:

>> Reference my stub example which contains *NO COIL*. There
>> is a *short circuit* looking into the stub.
>
>What's your point in making that switch? We were talking about loading
>coils, now you are switching to stubs. Why?

compare with:

>Please stay on one thing at a time. I have a life besides newsgroups.

Tom,

Enjoy life more by not responding to those issues that are irrelevant
to your enquiry. Look at your question above. It is a sure
invitation to endless rambling - asked twice in the space of three
sentences.

73's
Richard Clark, KB7QHC

1674. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 17:34:16 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5s8752pu3oqeqmorfl6t2if0kakhplr3se@4ax.com>
Source record: 60365

On 29 Apr 2006 09:47:25 -0700, w8ji@akorn.net wrote:

>What is it you think
>determines current phase shift at each end and current taper?

GROAN....

1675. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 17:51:13 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146333073.590407.297500@i39g2000cwa.googlegroups.com>
Source record: 60367
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 28 Apr 2006 17:47:23 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:
>
> >
> >Fred wrote:
> >> On 28 Apr 2006 08:29:38 -0700, "an old freind"
> >> <kb9rqz-ars@hotmail.com> wrote:
> >>
> >> >
> >
> >> >> You said a mouthful. Oh and I agree with you. It just aint natural!
> >> >funny it occours outside of man and outside the primates in nature all
> >> >the time
> >>
> >> So you are as stupid as a monkey or a dog?
> >
> >no you point?
> >
> >it looks like you are here to push your religous agenda and nothing to
> >with radio
>
> If you were smart enough to read you would find out that I do not
> believe in DOG.
I never stated you did
> I am just picking on you for being a militant pro-gay
> that is trolling Usenet groups looking for acceptance of his sick
> lifestyle.

hardly you don't know what miliatant is

you are psuhing you milltant religionous agenda where it desn't belong.
you have the right to do that, as I have the right to post what I see
fit
your problem is that you can't face the fact I have the same rights as
you do

you want an end to defense of My Bisexaulity it can be had easiily

you mustb(and the rest must refrain from atacking ti and refrain from
using the cry or "faggot" as an arguement in the NG

it is that simple but the likes of you have proven you can't do it

1676. Re: Lightning suppressor?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 18:18:18 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <vcb752lr45r7e1p2nbo69omhk3a0ceq5kl@4ax.com>
Source record: 60368

Thank you. Lots to read & consider there. It will take me a while to
digest it. Some how I managed to miss Polyphaser in my searching.

John, W8CCW

On Sat, 29 Apr 2006 13:25:25 -0400, Gary Schafer
<gaschafer@comcast.net> wrote:

>I would follow the advice of TCLAY a couple of posts back. I would add
>that there should also be a low impedance ground at the shack entrance
>where the lightning arrestor is placed. At that same point the rest of
>the radio equipment should be grounded. One common ground point for
>all. The tower ground should also be run over to that common ground
>point.
>The AC power that supplies your equipment should have protection
>devices that connect to the common single point ground also.
>
>All grounds in the system should be tied together.
>
>The idea of the single point ground is to have all equipment go up in
>voltage together if there is a lightning strike and fall together.
>This eliminates voltage differences between parts of equipment that
>causes damage.
>
>The coax shield should be grounded to the tower at the top and the
>bottom of the tower. The tower should have a substantial ground system
>of several ground rods and radials.
>
>Look at the Polyphaser site again. They show how a single point ground
>system should be installed.
>
>73
>Gary K4FMX
>
>
>On Sat, 29 Apr 2006 14:38:22 GMT, John Ferrell
><johnferrell@sprintmail.com> wrote:
>
>>The low response to the question leads me to believe that many (most?)
>>have reached the same conclusions as I have.
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>>That is:
>>Isolating the incoming antenna and control cables is the preferred
>>method. Providing a low impedance path to ground in the radio shack is
>>undesirable.

>>
>>Further, adding an extra ground point in the system wherever is a
>>lightning no-no and introduces unknowns into the RF scheme. Especially
>>if one chooses to not run a 1:1 swr.
>>
>>In my case the base of the tower has its own ground and is connected
>>to the structure lightning protection. I will continue to disconnect
>>and connect cables.
>>
>>If an application that requires operation during electrical storms is
>>the norm, it becomes a different circumstance.
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>>I will keep an open mind to the question though!
>>John W8CCW
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>>On Sat, 29 Apr 2006 03:41:56 GMT, Sum Ting Wong
>><sumtingwong@privacy.net> wrote:
>>
>>>On 27 Apr 2006 17:24:55 -0500, tclay@qmc.ph.msstate.edu wrote:
>>>
>>>>>I would like to put an arrestor in the line but recommendations are
>>>>>sketchy even from those who sell them. I assume it would be most
>>>>>effective at the base of the tower on the ground rod. The drawing in
>>>>>the ARRL Antenna Handbook shows the arrestor on a common station
>>>>>ground.
>>John Ferrell W8CCW
John Ferrell W8CCW

1677. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 18:22:52 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1146334972.592832.210040@v46g2000cwv.googlegroups.com>
Source record: 60369

If the language in the Corum paper bothers you, check the math.

The Corum paper gives a mathematical solution of Maxwell's equations for a helix that allows you to answer the questions that have been ongoing in this thread.

I'm not going to claim that I worked through the solution myself. I did read it and try to understand the process. It looks just like what I've done over and over again in electromagnetic theory courses. You write down the wave equation, the boundary conditions, and you solve.

The geometry of the problem leads to lots of bessel functions and the necessity to numerically solve the resulting equations to find the solutions in the middle ground between a lumped circuit coil and a TWT helix.

I feel like this is typical of physical problems that have a limiting case at either end. If you go to infinite propagation speed, or a coil that is very very short compared to a wavelength, you get a lumped circuit.

If you go to a very long helix with respect to a wavelength, the wave on the helix goes round and round the turns.

In the middle, the Corum paper describes the situation in mathematical detail.

Both crackpots and respectable scientists can use complicated terms. The former use them to obscure unverifiable claims, the latter use them to try to put a concise name on something that has a complicated mathematical description.

Throw all the words out of the Corum paper, if you like. Let's look only at the solution. Is there anything wrong with the mathematical solution to the wave equation on the helix presented there? Is the solution in fact applicable to a GIVEN ham antenna loading coil? Can we use it to predict the difference in current at either end of a loading coil for a given ham antenna loading coil?

I was going to write "typical" ham antenna loading coil, but I realized that's a trap. You can't take the solution in the Corum paper, reduce it to a rule of thumb for the "typical" ham loading coil, and then use that rule of thumb to make quantitative predictions about a particular coil in a particular configuration!

Does the solution applicable to all helix sizes and pitches (the transcendental equation, equation 28 for the constant tau) and the

equation for the velocity of propagation along the axis of the coil (phase velocity = omega/beta) give the correct delay or not?

I think equation 28 can be solved in Matlab or Mathematica or something else. I haven't quite figured out if Figure 1 uses approximations or if it is numerical solutions of equation 28. If it's the latter, you can just use the figure.

73,
Dan
N3OX

1678. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 19:20:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1257f3h64h9dn21@corp.supernews.com>
Source record: 60370

So is that a "yes", or "no"?

Roy Lewallen, W7EL

Richard Harrison wrote:
> Roy, W7EL wrote:
> "What good are all the books if the information can`t be used to solve a
> simple problem?"
>
> Many problems fit examples in the books. Some don`t. Implications in my
> case are sometimes slow to sink in. An example is what Kraus writes on
> page 227 of the 3rd edition of "antennas":
> "Thus, a helix combines the geometric forms of a straight line, a
> circle, and a cylinder."
>
> Cecil says that RF on a helix may take a short-cut. He may be right. Why
> would not a wave deviate from the round and round path on a coil and
> sweep at least in part directly along the cylindrical length? It may be
> a case for experimentation with a variety of lengths, pitches, and
> circumferences.
>
> Best regards, Richard Harrison, KB5WZI
>

1679. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 19:31:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1257fp394gu7t3d@corp.supernews.com>
Source record: 60371

Allisonnospam@nouce.bellatlantic.net wrote:
> I happen to like them as they can be made from common materials with
> excellent ruggedness. As to the other claims of fantastic gain and
> all, it's bogus. It's a vertical halfwave endfed and the gain is
> 2.4ish DB over a dipole and that's all. If executed correctly it
> will be better than a 1/4wl groundplane but not by any fanstastic
> amount. For many applications that is a "good enough" antenna.
>
> Allison

What's the mechanism which gives this half wave antenna 2.4 dB gain over a half wave dipole?

Modeling shows the gain to be the same as a dipole, if you can manage to keep the current on the outside of the feedline to a small value. If you can't, the gain in the horizontal direction typically becomes less than a dipole.

Roy Lewallen, W7EL

1680. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 19:36:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qfP4g.18521$4L1.1333@newssvr11.news.prodigy.com>
Source record: 60372

w8ji@akorn.net wrote:

I'm going to ask a couple of technical question at the beginning
rather than getting them trimmed and ignored in the body:

1. You seem ready to admit that there is 10 degrees of delay
through a 10 degree long stinger. Yet, if you measured that
delay using standing wave current phase, you would measure
a zero phase shift through the stinger. Why aren't you arguing
that there is no phase shift in the stinger?

2. There is no appreciable standing wave current phase shift from
feedpoint to the tip of the stinger in a 75m mobile bugcatcher
antenna. To be consistent, don't you have to argue that the
75m mobile bugcatcher antenna is zero degrees long?

> Cecil Moore wrote:
> So you are saying the loading coil is "7's of feet long". Is that
> correct?

Compared to a straight wire at 4 MHz, yes, that's what I am
saying. A 75m bugcatcher coil uses about 42 feet of wire.
The delay through that coil is *roughly* equal to about half
that number of feet of straight wire. The reason it is not
equal to 42 feet of straight wire is the flux coupling between
the coils.

>>Your assertion that nearly 100% of the coils link
>>nearly 100% of the total flux is unrealistic.
>
> I never said that.

But it would necessarily have to be true for the velocity factor
of the coil to be anywhere near 1.0 and you did say that.

> What's your point in making that switch? We were talking about loading
> coils, now you are switching to stubs. Why?

THE EFFECT EXISTS WHETHER THE COIL EXISTS OR NOT. Which
indicates it is the nature of standing wave current, not coils,
that you do not understand. The standing wave current phase
is unchanging whether a coil exists or not. ONE CANNOT EVEN
USE STANDING WAVE CURRENT PHASE TO MEASURE THE PHASE SHIFT
THROUGH A WIRE, much less through a coil.

Given that standing wave current phase cannot be used to
measure the delay through a wire, coil, or anything else,

it follows that nobody has provided any valid measurements
for the delay through a coil.

>>A very similar thing happens with a 75m mobile antenna.
>>The base loading coil provides tens of degrees of phase
>>shift.
>
> How do you know that?

The stub involves two different Z0's. The 75m mobile antenna
involves two different Z0's, one for the coil, the other for
the stinger. It's the same principles using the same equations.
The phase shift at the impedance discontinuity depends upon the
ratio of those two Z0's. The higher the ratio, the greater the
phase shift. The ratio of 450 to 50 is obviously 9:1.

A rough estimate of the Z0 of the coil is around 2400 ohms and
a rough estimate of the Z0 of the stinger is around 400 ohms.
That makes the Z0 ratios roughly 6:1.

> I'm happy to see you no longer agree with the misplaced notion the
> coil replaces missing electrical degrees, but puzzled why you resist
> understanding the mechanism that allows the phase shift to change with
> coil design.

Speaking of what we both believed two years ago:
I'm happy to see you no longer agree with the misplaced notion that
the coil has equal current magnitudes and phases at each end, but
puzzled why you resist understanding the low velocity factor
associated with helical loading coils. The velocity factor of 75m
bugcatcher loading coils is typically less than 0.1

From the Dr. Corum paper, we have an equation for velocity factor
for coils passing a litmus test. A 75m bugcatcher coil passes that
litmus test with flying colors. The resulting VF is in the ballpark
of 0.04 which is in the ballpark of Reg's VF calculations which is
in the ballpark of Richard Harrison's calculations. Your VF of 1.0
along the length of the coil is the one that is completely out of
the ballpark.

Take your 100uH coil and measure its self-resonant frequency
directly over a large metal ground plane. Keeping everything,
including frequency, the same, cut the coil in half. Add a
stinger to the bottom half of the coil to bring the system back
into resonance at the fixed frequency. We know the delay through
the coil is roughly 45 degrees. We know the stinger is roughly
10 degrees. The impedance discontinuity at the coil to stinger
junction is causing roughly 35 degrees of phase shift. That
tells us that the Z0 ratio of the coil to stinger is about 6:1.

I have been through the above exercise using EZNEC.
--
73, Cecil http://www.qsl.net/w5dxp

1681. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 20:04:26 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <eFP4g.18526$4L1.15273@newssvr11.news.prodigy.com>
Source record: 60373

w8ji@akorn.net wrote:
> I'm saying that in an antenna of fixed length with a fixed coil
> location on a given frequency, I can change ONLY the coil design, still
> maintain resonance, and have phase delay of current change
> significantly.

So can I - so what? It's the same thing as changing the Z0
of one of the pieces of feedline in my two-Z0 stub example.
No coil is required, indicating once again that your misconception
involves standing waves, not coils.

IMO, you are never going to understand this topic until you
take time out to understand standing waves.

> What is it you think
> determines current phase shift at each end and current taper?

I explained that at the start of the argument two years ago
and it has been posted on my web page ever since then.

http://www.qsl.net/w5dxp/current.htm

Scroll down to:
"Why the Net Current is not Constant Through a Loading Coil"

> My example works in every case.

No it doesn't. Your own current measurements prove that the
current is *NOT* equal at both ends of a coil (and your
phase measurements were invalid). Only one special case toroid
showed the currents at the ends of the coil to be equal. All
the other cases proved that the currents are *NOT* equal.

As Gene Fuller said, the standing wave current phase information
is contained in the magnitude. With a current of 2.0 amps at one
end of the coil and a current of 1.414 amps at the other end of
the coil, it exactly matches the example on my web page. One of
your measurements was very close to 1 amp at one end and 0.7 amps
at the other end. It fits perfectly.
--
73, Cecil http://www.qsl.net/w5dxp

1682. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 20:07:19 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <1257hrlls8jm694@corp.supernews.com>
Source record: 60374
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Fred" <freddyr1928@ll.net> wrote in message
news:cff752ptrbujv3st3o1r30ececm1f3oku4@4ax.com...
> On 29 Apr 2006 10:51:13 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:
>
>>
>>Fred wrote:
>>> On 28 Apr 2006 17:47:23 -0700, "an_old_friend" <konstans@hotmail.com>
>>> wrote:
>>>
>>> >
>>> >Fred wrote:
>>> >> On 28 Apr 2006 08:29:38 -0700, "an old freind"
>>> >> <kb9rqz-ars@hotmail.com> wrote:
>>> >>
>>> >> >
>>> >
>>> >> >> You said a mouthful. Oh and I agree with you. It just aint
>>> >> >> natural!
>>> >> >funny it occours outside of man and outside the primates in nature
>>> >> >all
>>> >> >the time
>>> >>
>>> >> So you are as stupid as a monkey or a dog?
>>> >
>>> >no you point?
>>> >
>>> >it looks like you are here to push your religous agenda and nothing to
>>> >with radio
>>>
>>> If you were smart enough to read you would find out that I do not
>>> believe in DOG.
>>I never stated you did
>>> I am just picking on you for being a militant pro-gay
>>> that is trolling Usenet groups looking for acceptance of his sick
>>> lifestyle.
>>
>>hardly you don't know what miliatant is
>>
>>you are psuhing you milltant religionous agenda where it desn't belong.
>>you have the right to do that, as I have the right to post what I see
>>fit

>>your problem is that you can't face the fact I have the same rights as
>>you do
>>
>>you want an end to defense of My Bisexaulity it can be had easiily
>>
>>you mustb(and the rest must refrain from atacking ti and refrain from
>>using the cry or "faggot" as an arguement in the NG
>>
>>it is that simple but the likes of you have proven you can't do it
>
> How many times do I have to tell you that I am an atheist? You can
> support and defend your faggotry all you want, but this is not the
> forum for that sick shit. You have no right to harass people in
> rec.radio.cb or any other newsgroup so suck on that you stupid turd
> pusher.

And to this day he has yet to make an on topic post. I'll bet he was given the answers while taking his ham test and still failed the first three times. Makes me wonder if he even has radio equipment.

1683. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 20:18:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <6SP4g.18530$4L1.16553@newssvr11.news.prodigy.com>
Source record: 60375

n3ox.dan@gmail.com wrote:
> I think equation 28 can be solved in Matlab or Mathematica or something
> else. I haven't quite figured out if Figure 1 uses approximations or
> if it is numerical solutions of equation 28. If it's the latter, you
> can just use the figure.

Since Fig. 1 occurs after equation (32), I assumed it was for
equation (32). The three variables in equation (32) are coil
pitch, coil diameter, and wavelength. Those are essentially
the same variables plotted in Fig. 1 with the diameter per
wavelength ratio and the turns per wavelength ratio.

Dr. Corum says that for coils passing the litmus equation
test, the error is less than 10% which is perfectly acceptable
for this discussion where W8JI's VF seems to be off by about
5000%. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1684. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 20:21:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <dVP4g.18532$4L1.5690@newssvr11.news.prodigy.com>
Source record: 60226

Allisonnospam@nouce.bellatlantic.net wrote:

> I happen to like them as they can be made from common materials with
> excellent ruggedness.

A 1/4WL ground plane takes one SO-239 and five pieces of
19 inch copper wire (or stingers). :-)
--
73, Cecil http://www.qsl.net/w5dxp

1685. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 20:25:23 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <TYP4g.18533$4L1.11652@newssvr11.news.prodigy.com>
Source record: 60227

Roy Lewallen wrote:
> What's the mechanism which gives this half wave antenna 2.4 dB gain over
> a half wave dipole?

A J-Pole over ground obviously has gain over a half wave
dipole in free space? :-)
--
73, Cecil http://www.qsl.net/w5dxp

1686. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 21:07:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hAQ4g.70978$H71.62645@newssvr13.news.prodigy.com>
Source record: 60228

Allisonnospam@nouce.bellatlantic.net wrote:

> Cecil Moore <mycall@hotmail.com> wrote:
>>A 1/4WL ground plane takes one SO-239 and five pieces of
>>19 inch copper wire (or stingers). :-)
>
> Now drive over one with a Chevy Pickup, the Jpole survived that
> at field day one year.

Well, I just did that with a GMC pickup (hope that counts).
Nothing broke. I just straightened out the wires and it
still works just fine. If, Heaven forbid, a wire broke, it
would only take a butt connector and 20 seconds to repair it.
--
73, Cecil http://www.qsl.net/w5dxp

1687. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 21:13:51 UTC
From: w8ji@akorn.net
Message-ID: <1146345231.139348.4050@v46g2000cwv.googlegroups.com>
Source record: 60229

Cecil Moore wrote:
> 1. You seem ready to admit that there is 10 degrees of delay
> through a 10 degree long stinger. Yet, if you measured that
> delay using standing wave current phase, you would measure
> a zero phase shift through the stinger. Why aren't you arguing
> that there is no phase shift in the stinger?

Cecil,

Earlier we both agreed the current we measure with a magnetic probe, which is the most common and widely accepted measurement device, is the actual current that causes radiation, heating, and the magnetic induction field. It is the current that heats the element and moves a thermocouple meter, it is the current that cause I^2R heating, and the current that moves past one point in the system if we stopped and counted charges, or if we calculated current based on drift velocity of charge carriers.

So what current is it you are measuring? Charges cannot flow two directions at the same time at the same point in a system. There cannot be drift velocity in two dorections at the same time.

Are you talking about a pulse of current and the return echo?

> 2. There is no appreciable standing wave current phase shift from
> feedpoint to the tip of the stinger in a 75m mobile bugcatcher
> antenna. To be consistent, don't you have to argue that the
> 75m mobile bugcatcher antenna is zero degrees long?

It is however long it is. If it is 7 feet long it is about ten electrical degrees long on 75 meters, because every foot is about .7 degrees.

> Speaking of what we both believed two years ago:
> I'm happy to see you no longer agree with the misplaced notion that
> the coil has equal current magnitudes and phases at each end,

Maybe two years ago I knew that and published it, so I am happy you finally see I did.

> puzzled why you resist understanding the low velocity factor
> associated with helical loading coils. The velocity factor of 75m
> bugcatcher loading coils is typically less than 0.1

.....and you know that because?

> From the Dr. Corum paper, we have an equation for velocity factor
> for coils passing a litmus test. A 75m bugcatcher coil passes that

> litmus test with flying colors. The resulting VF is in the ballpark
> of 0.04 which is in the ballpark of Reg's VF calculations which is
> in the ballpark of Richard Harrison's calculations. Your VF of 1.0
> along the length of the coil is the one that is completely out of
> the ballpark.

I never said 1.0, as a matter of fact the coil I measured had a vF
(when compared to physical length) of about .5

I measured delay through an approximately 100uH coil at:

http://www.w8ji.com/inductor_current_time_delay.htm

You can see the big change at self-resonance near 16 MHz. 3.8 MHz is
not near 16MHz, so the behavior is quite different at the two
frequencies.

> Take your 100uH coil and measure its self-resonant frequency
> directly over a large metal ground plane. Keeping everything,
> including frequency, the same, cut the coil in half.

Sorry, I won't cut the last few pieces of miniductor I have like that
in half.

So what current are you measuring?

73 Tom

1688. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 21:17:20 UTC
From: w8ji@akorn.net
Message-ID: <1146345440.066253.316730@y43g2000cwc.googlegroups.com>
Source record: 60230

Cecil Moore wrote:
> w8ji@akorn.net wrote:
> > I'm saying that in an antenna of fixed length with a fixed coil
> > location on a given frequency, I can change ONLY the coil design, still
> > maintain resonance, and have phase delay of current change
> > significantly.
>
> So can I - so what? It's the same thing as changing the Z0
> of one of the pieces of feedline in my two-Z0 stub example.
> No coil is required, indicating once again that your misconception
> involves standing waves, not coils.

Now Cecil, get serious.

We all know a stub has distributed capacitance and distributed
inductance. We all know an inductor has the same thing. We can solve
the problem equally well using a network of distributed components as
many others have shown.

> IMO, you are never going to understand this topic until you
> take time out to understand standing waves.

Well, I could say the same to you about coils and capacitors. :-)

> > What is it you think
> > determines current phase shift at each end and current taper?
>
> I explained that at the start of the argument two years ago
> and it has been posted on my web page ever since then.

So you don't want to say, or can't say in a few words?

73 Tom

1689. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 21:38:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <x1R4g.70986$H71.1280@newssvr13.news.prodigy.com>
Source record: 60231

w8ji@akorn.net wrote:
> Earlier we both agreed the current we measure with a magnetic probe,
> which is the most common and widely accepted measurement device, is the
> actual current that causes radiation, heating, and the magnetic
> induction field. It is the current that heats the element and moves a
> thermocouple meter, it is the current that cause I^2R heating, and the
> current that moves past one point in the system if we stopped and
> counted charges, or if we calculated current based on drift velocity of
> charge carriers.

It is the current that has the equation: Itot = Io*cos(kx)*cos(wt)
Until you take time out to understand the implications of that
equation, you will *never* understand what I am talking about. That
current cannot be used to measure delay. Yet, that is exactly what
you and W7EL did and, in your ignorance, reported as valid measurements
of delay through a coil. If you had a clue to what you are saying, you
would feel ignorant in the extreme.

> So what current is it you are measuring? Charges cannot flow two
> directions at the same time at the same point in a system. There cannot
> be drift velocity in two dorections at the same time.

Just as two water waves can flow in opposite directions using the
same water molecules, two EM waves can flow in opposite directions
using the same electrons.

> Are you talking about a pulse of current and the return echo?

You know that I am talking about the distributed network model,
a superset of the lumped circuit model. Instead of rehashing it
here, please refer to my magazine article at:

http://www.qsl.net/w5dxp/energy.htm

and tell me what it is about that article that you don't understand.

>>2. There is no appreciable standing wave current phase shift from
>>feedpoint to the tip of the stinger in a 75m mobile bugcatcher
>>antenna. To be consistent, don't you have to argue that the
>>75m mobile bugcatcher antenna is zero degrees long?

> It is however long it is.

Exactly the same argument holds for a coil. Think about it. You
cannot deny the validity of standing wave current phase measurements
through a stinger and then turn around and deny that same argument
when it applies to a coil. If W7EL's phase measurements were invalid

for a stinger, then they were equally invalid for a coil.

> I never said 1.0, as a matter of fact the coil I measured had a vF
> (when compared to physical length) of about .5

Sorry, that's still about 1000% too high, still completely out
of the ballpark. What I suspect is that you measured zero delay
through the coil and reported 3 nS because you knew zero was
obviously wrong.
--
73, Cecil http://www.qsl.net/w5dxp

1690. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 21:52:26 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ueR4g.70991$H71.30217@newssvr13.news.prodigy.com>
Source record: 60232

w8ji@akorn.net wrote:
> So you don't want to say, or can't say in a few words?

I know one of your tactics used to "win" an argument is
to wear the opponent down to a nub where it is not worth
the effort to continue even when he is right and you are
wrong. I'm not going to play your silly game. All the
information is there on my web page at:

http://www.qsl.net/w5dxp/current.htm
--
73, Cecil http://www.qsl.net/w5dxp

1691. Mobile Antenna Question..

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 21:59:19 UTC
From: Brian Murrey <brian@iquest.net>
Message-ID: <XkR4g.10940$sq5.5363@newsread2.news.atl.earthlink.net>
Source record: 60233

I have a 2004 Ford Tarus SES and I was thinking about putting a mobie HF antenna on it so I can play radio while driving from city to city doing my job.

I have never had a mobile HF rig so I have some questions.

First...is there a website, newsgroup, or some other resource that might have some HF antenna mounting info about my particular car?

I'm thinking about using a hamstick or a Workman Mobile from Hamstop on eBay. I guess the big gnarley triple mag mount would work, but I was also thinking about a license plate mounting kit....any suggestions?

How tall are these types of antennas for 40m, and 20m? My rig is a KX1 and it has 20, 30, and 40 meter capability.

Thanks

73 de KB9BVN

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==========
Radio Amateurs - Fill your junk box, from my junkbox!
http://www.hamradparts.com
73 de KB9BVN
==========

1692. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 22:13:45 UTC
From: Terry Two Shoes <anon@anon>
Message-ID: <e30oepefq0@pita.alt.net>
Source record: 60234
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in message
news:1257hrlls8jm694@corp.supernews.com...
"Fred" <freddyr1928@ll.net> wrote in message
news:cff752ptrbujv3st3o1r30ececm1f3oku4@4ax.com...
> On 29 Apr 2006 10:51:13 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:
>
>>
>>Fred wrote:
>>> On 28 Apr 2006 17:47:23 -0700, "an_old_friend" <konstans@hotmail.com>
>>> wrote:
>>>
>>> >
>>> >Fred wrote:
>>> >> On 28 Apr 2006 08:29:38 -0700, "an old freind"
>>> >> <kb9rqz-ars@hotmail.com> wrote:
>>> >>
>>> >> >
>>> >
>>> >> >> You said a mouthful. Oh and I agree with you. It just aint
>>> >> >> natural!
>>> >> >funny it occours outside of man and outside the primates in nature
>>> >> >all
>>> >> >the time
>>> >>
>>> >> So you are as stupid as a monkey or a dog?
>>> >
>>> >no you point?
>>> >
>>> >it looks like you are here to push your religous agenda and nothing to
>>> >with radio
>>>
>>> If you were smart enough to read you would find out that I do not
>>> believe in DOG.
>>I never stated you did
>>> I am just picking on you for being a militant pro-gay
>>> that is trolling Usenet groups looking for acceptance of his sick
>>> lifestyle.
>>
>>hardly you don't know what miliatant is
>>
>>you are psuhing you milltant religionous agenda where it desn't belong.

>>you have the right to do that, as I have the right to post what I see
>>fit
>>your problem is that you can't face the fact I have the same rights as
>>you do
>>
>>you want an end to defense of My Bisexaulity it can be had easiily
>>
>>you mustb(and the rest must refrain from atacking ti and refrain from
>>using the cry or "faggot" as an arguement in the NG
>>
>>it is that simple but the likes of you have proven you can't do it
>
> How many times do I have to tell you that I am an atheist? You can
> support and defend your faggotry all you want, but this is not the
> forum for that sick shit. You have no right to harass people in
> rec.radio.cb or any other newsgroup so suck on that you stupid turd
> pusher.

And to this day he has yet to make an on topic post. I'll bet he was given the answers while taking his ham test and still failed the first three times. Makes me wonder if he even has radio equipment.

>

If passing a Ham test was predicated upon correct spelling, he'd be a washout.
Not only can he not spell, but he cannot comprehend what he reads.

1693. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 22:28:20 UTC
From: Brian Murrey <brian@iquest.net>
Message-ID: <8MR4g.10945$sq5.2758@newsread2.news.atl.earthlink.net>
Source record: 60235

Same here..in the attic...works great...even at 50w.

73 de KB9BVN

--
==========
Radio Amateurs - Fill your junk box, from my junkbox!
http://www.hamradparts.com
73 de KB9BVN
==========

"Buck" <not@this.time> wrote in message
news:4tjt42lg6k5ustfmiljfkpiqdle084d0iq@4ax.com...
> On 25 Apr 2006 16:43:11 -0700, jgboyles@aol.com wrote:
>
> >
> >jimbo wrote:
> SNIP
> >> jimbo - AJ7IM
> >
> > Hi Jimbo, it has been my experience, and everybody else's that an
> >indoor or attic J-pole is unpredictable. A high impedance end fed
> >antenna in an attic environment will be hard to predict. Moving it one
> >foot can effect things.
> > You might consider the SO-239 ground plane. It can be built and
> >tuned in 30 minutes, is 50 ohms, so it will not be so concerned about
> >its environment. Likely you could not tell a difference in performance
> >from a J-pole especially if they are both in the attic.
> > Oh yes, the standard-if the SWR is below 3.0, don't worry about it.
> >Gary N4AST
>
>
> I started building dipole antennas. they can be mounted horizontal or
> vertical and easily moved around. I use cpvc with a dipole wire
> inside and a coax-choke balun. They work quite well.
>
> Just another option.
> --
> 73 for now
> Buck
> N4PGW

1694. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 22:34:54 UTC
From: Buck <not@this.time>
Message-ID: <2cq752thr268ojtdknkqe9vae80mq2lk4a@4ax.com>
Source record: 60236

On Sat, 29 Apr 2006 14:19:33 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Buck wrote:
>> I have used a Hustler on 75 before. I was definitely
>> a weak signal station. I can only imagine that a tuned whip would
>> generate similar results, or more likely, poorer results.
>
>Following are the summarized normalized combined results
>of three 75m mobile antenna shootouts held in California
>during the 1980's.
>
>0 dB - (Reference) Bugcatcher or Screwdriver with large top hat
>
>-2 dB - Bugcatcher or Screwdriver with no top hat
>
>-5 dB - 8.5' whip with bugcatcher base loading coil
>
>-6 dB - Bugcatcher with Stainless Steel Loading Coil
>
>-8 dB - Hustler High Power system
>
>-9 dB - Outbacker
>
>-12 dB - Hamstick
>
>-12 dB - 11.5' whip with SGC-230 autotuner
>
>-14 dB - 8.5' whip with SGC-230 autotuner (estimated, not measured)

Thank you, that is good to see.

--
73 for now
Buck
N4PGW

1695. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 22:37:46 UTC
From: Buck <not@this.time>
Message-ID: <ohq7529lbgjk7tvvv0shpit1nd87nhbmeq@4ax.com>
Source record: 60237

SNIP

>This is another instance of not believing everything - but it at least
>this time it offers a nugget of truth. This is the spin of the wheel
>of chance I mentioned above. Don't fret so much and simply try it in
>the driveway. Open the tuner, fire up the rig and tune for lowest
>SWR. Let go of the key and touch components to see how hot it's
>gotten. You don't need infra-red analysis and toolkit of thermocouple
>probes to obtain a good understanding of the situation. Repeat on all
>bands.
>
>73's
>Richard Clark, KB7QHC
Thanks, After reading all this, I will be going to get the antenna. I
have a mount on side of the van. i will re-wire it so it goes to an
SO-239 connector so I can mount the tuner next to the antenna for the
test. if all is well, I will get a hole kit and set it up on the roof.

I like the bug-catcher idea, but I don't have the parts :(.

Thanks, again,
Buck

--
73 for now
Buck
N4PGW

1696. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 22:39:42 UTC
From: Buck <not@this.time>
Message-ID: <voq752hs930lltffm4kd527ikiag62hvt6@4ax.com>
Source record: 60238

On Sat, 29 Apr 2006 15:40:50 GMT, Bob <warthog9@pacbell.net> wrote:

>Used various SGC tuners and Icom AH-4. Also tried both of SGCs dual
>loaded whips with varying results. The longer two piece unit worked
>surprisingly well 80-10m years ago when conditions were better, even had
>some fantastic 160m mobile contacts with it. The single 7ft version
>lacks on 40 and especially 80m compared to the two piece whip but
>compared to an unloaded 102ï¿½ CB whip, it makes the CB whip look like a
>dummy load on 40m and below. This is all with an SGC-230 feeding them.
>Bob
>
How long is the two piece whip?
--
73 for now
Buck
N4PGW

1697. Re: Mobile Antenna Question..

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 22:41:37 UTC
From: Kevin & Natalia <sparc_man@hotmail.com>
Message-ID: <1146350351.336138@ftpsrv1>
Source record: 60239

Brian,

Also check out the Outbacker mobile antenna, I use one of these on my Toyota Landcruiser, and works a dream.
Whatever antenna you decide to get make sure that it is in free space as much as you can, this helps cut down car reflection, which is cases by metal interaction.

I made a robust mount on the spare-wheel frame that hangs off the back of the truck, and this made the job easier. As for mag-mounts, take into full account the speed you may do, and the wind resistance the new antenna will produce. Have heard of operators using a mag-mount for even a smaller antenna, only to see in the mirror, it hanging or laying over the back.

Most mobile antennas are about 1.4mtrs up, my outbacker is approx 1.6mtrs from the base to tip, and this is another 1.2mtrs off the ground.

I can send you a photo if you wish, and helps explain my setup?

All the best, willing to help if you have any further questions.

Kevin, ZL1KFM.

"Brian Murrey" <brian@iquest.net> wrote in message
news:XkR4g.10940$sq5.5363@newsread2.news.atl.earthlink.net...
>I have a 2004 Ford Tarus SES and I was thinking about putting a mobie HF
> antenna on it so I can play radio while driving from city to city doing my
> job.
>
> I have never had a mobile HF rig so I have some questions.
>
> First...is there a website, newsgroup, or some other resource that might
> have some HF antenna mounting info about my particular car?
>
> I'm thinking about using a hamstick or a Workman Mobile from Hamstop on
> eBay. I guess the big gnarley triple mag mount would work, but I was also
> thinking about a license plate mounting kit....any suggestions?
>
> How tall are these types of antennas for 40m, and 20m? My rig is a KX1
> and
> it has 20, 30, and 40 meter capability.
>
> Thanks
>
> 73 de KB9BVN
>

>
> --
> ==
> Radio Amateurs - Fill your junk box, from my junkbox!
> http://www.hamradparts.com
> 73 de KB9BVN
> ==
>
>
>

1698. Wanted - NZ Huttons HF Antenna Mobile Base Required.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 22:44:20 UTC
From: Kevin & Natalia <sparc_man@hotmail.com>
Message-ID: <1146350483.890752@ftpsrv1>
Source record: 60240

Hi All,

I am in the need of a NZ made Huttons HF antenna mobile base, preferably the tilt-over type.
My last one was lost when my car was stolen, and the mount still attached.

If anyone has one that I might get/purchase, could you please contact me directly.

Regards

Kevin, ZL1KFM

1699. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 22:45:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1257r4cqp26dsfa@corp.supernews.com>
Source record: 60241

Allisonnospam@nouce.bellatlantic.net wrote:
>
> Verticle polarization has less power headed toward space (up for a
> H-dipole) and still benefits from ground effects. The model for free
> space nets the same gain as dipole. The problem with free space is
> my backyard has dirt in it.

It appears you're comparing a half wave horizontal dipole with a (half wave) J pole. Ground does have a major impact on the performance of the antennas, but the reflection results in loss of a lot of signal power if the wave is at a low angle and vertically polarized. Horizontally polarized waves, in contrast, reflect with very little loss at low angles. I haven't tried modeling it, but would guess that in a typical line-of-sight path where there can be one ground reflection in addition to the direct path, the signal would go through fades and reinforcements as you varied the antenna height. Because of the lower loss of horizontally polarized reflections, the fades would be deeper and the reinforcements stronger with horizontal polarization. On the average, the horizontal would be better (that is, the average signal for all heights would be stronger) because no significant loss is incurred in the reflection. But getting a decent signal would be much more of a gamble.

Those looking at modeling results from EZNEC or similar programs should realize that the far field analysis isn't a good simulation of this situation. Probably the best way to model it would be to model two antennas, one at each location, over ground. Put a source in one antenna (the transmitting antenna) and a conjugately matched load at the feedpoint of the other (the receiving antenna). Then look at the power delivered to the load for various receiving antennas. There's a practical limit to how far apart the antennas can be before numerical limitations are reached, but with double precision calculations they can be quite a distance apart.

The conventional J pole with half wavelength radiator has the same gain as a vertical half wave dipole, again assuming you can keep the current on the outside of the feedline to a low value for both antennas.

>
> However for free space groundplane compared to free space verticle
> halfwave there is gain. Better radiation angle as well.

A quarter wavelength vertical ground plane antenna has the same gain and pattern as a half wavelength vertical dipole, and the same as a J pole (if you can keep the current on the outside of the J pole feedline to a reasonably small value). This is true whether in free space or over ground, and it can be demonstrated by theory, measurement, and modeling.

Roy Lewallen, W7EL

1700. Re: Mobile Antenna Question..

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 22:47:41 UTC
From: Buck <not@this.time>
Message-ID: <fvq752lkqqkr4u40311kcf1urs3sfhkbbv@4ax.com>
Source record: 60242

On Sat, 29 Apr 2006 21:59:19 GMT, "Brian Murrey" <brian@iquest.net>
wrote:

>I have a 2004 Ford Tarus SES and I was thinking about putting a mobie HF
>antenna on it so I can play radio while driving from city to city doing my
>job.
>
>I have never had a mobile HF rig so I have some questions.
>
>First...is there a website, newsgroup, or some other resource that might
>have some HF antenna mounting info about my particular car?
>
>I'm thinking about using a hamstick or a Workman Mobile from Hamstop on
>eBay. I guess the big gnarley triple mag mount would work, but I was also
>thinking about a license plate mounting kit....any suggestions?
>
>How tall are these types of antennas for 40m, and 20m? My rig is a KX1 and
>it has 20, 30, and 40 meter capability.
>
>Thanks
>
>73 de KB9BVN

I have been using a quad-magnet mount with an Antenna Speciallists
antenna (resembles the ham stick) very successfully. The antenna has
been mounted on the roof where I used 75, 40 and 20 meters. However,
being less careful at the time, I lost the 75 meter antenna when I hit
a low bridge at 35 MPH. (something to think about.)

The antennas worked very well, but I got tired of changing them. I
added a mount from under the bumper of my car and was able to use 20
meters there, but the low bands didn't drop SWR below 2:1 so I only
used them on the roof. I have made numerous DX and other contacts
from the roof mounted antennas including an italian station on 40
meters. Once I got two antennas working, 20 on the bumper and 40 on
the roof, I was happy for a while. Now I want more than two bands and
I would like to cover a wider bandwidth, so I have another thread
discussing my latest attempt at a mobile antenna idea.

Good luck, and let us know.

Buck
N4PGW
--
73 for now
Buck

N4PGW

1701. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 23:16:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3us752p4jsfcvrtrcaele4lpiskmfemgi3@4ax.com>
Source record: 60243

On 29 Apr 2006 14:17:20 -0700, w8ji@akorn.net wrote:

>So you don't want to say, or can't say in a few words?
>
GROAN

1702. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 23:32:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <j8t752tg9vtqpobesh6rp9r5k8ugmlubo6@4ax.com>
Source record: 60244

On Sat, 29 Apr 2006 18:37:46 -0400, Buck <not@this.time> wrote:

>I like the bug-catcher idea, but I don't have the parts :(.

You don't have any WIRE? This is preposterous.

You split the vertical rise with an insulator and wind WIRE to fill the gap. End of story. Your job is to make it mechanically sound at 70MPH and thumb your nose at what may be called Q here.

You want a bigger coil? Have dreams of that Q that marks status here?

Wrap a coffee can with several many wraps of paper so it clears all seams and beads. Wrap turns of wire around the can/paper. Add epoxy in nice neat lines along six lengths around the circumference (use modeling or florist clay to build dams). Wait a couple of days for it to cure. Take out the can and paper. Clean off the clay. Paint it red, white, and blue!

What can 40 or 50 feet of wire, clay, three colors of paint, and an ounce of epoxy cost? $5?

73's
Richard Clark, KB7QHC

1703. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-29 23:49:31 UTC
From: Bob <warthog9@pacbell.net>
Message-ID: <fYS4g.18624$4L1.16650@newssvr11.news.prodigy.com>
Source record: 60245

About 8 or 8 1/2ft.
Bob

Buck wrote:
> On Sat, 29 Apr 2006 15:40:50 GMT, Bob <warthog9@pacbell.net> wrote:
>
>> Used various SGC tuners and Icom AH-4. Also tried both of SGCs dual
>> loaded whips with varying results. The longer two piece unit worked
>> surprisingly well 80-10m years ago when conditions were better, even had
>> some fantastic 160m mobile contacts with it. The single 7ft version
>> lacks on 40 and especially 80m compared to the two piece whip but
>> compared to an unloaded 102ï¿½ CB whip, it makes the CB whip look like a
>> dummy load on 40m and below. This is all with an SGC-230 feeding them.
>> Bob
>>
> How long is the two piece whip?

1704. Re: Mobile Antenna Question..

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 01:10:57 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <7k2852dl08otp53phggp9nbi9rkg92q0cg@4ax.com>
Source record: 60246

ORIGINAL MESSAGE:

On Sat, 29 Apr 2006 21:59:19 GMT, "Brian Murrey" <brian@iquest.net>
wrote:

>I have a 2004 Ford Tarus SES and I was thinking about putting a mobie HF
>antenna on it so I can play radio while driving from city to city doing my
>job.

********** REPLY SEPARATOR **********

Fords of any kind are notorious for noise, but if you are determined
to go through with it:

1. A triple mag mount will work fine with HamStick antennas. I use an
IronHorse one and I guarantee that will not come off in the wind. I
can't hardly get it off with a pry bar.
2. Hamsticks are excellent on 20-10 meters and pretty good on 40.
3. Not so good on 80.
4. I don't know what an "SES" is, but if it's shaped like a regular
car (not an SUV) put the triple mag mount on the trunk. No need to put
it on the roof unless you like people staring at you.
5. Run a separate ground wire from the base of the mag mount to the
chassis of the car. Don't rely on the capacitance of the mag mount,
especially on the lower freqs. On ten meters and possibly 15 you might
get away with it, but on 20 and lower freqs your SWR will probably be
high. Use some forethought and make the ground wire as short as
possible, no more than about six or maybe eight inches.
6. Next time get a Chrysler product. :-)

Also, there is a mobileham forum on www.eham.net which may be a source
of more info oriented specifically toward mobiling.

Have fun!

Bill, W6WRT

1705. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 01:22:11 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <7jU4g.77642$dW3.22733@newssvr21.news.prodigy.com>
Source record: 60247

n3ox.dan@gmail.com wrote:
> If the language in the Corum paper bothers you, check the math.
>
> The Corum paper gives a mathematical solution of Maxwell's equations
> for a helix that allows you to answer the questions that have been
> ongoing in this thread.
>
> I'm not going to claim that I worked through the solution myself. I
> did read it and try to understand the process. It looks just like what
> I've done over and over again in electromagnetic theory courses. You
> write down the wave equation, the boundary conditions, and you solve.
>
> The geometry of the problem leads to lots of bessel functions and the
> necessity to numerically solve the resulting equations to find the
> solutions in the middle ground between a lumped circuit coil and a TWT
> helix.
>
> I feel like this is typical of physical problems that have a limiting
> case at either end. If you go to infinite propagation speed, or a coil
> that is very very short compared to a wavelength, you get a lumped
> circuit.
>
> If you go to a very long helix with respect to a wavelength, the wave
> on the helix goes round and round the turns.
>
> In the middle, the Corum paper describes the situation in mathematical
> detail.
>
> Both crackpots and respectable scientists can use complicated terms.
> The former use them to obscure unverifiable claims, the latter use them
> to try to put a concise name on something that has a complicated
> mathematical description.
>
> Throw all the words out of the Corum paper, if you like. Let's look
> only at the solution. Is there anything wrong with the mathematical
> solution to the wave equation on the helix presented there? Is the
> solution in fact applicable to a GIVEN ham antenna loading coil? Can
> we use it to predict the difference in current at either end of a
> loading coil for a given ham antenna loading coil?
>
> I was going to write "typical" ham antenna loading coil, but I realized
> that's a trap. You can't take the solution in the Corum paper, reduce
> it to a rule of thumb for the "typical" ham loading coil, and then use
> that rule of thumb to make quantitative predictions about a particular

> coil in a particular configuration!
>
> Does the solution applicable to all helix sizes and pitches (the
> transcendental equation, equation 28 for the constant tau) and the
> equation for the velocity of propagation along the axis of the coil
> (phase velocity = omega/beta) give the correct delay or not?
>
> I think equation 28 can be solved in Matlab or Mathematica or something
> else. I haven't quite figured out if Figure 1 uses approximations or
> if it is numerical solutions of equation 28. If it's the latter, you
> can just use the figure.
>
> 73,
> Dan
> N3OX
>

Consider your normal mobile antenna with a large loading coil. Now,
in your mind's eye, replace the coil with a cylinder. Now, compute the
cutoff frequency for that cylinder for either a TE or TM mode and see
how close you can get to 3.75 Mhz. Of course, if your waves are slow
enough, you should be able to cram something in there, but you have to
show experimentally both that you can do it, and how you can do it.
73,
Tom Donaly, KA6RUH

1706. Re: Mobile Antenna Question..

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 02:24:27 UTC
From: Brian Murrey <brian@iquest.net>
Message-ID: <vdV4g.11053$sq5.7466@newsread2.news.atl.earthlink.net>
Source record: 60248

Thanks for all the info guys. I think I am going with a 20m and a 40m Hamstick type of antenna. I will most likely be mounting it to the Taurus (which is a car and not a SUV) with one of those license plate mounting kits. I am making the mounting kit in the metal shop next week. It will be stainless steel and about twice as thick as the one Lakeview sells. I can get a few very good grounds with the license plate mount.

I will then run some 10 ga stranded wires to the battery and fuse both sides near the battery. I will make a connector cable for my KX1 so it mates up OK. The KX1 is only 4w out so I could probably run it off the cigarette lighter...which I might do anyway. I think the cig lighter is rated at 10A so should be over kill.

I am also making a mount for my 2004 Durango so I can move the antenna and rig between vehicles. I have ordered a few of the quick disconnect joints for the mount. I will probably use RG8X for the antenna feed line. The KX1 has a built in antenna tuner.

73 de KB9BVN

--
==========
Radio Amateurs - Fill your junk box, from my junkbox!
http://www.hamradparts.com
73 de KB9BVN
==========

1707. A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 03:24:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <mrKdnUgqFMsZs8nZRVnyjg@bt.com>
Source record: 60249

I havn't much idea on what the present argument is all about. And I
have no wish to take sides.

But -

If Line-1 has impedance Zo1 and is a fractional wavelength L1 long,

and Line-2 has impedance Zo2 and is a fractional wavelength L2 long,

then when both lines are connected together and are brought into
so-called 1/4-wave resonance by pruning the length of one of the
lines, it is IMPOSSIBLE for L1 + L2 to equal 1/4-wavelength or 90
degrees.

There are ALWAYS some degrees "missing" - depending on the ratio
Zo1/Zo2.

Except only when Zo1 = Zo2 will L1 + L2 total 90 degrees.

Can be proved mathematically without invoking standing or reflected
waves. You just have to believe in mathematics.

Line-1, of course, is a loading coil and Line-2 is a whip.

I hope this settles an argument.

For a demonstration download program TWOLINES from website below.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

1708. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 03:38:30 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146368310.284179.91600@j33g2000cwa.googlegroups.com>
Source record: 60250
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Terry Two Shoes wrote:
> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in message
> news:1257hrlls8jm694@corp.supernews.com...
> "Fred" <freddyr1928@ll.net> wrote in message
> news:cff752ptrbujv3st3o1r30ececm1f3oku4@4ax.com...
> > On 29 Apr 2006 10:51:13 -0700, "an_old_friend" <konstans@hotmail.com>
> > wrote:

> If passing a Ham test was predicated upon correct spelling, he'd be a
> washout.

but spelling corect on the fly is not requirement

1709. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 03:38:33 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146368313.361075.164250@i40g2000cwc.googlegroups.com>
Source record: 60251
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 29 Apr 2006 10:51:13 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:
>
> >
> >Fred wrote:
> >> On 28 Apr 2006 17:47:23 -0700, "an_old_friend" <konstans@hotmail.com>
> >> wrote:
> >>
> >> >
> >> >Fred wrote:
> >> >> On 28 Apr 2006 08:29:38 -0700, "an old freind"
> >> >> <kb9rqz-ars@hotmail.com> wrote:
> >> >>
> >> >> >
> >> >
> >> >> You said a mouthful. Oh and I agree with you. It just aint natural!
> >> >> >funny it occours outside of man and outside the primates in nature all
> >> >> >the time
> >> >>
> >> >> So you are as stupid as a monkey or a dog?
> >> >
> >> >no you point?
> >> >
> >> >it looks like you are here to push your religous agenda and nothing to
> >> >with radio
> >>
> >> If you were smart enough to read you would find out that I do not
> >> believe in DOG.
> >I never stated you did
> >> I am just picking on you for being a militant pro-gay
> >> that is trolling Usenet groups looking for acceptance of his sick
> >> lifestyle.
> >
> >hardly you don't know what miliatant is
> >
> >you are psuhing you milltant religionous agenda where it desn't belong.
> >you have the right to do that, as I have the right to post what I see
> >fit
> >your problem is that you can't face the fact I have the same rights as
> >you do
> >

> >you want an end to defense of My Bisexaulity it can be had easiily
> >
> >you mustb(and the rest must refrain from atacking ti and refrain from
> >using the cry or "faggot" as an arguement in the NG
> >
> >it is that simple but the likes of you have proven you can't do it
>
> How many times do I have to tell you that I am an atheist?
at least once and

then I must ask why an athesist would invoke god

you have real trouble with your words
>You can
> support and defend your faggotry all you want,...
indeed that is my right nice of you to admit that

>.... but this is not the
> forum for that sick shit.
it is when the other poster try to maintian the mere fact i am bi is
reaosn to exclude fro the forum indeed you make my post in defense of
my right
>You have no right to harass people in
> rec.radio.cb or any other newsgroup so suck on that you stupid turd
> pusher.

I do not harrass anybody here

you do OTOH

1710. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 03:47:15 UTC
From: Buck <not@this.time>
Message-ID: <eoc852lf6ct9qtaug6rcmsfehl7nio2li2@4ax.com>
Source record: 60252

On Sat, 29 Apr 2006 16:32:50 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Sat, 29 Apr 2006 18:37:46 -0400, Buck <not@this.time> wrote:
>
>>I like the bug-catcher idea, but I don't have the parts :(.
>
>You don't have any WIRE? This is preposterous.
>
>You split the vertical rise with an insulator and wind WIRE to fill
>the gap. End of story. Your job is to make it mechanically sound at
>70MPH and thumb your nose at what may be called Q here.
>
>You want a bigger coil? Have dreams of that Q that marks status here?
>
>Wrap a coffee can with several many wraps of paper so it clears all
>seams and beads. Wrap turns of wire around the can/paper. Add epoxy
>in nice neat lines along six lengths around the circumference (use
>modeling or florist clay to build dams). Wait a couple of days for it
>to cure. Take out the can and paper. Clean off the clay. Paint it
>red, white, and blue!
>
>What can 40 or 50 feet of wire, clay, three colors of paint, and an
>ounce of epoxy cost? $5?
>
>73's
>Richard Clark, KB7QHC

LOL I haven't looked into that yet. I will. Thanks.

--
73 for now
Buck
N4PGW

1711. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 03:49:20 UTC
From: Buck <not@this.time>
Message-ID: <arc852decb7b87qsdm5hvfg04obhs8hgmj@4ax.com>
Source record: 60253

On Sat, 29 Apr 2006 23:49:31 GMT, Bob <warthog9@pacbell.net> wrote:

>About 8 or 8 1/2ft.
>Bob
>
>Buck wrote:
>> On Sat, 29 Apr 2006 15:40:50 GMT, Bob <warthog9@pacbell.net> wrote:
>>
>>> Used various SGC tuners and Icom AH-4. Also tried both of SGCs dual
>>> loaded whips with varying results. The longer two piece unit worked
>>> surprisingly well 80-10m years ago when conditions were better, even had
>>> some fantastic 160m mobile contacts with it. The single 7ft version
>>> lacks on 40 and especially 80m compared to the two piece whip but
>>> compared to an unloaded 102i¿½ CB whip, it makes the CB whip look like a
>>> dummy load on 40m and below. This is all with an SGC-230 feeding them.
>>> Bob
>>>
>> How long is the two piece whip?
Is there more to the two-piece than just two pieces? Is it a loaded
fiberglass whip with a stinger, or two solid pieces of wire making up
one long stinger. If so, the cb whip is longer, if you have a loaded
section, the loaded section is longer.

--
73 for now
Buck
N4PGW

1712. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 03:54:36 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146368199.959550.250420@u72g2000cwu.googlegroups.com>
Source record: 60254
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 29 Apr 2006 10:51:13 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:
>
> >
> >Fred wrote:
> >> On 28 Apr 2006 17:47:23 -0700, "an_old_friend" <konstans@hotmail.com>
> >> wrote:
> >>
> >> >
> >> >Fred wrote:
> >> >> On 28 Apr 2006 08:29:38 -0700, "an old freind"
> >> >> <kb9rqz-ars@hotmail.com> wrote:
> >> >>
> >> >> >
> >> >
> >> >> >> You said a mouthful. Oh and I agree with you. It just aint natural!
> >> >> >>funny it occours outside of man and outside the primates in nature all
> >> >> >>the time
> >> >>
> >> >> So you are as stupid as a monkey or a dog?
> >> >
> >> >>no you point?
> >> >
> >> >>it looks like you are here to push your religous agenda and nothing to
> >> >>with radio
> >>
> >> If you were smart enough to read you would find out that I do not
> >> believe in DOG.
> >>I never stated you did
> >> I am just picking on you for being a militant pro-gay
> >> that is trolling Usenet groups looking for acceptance of his sick
> >> lifestyle.
> >
> >hardly you don't know what miliatant is
> >
> >you are psuhing you milltant religionous agenda where it desn't belong.
> >you have the right to do that, as I have the right to post what I see
> >fit
> >your problem is that you can't face the fact I have the same rights as
> >you do
> >

> >you want an end to defense of My Bisexaulity it can be had easiily
> >
> >you mustb(and the rest must refrain from atacking ti and refrain from
> >using the cry or "faggot" as an arguement in the NG
> >
> >it is that simple but the likes of you have proven you can't do it
>
> How many times do I have to tell you that I am an atheist?
at least once and

then I must ask why an athesist would invoke god

you have real trouble with your words
>You can
> support and defend your faggotry all you want,...
indeed that is my right nice of you to admit that

>.... but this is not the
> forum for that sick shit.
it is when the other poster try to maintian the mere fact i am bi is
reaosn to exclude fro the forum indeed you make my post in defense of
my right
>You have no right to harass people in
> rec.radio.cb or any other newsgroup so suck on that you stupid turd
> pusher.

I do not harrass anybody here

you do OTOH

1713. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 03:59:46 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <SCW4g.71096$H71.2568@newssvr13.news.prodigy.com>
Source record: 60255

Reg Edwards wrote:
> I havn't much idea on what the present argument is all about. And I
> have no wish to take sides.
>
> But -
>
> If Line-1 has impedance Zo1 and is a fractional wavelength L1 long,
>
> and Line-2 has impedance Zo2 and is a fractional wavelength L2 long,
>
> then when both lines are connected together and are brought into
> so-called 1/4-wave resonance by pruning the length of one of the
> lines, it is IMPOSSIBLE for L1 + L2 to equal 1/4-wavelength or 90
> degrees.
>
> There are ALWAYS some degrees "missing" - depending on the ratio
> Zo1/Zo2.
>
> Except only when Zo1 = Zo2 will L1 + L2 total 90 degrees.
>
> Can be proved mathematically without invoking standing or reflected
> waves. You just have to believe in mathematics.
>
> Line-1, of course, is a loading coil and Line-2 is a whip.
>
> I hope this settles an argument.
>
> For a demonstration download program TWOLINES from website below.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

And what is line three and line four?
73,
Tom Donaly, KA6RUH

1714. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 04:55:45 UTC
From: Bob <warthog9@pacbell.net>
Message-ID: <lrX4g.10205$Lm5.2792@newssvr12.news.prodigy.com>
Source record: 60256

I believe the SGC whip is continuously loaded with a tapered pitch over a large diameter fiberglass core and also has a straight internal shorter section for higher freqs. No top stinger, just big, thick, ugly black heatshrink coated. I think it resonates around 13 and 22MHz. Look up an SG-303 in Google.
Bob

Buck wrote:

>>> How long is the two piece whip?
> Is there more to the two-piece than just two pieces? Is it a loaded
> fiberglass whip with a stinger, or two solid pieces of wire making up
> one long stinger. If so, the cb whip is longer, if you have a loaded
> section, the loaded section is longer.
>

1715. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 04:58:58 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <muX4g.7464$BS2.3329@newsread1.news.pas.earthlink.net>
Source record: 60257

Highland Ham wrote:
==========
> To be UV resistant the plastic should be black ,eg it contains carbon
> black (like soot) If ,in general, plastic material is exposed to sun
> light it deteriorates over time (especially when pigments are involved).
> Example: coloured polypropylene rope .
> If that material would be black ,it would have a very long life.
> But then the sales of this material would decline ;)), hence you only
> find coloured polypropylene rope ,blue ,orange ,red , yellow ,etc ,at
> least in the UK.
>
> Here in the north of Scotland (no sun in abundance) I use
> (blue)polypropylene guys on a 13m (40ft)mast ,which have to be replaced
> every 7 -8 years .But it is cheap.

I question that 7-8 year figure. Some Finnish friends put up a "temporary" tower with a tribander at the OH0Z site in the 1990s. They used new polypropylene ski rope. I went out one weekend and there lay the tower and tribander, victims of a guy rope failure. I'd NEVER use the stuff for guying or antenna supports.

> Polyester rope as used on sailing boats is UV resistant (even without
> carbon black) and would last 30+ years ,but it is relatively expensive.

Polyester is excellent material. There is a polyester rope sold under the "Synthetic Textiles" name here in the U.S. which is simply great. It is braided, not twisted. The inner core is white. There is an outer braid which is black. I have some which is fourteen years old. It is still strong and flexible.

> Plastic antenna insulators (sold in the UK) are usually black , so are
> the outdoor balun enclosures and plastic insulators on Yagi antennes.

We're now seeing some white plastic insulators here. I tried some in the sun of Africa. They looked like they were pitted and deteriorating after three years in the sun of Botswana. I either use ceramics or make my own out of 1/2" thick clear plexiglass sheet or 3/4" plexi rod. That yellows but doesn't otherwise seem to deteriorate.

Dave Heil K8MN

1716. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 05:05:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zAX4g.10206$Lm5.7014@newssvr12.news.prodigy.com>
Source record: 60258

Reg Edwards wrote:
> If Line-1 has impedance Zo1 and is a fractional wavelength L1 long,
>
> and Line-2 has impedance Zo2 and is a fractional wavelength L2 long,
>
> then when both lines are connected together and are brought into
> so-called 1/4-wave resonance by pruning the length of one of the
> lines, it is IMPOSSIBLE for L1 + L2 to equal 1/4-wavelength or 90
> degrees.

If we have three sections and Z02 > Z01,

---Z01---+---Z02---+---Z01---

the first impedance discontinuity causes a phase
shift in the *opposite* direction from the second
impedance discontinuity. That's why moving a loading
coil from a base-loaded position to a center-loaded
position requires more degrees of coil.

W8JI has been trying to make a big deal out of that
fact but it is just simple physics.
--
73, Cecil http://www.qsl.net/w5dxp

1717. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 05:19:54 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445448fa$0$1018$39cecf19@news.twtelecom.net>
Source record: 60259

Tom Donaly wrote:

> Beware of academics who use phrases such as "anisotropically conducting
> cylindrical boundary," "helically disposed surface waveguide," and
> "voltage magnification by standing waves." These are just figures of
> speech. Some academics - fractenna comes to mind - get so carried away
> with their ideas, they'll try anything to justify them, including the
> use of nounspeak and polysyllabic jargon. Real scientists and engineers
> don't have to use such tactics to make a point.
> 73,
> Tom Donaly, KA6RUH

Beware of academics who use "real physical based equations" as they may
mislead you because they are based in reality.

tom
K0TAR

1718. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 06:57:19 UTC
From: w8ji@akorn.net
Message-ID: <1146380239.089435.216750@j33g2000cwa.googlegroups.com>
Source record: 60260

Tom Donaly wrote:
> Consider your normal mobile antenna with a large loading coil. Now,
> in your mind's eye, replace the coil with a cylinder. Now, compute the
> cutoff frequency for that cylinder for either a TE or TM mode and see
> how close you can get to 3.75 Mhz. Of course, if your waves are slow
> enough, you should be able to cram something in there, but you have to
> show experimentally both that you can do it, and how you can do it.
> Tom Donaly, KA6RUH

TE, TM, or TEM a small loading coil cannot behave very much like a transmission line.

If you read the Corum paper carefully, you see he clearly states it is an approximation or solution for a coil under the very special condition of being self-resonant.

He is working on Tesla coils, not loading coils. He is working with coils that have essentially no termination and that actuallly behave like a series of L networks with high reactance shunt C and high reactance series L.

Worse yet, we have one person who is trying to use a large diameter helice with wide turn spacing that is large enough to support TEM waves as a comparison to a tiny fraction of a wavelength dieameter and length inductor that has relatively close turn spacing and tight coupling from turn to adjacent turn.

Unless we do something to cause the radial electric field to be very intense and support significant displacement currents, all the standing waves in the world external to the won't make a coil behave like a linear conductor.

Notice also how Cecil misquotes to make a point. The Vf I measured on 80 meters for a large bug-catcher style coil was actually .5 compared to spatial length, not 1.0

On the other hand Cecil has measured virtually nothing, Yuri has measured nothing, and Harrison probably hasn't even owned a bug catcher coil being a technician class license holder.

It's easy to dismiss measurements when you have not done a thing on your own except talk.

73 Tom

1719. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 07:11:36 UTC
From: Mr Fed UP <mrfedup@bellsouth.net>
Message-ID: <tqZ4g.26138$4O2.21774@bignews7.bellsouth.net>
Source record: 60261

This has nothing to do with AMATEUR. ANTENNA.....
TAKE THIS JUNK SOME PLACE ELSE AND
GO SCREW A HOT TOWER

"stananger" < stananger@********.***> wrote in message
news:EuCdncdjBYGsf8_ZRVn-hA@hawaiiantel.net...
> May 1st 2006, Civil War Begins
>
> On May 1st 2006 The "Great American Boycott" also known as the "Day
> without
> immigrants" is scheduled to occur. Participant's stated goals are a
> general
> strike, No Work, No School, No Sales, and No Buying. These people want to
> shut down individual cities, all across the nation, thereby impacting the
> country as a whole.
> Make no mistake about it, this is not just simple protesting, protesting
> with the goal of causing financial harm is Economic Terrorism plain and
> simple - and those people who participate are economic terrorists.
> By shutting down certain cities, or even portions of cities, these
> protestors will be :
> Keeping children out of school,
> Hampering the abilities of local law enforcement to enforce the law,
> Hampering the abilities of first responders to respond to car accidents,
> fires, people having heart attacks, and hampering their ability to
> transport them to the hospital.
> Hampering the abilities of local mass transit systems to operate properly.
> Causing financial harm to local businesses iregardless of whether or not
> those businesses have harmed them, resulting in a nationwide economic
> impact.
> Advocating the breaking of our laws by demanding, yes demanding, that
> illegal immigrants be given amnesty.
>
>
> ter�ror�ism -"The unlawful use or threatened use of force or violence by
> a
> person or an organized group against people or property with the intention
> of intimidating or coercing societies or governments, often for
> ideological
> or political reasons." - American Heritage Dictionary of the English
> Language, Fourth Edition
> How can you fight back?
> Ensure that your children go to school, and stay there on this day.
> Purposely go and buy products and services in those cities affected by the

> protestors - gas up your car, go see a movie, go grocery shopping, buy a
> little more than you would have any other day. Counter their 'protest'
> with
> a positive economic impact in those areas affected.
> Perhaps you might also consider making a donation to those organizations
> seeking to secure our borders on this day as well. Show these terrorists
> that you can and will fight back!
> While the current situation is one of mass irresponsible action, causing
> financial harm across the nation, it will inevitably escalate into
> violence
> and deaths if these sorts of activities continue.
> Does this constitute a civil war? Perhaps not yet, but its clearly heading
> in that direction, this may just be the first battle.

1720. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 07:11:48 UTC
From: w8ji@akorn.net
Message-ID: <1146381107.949924.109660@u72g2000cwu.googlegroups.com>
Source record: 60262

W8JI wrote:
> > So what current is it you are measuring? Charges cannot flow two
> > directions at the same time at the same point in a system. There cannot
> > be drift velocity in two dorections at the same time.

Cecil Moore wrote:
> Just as two water waves can flow in opposite directions using the
> same water molecules, two EM waves can flow in opposite directions
> using the same electrons.

That's where you are wrong Cecil.

While the effects of energy and reflection of current and voltage can
be considered as a real actionl, current actually can only flow one
direction at one time at one point in one conductor . There is no other
way.

You are confusing a model that is supposed to aid people in solutions
as the "real" thing happening.

Every single thing that can be done with standing waves can be done
with circuit solutions, and we cannot have charges moving two
directions at the same time at any one point in the system.

The radiation from a short antenna is easily tied directly to
ampere-feet, and the amperes that cause that radiation **is** the
current Roy and I measured. The current Roy and I measured is the
current level causing heat.

Be assured that along the short length of the conductor at any fixed
instant of time in one spot, you cannot possible have two potentials or
charge differences causing charges to move two directions at once.

What you are saying is you have something that cannot actually happen
and even if it could it has no effect and cannot be measured, and that
is what is important to you and makes the rest of the world wrong.

No wonder no one can agree with you!

73 Tom

1721. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 07:17:33 UTC
From: w8ji@akorn.net
Message-ID: <1146381453.661999.41270@i40g2000cwc.googlegroups.com>
Source record: 60263

Cecil Moore wrote:
> w8ji@akorn.net wrote:
> > I never said 1.0, as a matter of fact the coil I measured had a vF
> > (when compared to physical length) of about .5
>
> Sorry, that's still about 1000% too high, still completely out
> of the ballpark. What I suspect is that you measured zero delay
> through the coil and reported 3 nS because you knew zero was
> obviously wrong.

Sorry Cecil, I cannot get into my network analyzer and make it show a delay on a printout that isn't actually there. I push the button, it prints the data it takes.

In an attempt to justify your odd conclusions, you are now altering my measurements.

At this point any further exchange is useless, because you have now resorted to calling the other person a liar when measured data disagrees with your preconcieved notions.

I'm done with you.

1722. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 11:06:52 UTC
From: Guy <nospam@nospam.nospam>
Message-ID: <mT05g.59704$gE.42943@dukeread06>
Source record: 60264
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1146368310.284179.91600@j33g2000cwa.googlegroups.com...
>
> Terry Two Shoes wrote:
>> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in message
>> news:1257hrlls8jm694@corp.supernews.com...
>> "Fred" <freddyr1928@ll.net> wrote in message
>> news:cff752ptrbujv3st3o1r30ececm1f3oku4@4ax.com...
>> > On 29 Apr 2006 10:51:13 -0700, "an_old_friend" <konstans@hotmail.com>
>> > wrote:
>
>> If passing a Ham test was predicated upon correct spelling, he'd be a
>> washout.
>
> but spelling corect on the fly is not requirement noris punkchuation
> spasing orany efert 2make it ezyon thu reedr
>

1723. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 12:20:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <_X15g.18751$4L1.8107@newssvr11.news.prodigy.com>
Source record: 60265

w8ji@akorn.net wrote:
> TE, TM, or TEM a small loading coil cannot behave very much like a
> transmission line.

We are not discussing small coils, Tom. We are discussing big
honking 75m bugcatcher coils. Why do you guys always retreat
from the real world into the area of "small" coils?

> If you read the Corum paper carefully, you see he clearly states it is
> an approximation or solution for a coil under the very special
> condition of being self-resonant.

False. He clearly states that the VF and Z0 were established at
the self-resonant frequency and that those values hold as long
as the coil pitch, coil diameter, and frequency remain unchanged.
That's exactly what I have done using EZNEC models.

> He is working on Tesla coils, not loading coils.

The first words in the title are, "RF Coils, ...". Figure 2
looks just like a 75m bugcatcher system with a top hat. A
75m bugcatcher coil is a helical resonator that brings the
antenna system into resonance.

He has a litmus test for RF coils. If the coil dimensions
pass the litmus test, then his VF and Z0 equations are known
to be valid within 10%. A 75m bugcatcher coil passes that
litmus test by a 100% margin.

A self-resonant coil is 90 degrees long. Dr. Corum says the
lumped circuit model doesn't work until the coil is trimmed
down to 0.167 of that length. Seems you have proven that to
be true.

> Notice also how Cecil misquotes to make a point. The Vf I measured on
> 80 meters for a large bug-catcher style coil was actually .5 compared
> to spatial length, not 1.0

Sorry, my memory was faulty on that one but 0.5 is still 1000%
different from the value predicted by Dr. Corum's VF equation
and flies in the face of known technical facts about coils.

> On the other hand Cecil has measured virtually nothing, Yuri has
> measured nothing, ...

Which is better, Tom. Valid science or invalid measurements? You
still haven't answered my question as to why you don't just
assert that a 1/4WL monopole is zero degrees long since there is

zero degrees of phase shift in the standing wave current phase
from end to end in the antenna. Heck, you can even prove that
a 1/2WL thin-wire dipole is zero degrees long using the same
measurement techniques that you used on a coil.

> ... and Harrison probably hasn't even owned a bug catcher
> coil being a technician class license holder.

Instead of belittling his ham license, how about you compare
your technical degrees to "Harrison's"?
--
73, Cecil http://www.qsl.net/w5dxp

1724. Re: TT-247 and 102 whip for mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 12:39:45 UTC
From: Buck <not@this.time>
Message-ID: <jrb9529rcm9goesg3m9kg708op9cvcegep@4ax.com>
Source record: 60266

Ok, That makes sense

That gives me an idea. I wonder what stacking my 20 meter base on top
of my 40 meter base would produce. I'll try that today. I did some
testing, see my followup in this thread.

Thanks
Buck

On Sun, 30 Apr 2006 04:55:45 GMT, Bob <warthog9@pacbell.net> wrote:

>I believe the SGC whip is continuously loaded with a tapered pitch over
>a large diameter fiberglass core and also has a straight internal
>shorter section for higher freqs. No top stinger, just big, thick, ugly
>black heatshrink coated. I think it resonates around 13 and 22MHz. Look
>up an SG-303 in Google.
>Bob
>
>
>Buck wrote:
>
>>>> How long is the two piece whip?
>> Is there more to the two-piece than just two pieces? Is it a loaded
>> fiberglass whip with a stinger, or two solid pieces of wire making up
>> one long stinger. If so, the cb whip is longer, if you have a loaded
>> section, the loaded section is longer.
>>

--
73 for now
Buck
N4PGW

1725. Re: Missing Degrees in Mobile Antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 12:45:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hj25g.18752$4L1.3351@newssvr11.news.prodigy.com>
Source record: 60267

w8ji@akorn.net wrote:
> Sorry Cecil, I cannot get into my network analyzer and make it show a
> delay on a printout that isn't actually there. I push the button, it
> prints the data it takes.

Yes, and you have previously said that any answer is better than
no answer at all, presumably including answers obtained using
invalid measurement techniques.

If you take your network analyzer and measure the current phase
shift from end to end in a 1/2WL thin-wire dipole, you can prove
that dipole to be almost zero degrees long, just like you did with
the coil.

> In an attempt to justify your odd conclusions, you are now altering my
> measurements.

Please don't blame my faulty memory on any ulterior motive. It was
an honest mistake easily proven to be wrong. (And a VF of 0.5 is
just as unbelievable as a VF of 1.0 for a foot long 8 tpi coil.)

> At this point any further exchange is useless, because you have now
> resorted to calling the other person a liar when measured data
> disagrees with your preconcieved notions.

I apologize for my faulty memory, Tom, and everyone knows that I didn't
call you a liar. I accidentally misquoted you and you corrected me.

Your measured data simply disagrees with known technical facts. Until
you take time to understand the technical implications behind the
standing wave current phase that you used for your measurements,

Itot = Io*cos(kx)*cos(wt)

you will never understand why using such a signal to measure phase
is an invalid thing to do. Hint: the phase of the above standing
wave current doesn't vary with 'x' so it cannot be used to measure
a phase shift between point 'x1' and point 'x2' on a wire or
through a coil.
--
73, Cecil http://www.qsl.net/w5dxp

1726. TT-247 and 102 whip for mobile antenna ? testing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 12:55:49 UTC
From: Buck <not@this.time>
Message-ID: <b2c9525v2bq3ah5l523rl7qploepudc06d@4ax.com>
Source record: 60268

Yesterday I bought the whip and put it on my existing ball mount on the back left corner of my van. I still have the coax running to it so there is about 20 feet of RG-58 (RadioShack brand) running from the antenna to the tuner.

My preliminary results weren't good. It tunes all ham bands from 6 thru 17 easily. 20 starts getting finicky and the bands below seem to cause arcing.

On the receive side, I am able to receive much better with the CB whip than with either the 40 or 20 meter AS antennas on bands other than what the AS antennas are designed for.

On transmit, things aren't so well. On 75 meters, I was able to hear one person acknowledge that there was a mobile calling. I heard no other response with any other band. Mind you, I was doing this from just about sunset until about 11 PM with a long break for supper and a short shopping trip. This wasn't the ideal time to test the antenna for any band other than 40 and 80.

I heard some activity on 60 but no one responded to my call.

Today, if I don't get called into work, I plan to cut the wire next to the antenna mount and install an SO-239 so I can wire the tuner directly to the antenna or connect the coax to run to the front of the van where I have the radio mounted.

I will test the antenna and try to compare it to the 40 and 20 meter as antennas.

Just for kicks and giggles, I stacked the two antenna bases for 20 and 40 meters and added the steel whip to the top of the combo (that's about 12 feet tall plus the height on the van.) The results weren't good. The steel whip was too heavy and caused the antenna to bow to the ground. I will try them today with and without the stinger to see if that is a better combination than just the one band antenna. hmm, 20 + 40, that's 60 meters, right? lol.

It's 9 am here in Charlotte. I am going to read my email and go experiment some more.

73 for now.

--
73 for now
Buck
N4PGW

1727. Re: TT-247 and 102 whip for mobile antenna ? testing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 13:26:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <SV25g.18753$4L1.2440@newssvr11.news.prodigy.com>
Source record: 60269

Buck wrote:
> Today, if I don't get called into work, I plan to cut the wire next to
> the antenna mount and install an SO-239 so I can wire the tuner
> directly to the antenna or connect the coax to run to the front of the
> van where I have the radio mounted.

SGC recommends that no transmission line be used between the
tuner and the antenna because of arcing. Consider that to
force just one watt into a CB whip on 4 MHz, EZNEC says it
takes over 1700 volts.
--
73, Cecil http://www.qsl.net/w5dxp

1728. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 13:53:09 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4454C145.4020601@fuse.net>
Source record: 60270
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Guy wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1146368310.284179.91600@j33g2000cwa.googlegroups.com...
>
>>Terry Two Shoes wrote:
>>
>>>"Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in message
>>>news:1257hrlls8jm694@corp.supernews.com...
>>>"Fred" <freddyr1928@ll.net> wrote in message
>>>news:cff752ptrbujv3st3o1r30ececm1f3oku4@4ax.com...
>>>
>>>>On 29 Apr 2006 10:51:13 -0700, "an_old_friend" <konstans@hotmail.com>
>>>>wrote:
>>
>>>If passing a Ham test was predicated upon correct spelling, he'd be a
>>>washout.
>>
>>but spelling corect on the fly is not requirement noris punkchuation
>>spasing orany efert 2make it ezyon thu reedr
>>
>
>
>
Thanks SO MUCH to everyone involved for ruining this NG with off-topic
drivel.

Another ham group washout. "Tis a pity.

John
AB8WH

1729. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 14:07:51 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4454C4B7.4060503@fuse.net>
Source record: 60271

Howard W3CQH wrote:
> Another item that also works especially on 6m, throw an old bed spring on
> the roof!
> 73's
>
> "Owen Duffy" <owen@no.where> wrote in message
> news:3hd2525iugq7fnnabcpsqk32okj0ncklt7@4ax.com...
>
>>On Thu, 27 Apr 2006 12:13:46 -0700, Roy Lewallen <w7el@eznec.com>
>>wrote:
>>
>>
>>>jawod wrote:
>>>
>>>>I was listening to 40M the other night and a reasonably clear SSB signal
>>>> came from a guy in Pennsylvania using 100 W to a rain gutter.
>>>>
>>>>It was apparently raining at the time in PA.
>>>>
>>>>All the mathematical modeling and tweaking discussed in this group ...
>>>>I thought the successful use of a rain gutter deserved some praise here.
>>>
>>>Why? There's nothing unusual or exceptional about it.
>>
>>Indeed.
>>
>>Whilst it might have, and is probably still often done, it is unlikely
>>to comply with limits on Maximum Permitted Exposure to EMR. It has a
>>host of other disadvantages (EMC incompatibility, TVI/RFI, unreliable
>>performance to name a few).
>>
>>The configuration is known as a CIA Special down here, being a covert
>>antenna. I suppose it is commonly done in places where covenants
>>prohibit external antennas.
>>
>>...
>>
>>>Anyone who's been a ham for a few years probably has a handful of
>>>similar stories. What conclusions should we draw from them?
>>
>>Anything and everything "works" in the minds of amateurs. In the minds
>>of some, a few QSOs is adequate proof that something "works", though I
>>know you think differently Roy.
>>

>>Owen
>>--
>
>
>
I just think the great stories of rain gutters, chimneys, fire escapes,
etc. reflect the spirit of individual experimentation that, to me, is
the heart of ham radio. Maybe not the brain, but the heart.

John
AB8WH

1730. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 14:09:02 UTC
From: jimbo <jimbo62@spamex.com>
Message-ID: <YLWdnfBYcMxsWcnZnZ2dnUVZ_uWdnZ2d@comcast.com>
Source record: 60272

Bob wrote:
snip

> My point is, why not make a simple ground plane for the attic that may
> not get bothered by surroundings as much as the J-pole.
> Bob
>

I made one of those antennas right after I got my Tech license. Hit
the local repeater with no problems. I guess I forgot or thought it
was too simple for the current application.

jimbo

1731. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 14:29:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <wR35g.21983$tN3.5401@newssvr27.news.prodigy.net>
Source record: 60273

jawod wrote:
> I just think the great stories of rain gutters, chimneys, fire escapes,
> etc. reflect the spirit of individual experimentation that, to me, is
> the heart of ham radio. Maybe not the brain, but the heart.

You must love Kurt N. Sterba's tales of using bedsprings,
ladders, and garbage cans for antennas.
--
73, Cecil http://www.qsl.net/w5dxp

1732. Re: TT-247 and 102 whip for mobile antenna ? testing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 14:55:07 UTC
From: Buck <not@this.time>
Message-ID: <arj9529ev7bgm6ruuvramglkabsrks2goh@4ax.com>
Source record: 60274

On Sun, 30 Apr 2006 13:26:10 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Buck wrote:
>> Today, if I don't get called into work, I plan to cut the wire next to
>> the antenna mount and install an SO-239 so I can wire the tuner
>> directly to the antenna or connect the coax to run to the front of the
>> van where I have the radio mounted.
>
>SGC recommends that no transmission line be used between the
>tuner and the antenna because of arcing. Consider that to
>force just one watt into a CB whip on 4 MHz, EZNEC says it
>takes over 1700 volts.

Interesting. Thanks.

I am still testing. I tested with coax and the result is that the
antennas designed for a given frequency work much better on their
frequencies. I am looking for my soldering kit now for the
connectors.

I may try a direct connection to see what happens without coax if I
can.

back in a few.

n4pgw

--
73 for now
Buck
N4PGW

1733. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 15:00:16 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <4i45g.77725$dW3.10759@newssvr21.news.prodigy.com>
Source record: 60275

w8ji@akorn.net wrote:
> Tom Donaly wrote:
>
>>Consider your normal mobile antenna with a large loading coil. Now,
>>in your mind's eye, replace the coil with a cylinder. Now, compute the
>>cutoff frequency for that cylinder for either a TE or TM mode and see
>>how close you can get to 3.75 Mhz. Of course, if your waves are slow
>>enough, you should be able to cram something in there, but you have to
>>show experimentally both that you can do it, and how you can do it.
>>Tom Donaly, KA6RUH
>
>
> TE, TM, or TEM a small loading coil cannot behave very much like a
> transmission line.
>
> If you read the Corum paper carefully, you see he clearly states it is
> an approximation or solution for a coil under the very special
> condition of being self-resonant.
>
> He is working on Tesla coils, not loading coils. He is working with
> coils that have essentially no termination and that actuallly behave
> like a series of L networks with high reactance shunt C and high
> reactance series L.
>
> Worse yet, we have one person who is trying to use a large diameter
> helice with wide turn spacing that is large enough to support TEM waves
> as a comparison to a tiny fraction of a wavelength dieameter and length
> inductor that has relatively close turn spacing and tight coupling from
> turn to adjacent turn.
>
> Unless we do something to cause the radial electric field to be very
> intense and support significant displacement currents, all the standing
> waves in the world external to the won't make a coil behave like a
> linear conductor.
>
> Notice also how Cecil misquotes to make a point. The Vf I measured on
> 80 meters for a large bug-catcher style coil was actually .5 compared
> to spatial length, not 1.0
>
> On the other hand Cecil has measured virtually nothing, Yuri has
> measured nothing, and Harrison probably hasn't even owned a bug catcher
> coil being a technician class license holder.
>
> It's easy to dismiss measurements when you have not done a thing on

> your own except talk.
>
> 73 Tom
>

Everyone wants to use the most unreliable instrument they possess, their brain, to measure natural phenomena. The Corum boys wrote an entertaining paper that makes use of what is evidently an old technique for explaining helical behavior in the microwave range to make a point about self-resonant coils being superior to coil-capacitor combinations for producing long sparks in Tesla coils. Taken literally, the paper misses the magic ingredient of validation by experimentation. There are speculative papers all over the web that do the same thing, but without experimentation and measurement their most useful purpose is to provide ideas for people who are willing to do the grunt work of designing and setting up experiments which show how good the mental approximations are, their limitations, and their usefulness. I don't think the Corum paper is worth much at 3.75 Mhz. Maybe some of the fellows on this newsgroup can design and carry out an experiment that shows me wrong. I'd be delighted to be able to use a loading coil as a low-frequency waveguide. In the meantime, I don't see any use in Cecil quoting from Corum's paper as if it were received wisdom while its conclusions are no more proven than the ideas Cecil is trying to prove.
73,
Tom Donaly, KA6RUH

1734. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 15:12:18 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <mt45g.2542$zn1.671@edtnps90>
Source record: 60176

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:mrKdnUgqFMsZs8nZRVnyjg@bt.com...
>I havn't much idea on what the present argument is all about. And I
> have no wish to take sides.
>
> But -
>
> If Line-1 has impedance Zo1 and is a fractional wavelength L1 long,
>
> and Line-2 has impedance Zo2 and is a fractional wavelength L2 long,
>
> then when both lines are connected together and are brought into
> so-called 1/4-wave resonance by pruning the length of one of the
> lines, it is IMPOSSIBLE for L1 + L2 to equal 1/4-wavelength or 90
> degrees.
>
> There are ALWAYS some degrees "missing" - depending on the ratio
> Zo1/Zo2.
>
> Except only when Zo1 = Zo2 will L1 + L2 total 90 degrees.
>
> Can be proved mathematically without invoking standing or reflected
> waves. You just have to believe in mathematics.
>
> Line-1, of course, is a loading coil and Line-2 is a whip.
>
> I hope this settles an argument.
>
> For a demonstration download program TWOLINES from website below.

I don't understand the argument either. Why would anyone care
how many degrees an antenna has; it radiates all the power
whatever its length.

Frank

1735. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 15:16:44 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <wx45g.77731$dW3.57710@newssvr21.news.prodigy.com>
Source record: 60177

Cecil Moore wrote:

> w8ji@akorn.net wrote:
>
>> TE, TM, or TEM a small loading coil cannot behave very much like a
>> transmission line.
>
>
> We are not discussing small coils, Tom. We are discussing big
> honking 75m bugcatcher coils. Why do you guys always retreat
> from the real world into the area of "small" coils?
>
>> If you read the Corum paper carefully, you see he clearly states it is
>> an approximation or solution for a coil under the very special
>> condition of being self-resonant.
>
>
> False. He clearly states that the VF and Z0 were established at
> the self-resonant frequency and that those values hold as long
> as the coil pitch, coil diameter, and frequency remain unchanged.
> That's exactly what I have done using EZNEC models.
>
>> He is working on Tesla coils, not loading coils.
>
>
> The first words in the title are, "RF Coils, ...". Figure 2
> looks just like a 75m bugcatcher system with a top hat. A
> 75m bugcatcher coil is a helical resonator that brings the
> antenna system into resonance.
>
> He has a litmus test for RF coils. If the coil dimensions
> pass the litmus test, then his VF and Z0 equations are known
> to be valid within 10%. A 75m bugcatcher coil passes that
> litmus test by a 100% margin.
>
> A self-resonant coil is 90 degrees long. Dr. Corum says the
> lumped circuit model doesn't work until the coil is trimmed
> down to 0.167 of that length. Seems you have proven that to
> be true.
>
>> Notice also how Cecil misquotes to make a point. The Vf I measured on
>> 80 meters for a large bug-catcher style coil was actually .5 compared
>> to spatial length, not 1.0
>

>
> Sorry, my memory was faulty on that one but 0.5 is still 1000%
> different from the value predicted by Dr. Corum's VF equation
> and flies in the face of known technical facts about coils.
>
>> On the other hand Cecil has measured virtually nothing, Yuri has
>> measured nothing, ...
>
>
> Which is better, Tom. Valid science or invalid measurements? You
> still haven't answered my question as to why you don't just
> assert that a 1/4WL monopole is zero degrees long since there is
> zero degrees of phase shift in the standing wave current phase
> from end to end in the antenna. Heck, you can even prove that
> a 1/2WL thin-wire dipole is zero degrees long using the same
> measurement techniques that you used on a coil.
>
>> ... and Harrison probably hasn't even owned a bug catcher
>> coil being a technician class license holder.
>
>
> Instead of belittling his ham license, how about you compare
> your technical degrees to "Harrison's"?

Tom sure hit the nail on the head this time, didn't he, Cecil.
When are you guys going to do your own experiments and
measurements. Yuri at least threatens to do them. You just
use a fast mouth and a few hick rhetorical techniques to get
someone - anyone - to go along with you. A man can justify just
about anything with his mouth, including CFA antennas and their
kin, but providing repeatable experiments and measurements
is something else again... ain't it.
73,
Tom Donaly, KA6RUH

1736. Re: TT-247 and 102 whip for mobile antenna ? test complete

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 16:29:54 UTC
From: Buck <not@this.time>
Message-ID: <lso952p0lcqi7his0lqq85vm49ulv7nra4@4ax.com>
Source record: 60178

I just finished testing my antennas. The result is that the
whip/tuner combination is unacceptable.

I took the coax off the ball mount and ran short wires, about 6 inches
from the center lead of the ball and from the ground screw at the ball
inside the cab of the van and ran them to the appropriate connectors
on the tuner. I then tested 75, 40, and 20 meters.

The test results were that I made no contacts on 75. The only thing I
heard was a very slow and long monolog on 3872 by some man who seemed
more to be broadcasting than talking to another individual. I waited
over ten minutes to see if he would break or identify, but he did
neither. I went to 3.915 and heard two stations go QRT, but received
no response when I called. I didn't have another antenna worth
testing on 75 so that concluded my 75 meter test. Results: NO JOY!

I went to 40 meters where I heard some conversations. It tuned up
more easily than on 75, but no one answered my calls. I swapped to
the 40 meter AS antenna and the stations I heard went from no signal
on the scale to over s-9. That was enough to resolve that test.
Results: NO JOY!

I went to 20 meters where I had more success. I talked to Jim on the
county hunter's net with the whip antenna. He was the only station I
was hearing at the time. I swapped to the 20 meter AS antenna and his
signal strength went from s-2 to s-9. Also, I was able to hear the
mobile that was running. Results: NO JOY!

I hooked the coax back up, setup the 20 meter AS antenna and tuned it
from the front of the car. I will not be drilling a hole and
rearranging all the roof antennas for the whip. I will rather focus
my attention on getting the rest of the parts of my screwdriver
together after I get paid next week and see if I can install it.

Thanks for all the comments.

If nothing else, all this testing did reveal a bad ground connection
from the coax to the cab of the van. It is now fixed.

73 for now.

--
73 for now
Buck
N4PGW

1737. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 16:48:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c6q952digd6ommg9ikaf56hask2um70cjc@4ax.com>
Source record: 60179

On Sun, 30 Apr 2006 12:20:10 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>A 75m bugcatcher coil passes that litmus test by a 100% margin.

That would be pretty poor litmus! Acceptable error has increased from
ï¿½59% to ï¿½100%

So as to conserve thread length, please choose excuse by number:
1. Typing error;
2. Poor eye cite;
3. MENSa decreptis;
4. Xerox copier jam;
5. Rhetorical answer.

1738. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 16:57:57 UTC
From: AC7PN <brunius@rockisland.com>
Message-ID: <1146416277.330091.189340@j73g2000cwa.googlegroups.com>
Source record: 60180

K7ITM wrote:
> Oh, Richard, Richard...
>
> A smaller wire diameter has MORE inductance, not less, in the same
> environment. Think for a moment about coax: reduce the inner
> conductor diameter, and the impedance goes up while the propagation
> velocity stays the same. That means that C goes down and L goes up.
>
> For Pierre: something else to ponder is that the change for resonance
> (zero reactance) in a half-wave dipole is considerably less than the
> change in a full-wave ("anti-resonant") dipole, for the same wire
> diameter change.
>
> I don't think that simple concepts of the antenna behaving like a TEM
> transmission line are going to cut it here, and I'll wait for a better
> explanation than that.
>
> Cheers,
> Tom

Tom is correct here, a smaller wire has more inductance than a larger wire. The resason is that the current paths on a large conductor become far enough away from other current paths on the surface of the same conductor, that their magnetic flux lines begin to not totaly include each other. Therefore the parrellel current paths do not have total mutual inductance. A big wire begins to act like several parrellel wires. Inductors in parrellel produce a smaller inductance. The bigger the conducter the greater the effect.

Adding an inductor in the middle of an antenna wire lowers the resonant frequency. To keep the same resonant frequency when inductance is added, you need to shorten the wire. The inductance added by making a wire smaller is totaly distributed along its length which changes slightly the results compared to the example of adding a lumped inductance in the middle of a wire antenna but the priciple is the same.

Bottom line, smaller wire means more inductance and a shorter lenght for the same resonant frequency. Bigger wire means less inductance and a longer length for the same resonant frequency.

Speaking of antennas by the way, have a look at my 5 element log cell 20 meter beam. I have a photo of it on QRZ. http://www.qrz.com/ac7pn

1739. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 17:20:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tpr9525oo2nuh295hs3tk9i89jnkaq96o1@4ax.com>
Source record: 60181

On 30 Apr 2006 09:57:57 -0700, "AC7PN" <brunius@rockisland.com> wrote:

>Tom is correct here, a smaller wire has more inductance than a larger
>wire.

Hi Robert,

You are late into this cycle of discussion.

>The resason is that the current paths on a large conductor become
>far enough away from other current paths on the surface of the same
>conductor, that their magnetic flux lines begin to not totaly include
>each other.

And yet this does nothing to answer the question, does it?

>Speaking of antennas by the way, have a look at my 5 element log cell
>20 meter beam. I have a photo of it on QRZ. http://www.qrz.com/ac7pn

As pictures go, it is a good one.

73's
Richard Clark, KB7QHC

1740. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 17:29:09 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Ft65g.71195$H71.26221@newssvr13.news.prodigy.com>
Source record: 60182

Tom Donaly wrote:
> Everyone wants to use the most unreliable instrument they possess, their
> brain, to measure natural phenomena. The Corum boys wrote an
> entertaining paper that makes use of what is evidently an old
> technique for explaining helical behavior in the microwave range
> to make a point about self-resonant coils being superior to
> coil-capacitor combinations for producing long sparks in
> Tesla coils. Taken literally, the paper misses the magic
> ingredient of validation by experimentation.

Drs. Corum have published many papers which include experiments
and measurements. The above referenced paper is the technical
summation of theory and measurements. The other paper that I
quoted contains all the experimental measurements that you could
ask for. Enjoy. It is at:

http://www.ttr.com/corum/index.htm
--
73, Cecil http://www.qsl.net/w5dxp

1741. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 17:32:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <mw65g.71196$H71.27541@newssvr13.news.prodigy.com>
Source record: 60183

Frank's wrote:
> I don't understand the argument either. Why would anyone care
> how many degrees an antenna has; it radiates all the power
> whatever its length.

Some of us care whether that radiation is heat or RF. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1742. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 18:10:01 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146420600.965799.254370@i39g2000cwa.googlegroups.com>
Source record: 60184
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

```
Guy wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1146368310.284179.91600@j33g2000cwa.googlegroups.com...
> >
> > Terry Two Shoes wrote:
> >> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in message
> >> news:1257hrlls8jm694@corp.supernews.com...
> >> "Fred" <freddyr1928@ll.net> wrote in message
> >> news:cff752ptrbujv3st3o1r30ececm1f3oku4@4ax.com...
> >> > On 29 Apr 2006 10:51:13 -0700, "an_old_friend" <konstans@hotmail.com>
> >> > wrote:
> >
> >> If passing a Ham test was predicated upon correct spelling, he'd be a
> >> washout.
> >
> > but spelling corect on the fly is not requirement
forging again

it is amaszing the fear of me shown in this forum
that someone needs to add "noris punkchuation spasing orany efert
2make it ezyon thu reedr"

to my post

coward

> >
```

1743. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 18:10:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <T475g.18851$4L1.10137@newssvr11.news.prodigy.com>
Source record: 60185

Tom Donaly wrote:
> When are you guys going to do your own experiments and
> measurements.

I've already done them and reported them here, Tom. Here's the procedure again.

1. Take a sample coil and measure the 1/4WL self resonant frequency over my GMC pickup ground plane.

2. Keeping everything else the same, cut off half of the above coil.

3. Add enough straight wire as a stinger to bring the antenna system back to resonance at the previous self-resonant frequency.

4. The delay through half the coil at the self resonant frequency of the whole coil, is known to be 45 degrees. The stinger is 11 degrees long. The impedance discontinuity between the coil and the stinger provides the other 34 degrees of phase shift.

Both sides of the argument assumed only two phase shifts were involved. Both sides were wrong. The third phase shift is obvious once you know it exists and is perfectly visible on a Smith Chart. When the impedance at Z01 is 1.0 on the Smith Chart and transforms to 9.0 on the Smith Chart for Z02, that's obviously a large phase shift.

Two years ago, both sides agreed that the stinger was about 11 degrees of the antenna.

1. Side 1 said that the base loading coil acted as a purely lumped inductance providing 79 degrees of phase shift essentially at a point.

2. Side 2 said that the base loading coil provided a 79 degree delay like the delay in a transmission line, which was the source of the 79 degree phase shift.

At that time, both sides were unaware of the phase shift occuring at the impedance discontinuity point.

Now we know that both sides were partially right and partially wrong. As side 1 said, there is an abrupt phase shift at a point. As side 2 said, there is a delay through the coil. The truth seems to be just

about in the middle of the two previous arguments
which should make both sides happy.

There are tens of degrees of delay through the coil.

There are tens of degrees of abrupt phase shift at
the coil to stinger impedance discontinuity.

Both sides were equally right and equally wrong. Who
won? Both sides. Who lost? Both sides. This is the
invariable result when both sides are forced off the
rails by reality.
--
73, Cecil http://www.qsl.net/w5dxp

1744. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 18:15:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <y975g.18852$4L1.14620@newssvr11.news.prodigy.com>
Source record: 60186

AC7PN wrote:
> Bottom line, smaller wire means more inductance and a shorter lenght
> for the same resonant frequency. Bigger wire means less inductance and
> a longer length for the same resonant frequency.

Why does EZNEC report that increasing the wire diameter results
in lowering the resonant frequency?
--
73, Cecil http://www.qsl.net/w5dxp

1745. Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 18:23:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jes952lr3vn6jitg2bs80gn2t9bm614lgl@4ax.com>
Source record: 60187

Hi All,

This is a variation on themes being played out. As the title suggests, you too can force your modeler to give you phenomenal results in just 5 minutes! Think of it, 20 dBi from a short Dipole - but first the story:

While I was pondering the coil current flow tricks, I mused over the thought of instead loading a short antenna with the inverse of inductance, capacitance. Instead of using suspect lumped loads, I instead chose to load the wire with insulation. And not just any insulation.

Insulation found on typical wire comes in a vary small range of values. They exhibit dielectric constants from 2 to 4, and rarely that high. If I were to take a load of it, say in the form factor of a Texas Bugcatcher coil - what would happen?

Not much it seems. However, I am not one to let that slow me down and I considered a list of elements and materials to examine them for the highest DCs available. I was thinking of waxes primarily. The thought ran that I would turn a small HF antenna into a candle and see if that would slow the Vf.

Waxes do offer higher DCs, but not markedly so. I started to think salts next, considering that the common round salt box was about the same size as a large coil. Salts have a high DC (up to the teens), but even there, not much effect.

Then I turned to what is commonly available, and exhibits a very high DC - water (dielectric constant of 80). I started with a meter high tube of 4 inches diameter (been thinking a lot about plumbing this week when contractors built a French drain in the basement) and plunked a short (5M) vertical antenna into it.

THIS made a difference. (OK, so did others, but not like THIS).

What the hell, I started to make the diameter bigger to see where the limits of failure were. Turned out to be around 12 inches thick water jacket. This was for a monopole in a truck bed I though (fair amount of weight and sloshing in this linear load). However, it had the intended consequence of providing 5.6dBi gain.

Now, this gain has to be taken in the perspective of the unjacketed radiator that exhibits -4.85dBi gain. More than 10dB gain by adding this water jacket! Hosanna! Of course, if I trimmed this thickness to goose up the gain, THEN the modeler failed with reports of negative

resistance (due to possible problems that could not possibly exist).

Well, time to reduce complexity and do the same thing with a short dipole in space (10M long excited at 3.8MHz). This antenna is constructed with 10 wires so that only the first wires closest to the feed are insulated. I increased the size of the water jacket and noted results for drive point impedance, average gain, and best gain. The binomial progression is edited from a longer list. The results are as follows:

Thickness Zfeed AvGain Gain
mm Ohms dB dB
0 4.1 - J 1646 -0.02 1.77
10 3.726 - J 1437 0.039 2.17
20 3.498 - J 1305 0.66 2.45
40 3.2 - J 1133 1.05 2.83
80 2.848 - J 930 1.55 3.34
160 2.46 - J 705.8 2.19 3.98
320 2.051 - J 469.5 2.98 4.77
600 1.67 - J 249.5 3.87 5.66
1211.67 1.238 - J 0.0013 5.17 6.96
2200 0.8685 + J 213.2 6.71 8.5
4000 0.4971 + J 427.7 9.13 10.92
8000 0.0656 + J 676.9 17.93 19.71

As you can see, a water jacket 16 meters wide around the first meter(s) of the dipole offer considerable gain and nothing suggesting that further enlargement was going to upset this trend. I wasn't going to push it anyway because it looked exceedingly suspicious.

As suspicious as it may appear, it shows a rather smooth progression. It was pleasing to note how the load reactance shifted from capacitive to inductive. I posted a note to Roy who confirmed the intent for the insulation entry was to limit it to common coating dimensions. However, there is nothing in the data to suggest a logic breakdown in my progressions.

On the other hand, when I pushed this further by reducing the wire size (10 wires per element instead of 5, while keeping the same total length), I noticed the effect was more remarkable:

Thickness Zfeed AvGain Gain
mm Ohms dB dB
1000 0.2847 + J 139.9 10.98 12.76

A 1 meter water jacket on a shorter wire induced more gain than the former 4 meter water jacket from the series of results above.

To me, this suggested a boundary violation more so than a thickness failure mechanism. There are cautions or prohibitions in connecting different size wires, it seems that extends to insulations' diameter mismates even when the wires' diameters (25.4mm) are identical throughout.

So, the object lesson seems to be
Do not try this at home,
or
in the back yard;
or
Do not fill your truck bed with water flooding your HF antenna

73's
Richard Clark, KB7QHC

p.s.
Just in case there is nothing wrong with the model, I hereby cede this
to the public domain and this is notice of prior art.

1746. RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 18:29:45 UTC
From: Buck <not@this.time>
Message-ID: <jb0a52t70cqcnl4o482hh815fkadf6hbmk@4ax.com>
Source record: 60188

Can anyone tell me about this RoomCap Antenna?

The best I can find on the antenna is a picture of what looks like a
piece of PVC with a capacity hat on it.

I keep getting advertisements on the email reflectors and when I check
the website, it asks for me to email for more information. I have
done so several times and never received a response.

What can you all tell me about this antenna?

Thanks,
Buck

--
73 for now
Buck
N4PGW

1747. Re: Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 18:39:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <jv75g.18862$4L1.9715@newssvr11.news.prodigy.com>
Source record: 60189

Richard Clark wrote:
> Just in case there is nothing wrong with the model, I hereby cede this
> to the public domain and this is notice of prior art.

Years ago, I came up with an EZNEC model that has 24 dBi
omnidirectional gain. It can be downloaded from:

http://www.qsl.net/w5dxp/SUPRGAIN.EZ
--
73, Cecil http://www.qsl.net/w5dxp

1748. Re: Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 18:44:29 UTC
From: Buck <not@this.time>
Message-ID: <t91a529kherh7553gp212rpgeq4ll23r4g@4ax.com>
Source record: 60190

On Sun, 30 Apr 2006 11:23:18 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>Hi All,
>
>This is a variation on themes being played out. As the title
>suggests, you too can force your modeler to give you phenomenal
>results in just 5 minutes! Think of it, 20 dBi from a short Dipole -
>but first the story:
>
>While I was pondering the coil current flow tricks, I mused over the
>thought of instead loading a short antenna with the inverse of
>inductance, capacitance. Instead of using suspect lumped loads, I
>instead chose to load the wire with insulation. And not just any
>insulation.
>
>Insulation found on typical wire comes in a vary small range of
>values. They exhibit dielectric constants from 2 to 4, and rarely
>that high. If I were to take a load of it, say in the form factor of
>a Texas Bugcatcher coil - what would happen?
>
>Not much it seems. However, I am not one to let that slow me down and
>I considered a list of elements and materials to examine them for the
>highest DCs available. I was thinking of waxes primarily. The
>thought ran that I would turn a small HF antenna into a candle and see
>if that would slow the Vf.
>
>Waxes do offer higher DCs, but not markedly so. I started to think
>salts next, considering that the common round salt box was about the
>same size as a large coil. Salts have a high DC (up to the teens),
>but even there, not much effect.
>
>Then I turned to what is commonly available, and exhibits a very high
>DC - water (dielectric constant of 80). I started with a meter high
>tube of 4 inches diameter (been thinking a lot about plumbing this
>week when contractors built a French drain in the basement) and
>plunked a short (5M) vertical antenna into it.
>
>THIS made a difference. (OK, so did others, but not like THIS).
>
>What the hell, I started to make the diameter bigger to see where the
>limits of failure were. Turned out to be around 12 inches thick water
>jacket. This was for a monopole in a truck bed I though (fair amount

>of weight and sloshing in this linear load). However, it had the
>intended consequence of providing 5.6dBi gain.
>
>Now, this gain has to be taken in the perspective of the unjacketed
>radiator that exhibits -4.85dBi gain. More than 10dB gain by adding
>this water jacket! Hosanna! Of course, if I trimmed this thickness
>to goose up the gain, THEN the modeler failed with reports of negative
>resistance (due to possible problems that could not possibly exist).
>
>Well, time to reduce complexity and do the same thing with a short
>dipole in space (10M long excited at 3.8MHz). This antenna is
>constructed with 10 wires so that only the first wires closest to the
>feed are insulated. I increased the size of the water jacket and
>noted results for drive point impedance, average gain, and best gain.
>The binomial progression is edited from a longer list. The results
>are as follows:
>
>Thickness Zfeed AvGain Gain
> mm Ohms dB dB
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> 10 3.726 - J 1437 0.039 2.17
> 20 3.498 - J 1305 0.66 2.45
> 40 3.2 - J 1133 1.05 2.83
> 80 2.848 - J 930 1.55 3.34
> 160 2.46 - J 705.8 2.19 3.98
> 320 2.051 - J 469.5 2.98 4.77
> 600 1.67 - J 249.5 3.87 5.66
> 1211.67 1.238 - J 0.0013 5.17 6.96
> 2200 0.8685 + J 213.2 6.71 8.5
> 4000 0.4971 + J 427.7 9.13 10.92
> 8000 0.0656 + J 676.9 17.93 19.71
>
>As you can see, a water jacket 16 meters wide around the first
>meter(s) of the dipole offer considerable gain and nothing suggesting
>that further enlargement was going to upset this trend. I wasn't
>going to push it anyway because it looked exceedingly suspicious.
>
>As suspicious as it may appear, it shows a rather smooth progression.
>It was pleasing to note how the load reactance shifted from capacitive
>to inductive. I posted a note to Roy who confirmed the intent for the
>insulation entry was to limit it to common coating dimensions.
>However, there is nothing in the data to suggest a logic breakdown in
>my progressions.
>
>On the other hand, when I pushed this further by reducing the wire
>size (10 wires per element instead of 5, while keeping the same total
>length), I noticed the effect was more remarkable:
>
>Thickness Zfeed AvGain Gain
> mm Ohms dB dB

> 1000 0.2847 + J 139.9 10.98 12.76
>
>A 1 meter water jacket on a shorter wire induced more gain than the
>former 4 meter water jacket from the series of results above.
>
>To me, this suggested a boundary violation more so than a thickness
>failure mechanism. There are cautions or prohibitions in connecting
>different size wires, it seems that extends to insulations' diameter
>mismates even when the wires' diameters (25.4mm) are identical
>throughout.
>
>So, the object lesson seems to be
> Do not try this at home,
> or
> in the back yard;
> or
> Do not fill your truck bed with water flooding your HF antenna
>
>73's
>Richard Clark, KB7QHC
>
>p.s.
>Just in case there is nothing wrong with the model, I hereby cede this
>to the public domain and this is notice of prior art.

I lived near a lake that has about a 3 mile circumference, what kind
of gain could I expect if I sank my antenna in the lake and operated
marine mobile from a wooden boat?

--
73 for now
Buck
N4PGW

1749. Icom auto-tune for screwdriver

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 18:48:08 UTC
From: Buck <not@this.time>
Message-ID: <jg1a52lpi2mq4j4rqdcnd4s3rkphpt8qaq@4ax.com>
Source record: 60191

http://www.qsl.net/w5dxp/706screw.htm

Cecil has the above diagram. Tell me if I am wrong, but would not the Icom automatically stop tuning the antenna when the swr drops to it's low if it is below 1.5:1?

--
73 for now
Buck
N4PGW

1750. Re: Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 19:01:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <hc2a52p32j9vo0iueqauavcb79dtmvel3d@4ax.com>
Source record: 60193

On Sun, 30 Apr 2006 14:44:29 -0400, Buck <not@this.time> wrote:

>I lived near a lake that has about a 3 mile circumference, what kind
>of gain could I expect if I sank my antenna in the lake and operated
>marine mobile from a wooden boat?

Et tu Buck?

1751. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 19:03:08 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <MR75g.2574$zn1.771@edtnps90>
Source record: 60192

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:mw65g.71196$H71.27541@newssvr13.news.prodigy.com...
> Frank's wrote:
>> I don't understand the argument either. Why would anyone care
>> how many degrees an antenna has; it radiates all the power
>> whatever its length.
>
> Some of us care whether that radiation is heat or RF. :-)
> --
> 73, Cecil http://www.qsl.net/w5dxp

A 15 ft long horizontal dipole, #14 AWG, on 3.8 MHz,
has a radiation efficiency of 90.17%. The loss due to
heat is 0.45 dB.

Designing an efficient matching network may be difficult.
Even with 100 W delivered to the antenna the 52 kV
at the feedpoint may pose a problem.

Frank

1752. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 19:53:13 UTC
From: jawod <jawod@fuse.net>
Message-ID: <445515A9.7020700@fuse.net>
Source record: 60194

Cecil Moore wrote:
> jawod wrote:
>
>> I just think the great stories of rain gutters, chimneys, fire
>> escapes, etc. reflect the spirit of individual experimentation that,
>> to me, is the heart of ham radio. Maybe not the brain, but the heart.
>
>
> You must love Kurt N. Sterba's tales of using bedsprings,
> ladders, and garbage cans for antennas.

I don't know who Kurt ? is...maybe I would.

If the calculations get out of hand...maybe I wouldn't.

Wouldn't be weird if someone had to reverse engineer a garbage to define
an antenna?

1753. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 19:54:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125a5f49sbulm23@corp.supernews.com>
Source record: 60195

A wonderfully logical explanation. But there's something wrong with it because the conclusion it reaches is demonstrably wrong.

An antenna made with a larger diameter wire must be made shorter, not longer, than one with a smaller diameter wire to maintain the same resonant frequency.

Roy Lewallen, W7EL

AC7PN wrote:
> . . .
> Bottom line, smaller wire means more inductance and a shorter lenght
> for the same resonant frequency. Bigger wire means less inductance and
> a longer length for the same resonant frequency.
> . . .

1754. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 20:55:15 UTC
From: richardharrison@webtv.net
Message-ID: <9731-44552433-56@storefull-3254.bay.webtv.net>
Source record: 60196

Tom, W8JI wrote:
"--Harrison probably hasn`t even owned a bug catcher coil being a technician class license holder."

You don`t need to own things to understand them.

I have a technician class radio amateur license renewed after its initial ten-hear term. My First FCC license was a 1st class radiotelephone license passed on my first attempt at the test in the Houston FCC Office in early 1949. Shortly thereafter I got a call from a Houston broadcaster that resulted in employment at a plant housing two AM atations which shared a common antenna system. From there I went to work in medium-wave and shortwave broadcasting stations for a dozen years, got several college degrees including a BSEE.

I took a job with a petrochemical conglomerate which called me in 1960 saying that it intended to "automate" its operations and they thought I might be helpful. In their employment, I installed low-frequency aircraft beacons, 6-GHz microwave, shortwave AM, FM, and SSB. Installed telephones and electric power plants.

The conglomerate found, produced, transported, traded, refined. manufactured and marketed oil and gas and products made from them. That was only a start. The company mined materials from the earth and from the sea bottom. It farmed, manufactured tractors and automobile components and tools. It built nuclear submarines, surface ships, natural gas tankers which consumed their own boil off, and it laid pipe across Canada and the U.S.A. It even consulted for other countries on the best ways to install and operate pipelines. I worked with a handfull of others for the subsidiary that did that for awhile. The company sold insurance because insurance companies have mush of the capital, and for a similar reason it bought and operated banks.. We made PVC and other chemical products. I worked in many of the company`s divisions when they asked for my services. We eventually put the pipeline divison under computer control from from Houston dispatcher`s office. Hundred of remotes were involved between Maine and Mexico.

I`ve wound plenty of coils and tuned many mobile whips with my own hands. We used HF radios from Ecuador to Tierra del Fuego. I`ve worked on HF and VHF radios in the company`s aircraft. When I retired in 1986, I was manager of telecommunications.

Best regards, Richard Harrison, KB5WZI

1755. Re: Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 21:11:57 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <xK95g.18910$4L1.7334@newssvr11.news.prodigy.com>
Source record: 60197

Richard Clark wrote:
> Hi All,
>
> This is a variation on themes being played out. As the title
> suggests, you too can force your modeler to give you phenomenal
> results in just 5 minutes! Think of it, 20 dBi from a short Dipole -
> but first the story:
>
> While I was pondering the coil current flow tricks, I mused over the
> thought of instead loading a short antenna with the inverse of
> inductance, capacitance. Instead of using suspect lumped loads, I
> instead chose to load the wire with insulation. And not just any
> insulation.
>
> Insulation found on typical wire comes in a vary small range of
> values. They exhibit dielectric constants from 2 to 4, and rarely
> that high. If I were to take a load of it, say in the form factor of
> a Texas Bugcatcher coil - what would happen?
>
> Not much it seems. However, I am not one to let that slow me down and
> I considered a list of elements and materials to examine them for the
> highest DCs available. I was thinking of waxes primarily. The
> thought ran that I would turn a small HF antenna into a candle and see
> if that would slow the Vf.
>
> Waxes do offer higher DCs, but not markedly so. I started to think
> salts next, considering that the common round salt box was about the
> same size as a large coil. Salts have a high DC (up to the teens),
> but even there, not much effect.
>
> Then I turned to what is commonly available, and exhibits a very high
> DC - water (dielectric constant of 80). I started with a meter high
> tube of 4 inches diameter (been thinking a lot about plumbing this
> week when contractors built a French drain in the basement) and
> plunked a short (5M) vertical antenna into it.
>
> THIS made a difference. (OK, so did others, but not like THIS).
>
> What the hell, I started to make the diameter bigger to see where the
> limits of failure were. Turned out to be around 12 inches thick water
> jacket. This was for a monopole in a truck bed I though (fair amount
> of weight and sloshing in this linear load). However, it had the
> intended consequence of providing 5.6dBi gain.

>
> Now, this gain has to be taken in the perspective of the unjacketed
> radiator that exhibits -4.85dBi gain. More than 10dB gain by adding
> this water jacket! Hosanna! Of course, if I trimmed this thickness
> to goose up the gain, THEN the modeler failed with reports of negative
> resistance (due to possible problems that could not possibly exist).
>
> Well, time to reduce complexity and do the same thing with a short
> dipole in space (10M long excited at 3.8MHz). This antenna is
> constructed with 10 wires so that only the first wires closest to the
> feed are insulated. I increased the size of the water jacket and
> noted results for drive point impedance, average gain, and best gain.
> The binomial progression is edited from a longer list. The results
> are as follows:
>
> Thickness Zfeed AvGain Gain
> mm Ohms dB dB
> 0 4.1 - J 1646 -0.02 1.77
> 10 3.726 - J 1437 0.039 2.17
> 20 3.498 - J 1305 0.66 2.45
> 40 3.2 - J 1133 1.05 2.83
> 80 2.848 - J 930 1.55 3.34
> 160 2.46 - J 705.8 2.19 3.98
> 320 2.051 - J 469.5 2.98 4.77
> 600 1.67 - J 249.5 3.87 5.66
> 1211.67 1.238 - J 0.0013 5.17 6.96
> 2200 0.8685 + J 213.2 6.71 8.5
> 4000 0.4971 + J 427.7 9.13 10.92
> 8000 0.0656 + J 676.9 17.93 19.71
>
> As you can see, a water jacket 16 meters wide around the first
> meter(s) of the dipole offer considerable gain and nothing suggesting
> that further enlargement was going to upset this trend. I wasn't
> going to push it anyway because it looked exceedingly suspicious.
>
> As suspicious as it may appear, it shows a rather smooth progression.
> It was pleasing to note how the load reactance shifted from capacitive
> to inductive. I posted a note to Roy who confirmed the intent for the
> insulation entry was to limit it to common coating dimensions.
> However, there is nothing in the data to suggest a logic breakdown in
> my progressions.
>
> On the other hand, when I pushed this further by reducing the wire
> size (10 wires per element instead of 5, while keeping the same total
> length), I noticed the effect was more remarkable:
>
> Thickness Zfeed AvGain Gain
> mm Ohms dB dB
> 1000 0.2847 + J 139.9 10.98 12.76
>

> A 1 meter water jacket on a shorter wire induced more gain than the
> former 4 meter water jacket from the series of results above.
>
> To me, this suggested a boundary violation more so than a thickness
> failure mechanism. There are cautions or prohibitions in connecting
> different size wires, it seems that extends to insulations' diameter
> mismates even when the wires' diameters (25.4mm) are identical
> throughout.
>
> So, the object lesson seems to be
> Do not try this at home,
> or
> in the back yard;
> or
> Do not fill your truck bed with water flooding your HF antenna
>
> 73's
> Richard Clark, KB7QHC
>
> p.s.
> Just in case there is nothing wrong with the model, I hereby cede this
> to the public domain and this is notice of prior art.

Hi Richard,
try titanium dioxide next time. As long as you're looking
for absurdist solutions it should work even better than water.
73,
Tom Donaly, KA6RUH

1756. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 21:37:13 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <d6a5g.64158$_S7.61710@newssvr14.news.prodigy.com>
Source record: 60198

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> Everyone wants to use the most unreliable instrument they possess, their
>> brain, to measure natural phenomena. The Corum boys wrote an
>> entertaining paper that makes use of what is evidently an old
>> technique for explaining helical behavior in the microwave range
>> to make a point about self-resonant coils being superior to
>> coil-capacitor combinations for producing long sparks in
>> Tesla coils. Taken literally, the paper misses the magic
>> ingredient of validation by experimentation.
>
>
> Drs. Corum have published many papers which include experiments
> and measurements. The above referenced paper is the technical
> summation of theory and measurements. The other paper that I
> quoted contains all the experimental measurements that you could
> ask for. Enjoy. It is at:
>
> http://www.ttr.com/corum/index.htm

That's your idea of careful experimentation is it? First start out
with a controversy that doesn't exist, then prove what everyone knows
in the first place. So what part of the experimentation addresses
the "sheath helix" model of their Tesla coil, Cecil?
73,
Tom Donaly, KA6RUH

1757. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 21:52:10 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <eka5g.78753$dW3.39945@newssvr21.news.prodigy.com>
Source record: 60199

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> When are you guys going to do your own experiments and
>> measurements.
>
>
> I've already done them and reported them here, Tom. Here's
> the procedure again.
>
> 1. Take a sample coil and measure the 1/4WL self resonant
> frequency over my GMC pickup ground plane.
>
> 2. Keeping everything else the same, cut off half of the
> above coil.
>
> 3. Add enough straight wire as a stinger to bring the
> antenna system back to resonance at the previous self-
> resonant frequency.
>
> 4. The delay through half the coil at the self resonant
> frequency of the whole coil, is known to be 45 degrees.
> The stinger is 11 degrees long. The impedance discontinuity
> between the coil and the stinger provides the other 34
> degrees of phase shift.
>
> Both sides of the argument assumed only two phase shifts
> were involved. Both sides were wrong. The third phase
> shift is obvious once you know it exists and is perfectly
> visible on a Smith Chart. When the impedance at Z01 is
> 1.0 on the Smith Chart and transforms to 9.0 on the Smith
> Chart for Z02, that's obviously a large phase shift.
>
> Two years ago, both sides agreed that the stinger was
> about 11 degrees of the antenna.
>
> 1. Side 1 said that the base loading coil acted as a
> purely lumped inductance providing 79 degrees of phase
> shift essentially at a point.
>
> 2. Side 2 said that the base loading coil provided a
> 79 degree delay like the delay in a transmission line,
> which was the source of the 79 degree phase shift.

>
> At that time, both sides were unaware of the phase
> shift occuring at the impedance discontinuity point.
>
> Now we know that both sides were partially right and
> partially wrong. As side 1 said, there is an abrupt
> phase shift at a point. As side 2 said, there is a
> delay through the coil. The truth seems to be just
> about in the middle of the two previous arguments
> which should make both sides happy.
>
> There are tens of degrees of delay through the coil.
>
> There are tens of degrees of abrupt phase shift at
> the coil to stinger impedance discontinuity.
>
> Both sides were equally right and equally wrong. Who
> won? Both sides. Who lost? Both sides. This is the
> invariable result when both sides are forced off the
> rails by reality.

The only problem with that, Cecil, is that in neither the coil nor the inductor do you have a uniform Z0. Since the capacitance per unit length is a variable, so is Z0 which is dependant on it. You've been sucked into Reg's practice of assuming an average Z0 in order to do calculations, but in your case it won't work because you have to posit two distinct Z0s to have your impedance boundary. In actuality, there's a constant change in Z0 up and down both the stinger and the coil so your idea is a bust. By the way, if you or the Corum boys really want a transmission line resonator for your antenna/Teslacoils you should switch to a helical resonator, the kind ensconced in a can. Of course, the sparks will be disappointing, but the theory will work better.
73,
Tom Donaly, KA6RUH

1758. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 21:54:47 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1146434087.455556.152410@u72g2000cwu.googlegroups.com>
Source record: 60200
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On Sat, 29 Apr 2006 15:07:19 -0500, "Dr.Death"
> <drdeath555usb@nospam.yahoo.com> wrote:

>
> I am sure he has a mental retardation waiver.

for what?

I have a valid license and radio equipment what would I need a waver
for?

1759. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 22:04:26 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <Kva5g.71255$H71.36957@newssvr13.news.prodigy.com>
Source record: 60201

And, also, makes great Stacked helical's for 2304! Jim NN7K

jawod wrote:
> Howard W3CQH wrote:
>
>> Another item that also works especially on 6m, throw an old bed spring
>> on the roof!
>> 73's
>>

1760. Re: Icom auto-tune for screwdriver

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 22:24:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gOa5g.78837$dW3.41036@newssvr21.news.prodigy.com>
Source record: 60202

Buck wrote:
> http://www.qsl.net/w5dxp/706screw.htm
> Cecil has the above diagram. Tell me if I am wrong, but would not the
> Icom automatically stop tuning the antenna when the swr drops to it's
> low if it is below 1.5:1?

All that circuit does is reduce the power while tuning.
The operator is the only thing that can stop the tuning.
--
73, Cecil http://www.qsl.net/w5dxp

1761. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 22:34:09 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <BXa5g.78863$dW3.21001@newssvr21.news.prodigy.com>
Source record: 60203

Tom Donaly wrote:
> In actuality, there's a constant change in Z0 up
> and down both the stinger and the coil so your idea is a
> bust.

The gradual change in Z0 really doesn't matter. What matters
is the *abrupt* change in Z0's at the coil to stinger impedance
discontinuity. That's where the abrupt phase shift occurs.
--
73, Cecil http://www.qsl.net/w5dxp

1762. Re: Icom auto-tune for screwdriver

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 22:43:55 UTC
From: Buck <not@this.time>
Message-ID: <jcfa52hdbtoc2979e56hi2lj4lc7t9m8qj@4ax.com>
Source record: 60204

On Sun, 30 Apr 2006 22:24:12 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Buck wrote:
>> http://www.qsl.net/w5dxp/706screw.htm
>> Cecil has the above diagram. Tell me if I am wrong, but would not the
>> Icom automatically stop tuning the antenna when the swr drops to it's
>> low if it is below 1.5:1?
>
>All that circuit does is reduce the power while tuning.
>The operator is the only thing that can stop the tuning.

ok, I thought it would drop the relay when the swr dropped.

Thanks.

--
73 for now
Buck
N4PGW

1763. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 22:53:11 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <rdb5g.66010$F_3.15675@newssvr29.news.prodigy.net>
Source record: 60205

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> In actuality, there's a constant change in Z0 up
>> and down both the stinger and the coil so your idea is a
>> bust.
>
>
> The gradual change in Z0 really doesn't matter. What matters
> is the *abrupt* change in Z0's at the coil to stinger impedance
> discontinuity. That's where the abrupt phase shift occurs.

Yes it does.
73,
Tom Donaly, KA6RUH

1764. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 23:08:47 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <3sb5g.78949$dW3.16032@newssvr21.news.prodigy.com>
Source record: 60206

Tom Donaly wrote:
> Cecil Moore wrote:
>> The gradual change in Z0 really doesn't matter. What matters
>> is the *abrupt* change in Z0's at the coil to stinger impedance
>> discontinuity. That's where the abrupt phase shift occurs.
>
> Yes it does.

It only matters from a quantitative standpoint and it
matters not one iota from a conceptual, qualitative
standpoint. We already have real world transmission
lines that change Z0 gradually. They obey the laws
of physics.
--
73, Cecil http://www.qsl.net/w5dxp

1765. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 23:15:09 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <ryb5g.67$o%6.11@fe10.lga>
Source record: 60207

Hi Richard,
Impressive carreer and background!

That should slap another giant egg on the face of the technical imposter and "guru" parading as "know-it-all" riding on a high horse of plagiarized material.
When he fails technical arguments, he resorts to name calling and insults.
We still have to find out where he got his engineering degree and by what rights he uses "JI Engineering".
Comparing your professional career to his "design" career like Dentron Clipperton L amplifier "capable" of producing barely 600W instead of 1200 on 160 due to joke of a final tank design and his digs at people illustrates the pathetic behavior.

His modus operandi is to defend his wrong "knowledge", ridiculing and trivializing those who know better, then he realizes he was wrong, then he goes quiet for a while, then he twists and "adjusts" his arguments "showing" he said the same things, few months later he surfaces as a guru on the subject, proclaiming the gospel that he fought in the first place. Been there few times with him. He is incapable to engage in decent technical discussions if he thinks different. Will not admit being wrong, but will resort to personal digs when runs out of ammunition.

BTW W9UCW and K8CFU did years of tests and measurements and shared some results pointing to the real behavior of the current in loading coils, but W8JI can make a coil that has the same current at both ends - end of story, because he proclaimed that current is ALWAYS the same and Kirchoff said so, never mind the reality of standing wave current. According to him, the RF chokes should not work either, let's hear some "'splanation".
Oh well, there is bad apple in every RF barrel.

73, Yuri da BUm

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:9731-44552433-56@storefull-3254.bay.webtv.net...
> Tom, W8JI wrote:
> "--Harrison probably hasn`t even owned a bug catcher coil being a
> technician class license holder."
>
> You don`t need to own things to understand them.
>
> I have a technician class radio amateur license renewed after its
> initial ten-hear term. My First FCC license was a 1st class
> radiotelephone license passed on my first attempt at the test in the
> Houston FCC Office in early 1949. Shortly thereafter I got a call from
> a Houston broadcaster that resulted in employment at a plant housing two

> AM atations which shared a common antenna system. From there I went to
> work in medium-wave and shortwave broadcasting stations for a dozen
> years, got several college degrees including a BSEE.
>
> I took a job with a petrochemical conglomerate which called me in 1960
> saying that it intended to "automate" its operations and they thought I
> might be helpful. In their employment, I installed low-frequency
> aircraft beacons, 6-GHz microwave, shortwave AM, FM, and SSB. Installed
> telephones and electric power plants.
>
> The conglomerate found, produced, transported, traded, refined.
> manufactured and marketed oil and gas and products made from them. That
> was only a start. The company mined materials from the earth and from
> the sea bottom. It farmed, manufactured tractors and automobile
> components and tools. It built nuclear submarines, surface ships,
> natural gas tankers which consumed their own boil off, and it laid pipe
> across Canada and the U.S.A. It even consulted for other countries on
> the best ways to install and operate pipelines. I worked with a handfull
> of others for the subsidiary that did that for awhile. The company sold
> insurance because insurance companies have mush of the capital, and for
> a similar reason it bought and operated banks.. We made PVC and other
> chemical products. I worked in many of the company`s divisions when they
> asked for my services. We eventually put the pipeline divison under
> computer control from from Houston dispatcher`s office. Hundred of
> remotes were involved between Maine and Mexico.
>
> I`ve wound plenty of coils and tuned many mobile whips with my own
> hands. We used HF radios from Ecuador to Tierra del Fuego. I`ve worked
> on HF and VHF radios in the company`s aircraft. When I retired in 1986,
> I was manager of telecommunications.
>
> Best regards, Richard Harrison, KB5WZI
>

1766. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-04-30 23:28:59 UTC
From: Guy <nospam@nospam.nospam>
Message-ID: <4Lb5g.60036$gE.30698@dukeread06>
Source record: 60208
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

```
"an_old_friend" <konstans@hotmail.com> wrote in message
news:1146420600.965799.254370@i39g2000cwa.googlegroups.com...
>
> Guy wrote:
>> "an_old_friend" <konstans@hotmail.com> wrote in message
>> news:1146368310.284179.91600@j33g2000cwa.googlegroups.com...
>> >
>> > Terry Two Shoes wrote:
>> >> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in message
>> >> news:1257hrlls8jm694@corp.supernews.com...
>> >> "Fred" <freddyr1928@ll.net> wrote in message
>> >> news:cff752ptrbujv3st3o1r30ececm1f3oku4@4ax.com...
>> >> > On 29 Apr 2006 10:51:13 -0700, "an_old_friend"
>> >> > <konstans@hotmail.com>
>> >> > wrote:
>> >
>> >> If passing a Ham test was predicated upon correct spelling, he'd be a
>> >> washout.
>> >
>> > but spelling corect on the fly is not requirement
> forging again
>
> it is amaszing the fear of me shown in this forum
> that someone needs to add "noris punkchuation spasing orany efert
> 2make it ezyon thu reedr"
>
> to my post
>
> coward im merly poynting owt thee idocy of ur posts buy imitatin u
>
>> >
>
```

1767. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 00:07:08 UTC
From: larry d clark <buddycl@nospam_swbell.net>
Message-ID: <Mic5g.101$fb2.50@newssvr27.news.prodigy.net>
Source record: 60209

Buck wrote:
> Can anyone tell me about this RoomCap Antenna?
>
> The best I can find on the antenna is a picture of what looks like a
> piece of PVC with a capacity hat on it.
>
> I keep getting advertisements on the email reflectors and when I check
> the website, it asks for me to email for more information. I have
> done so several times and never received a response.
>
> What can you all tell me about this antenna?
>
> Thanks,
> Buck
>

http://home.datacomm.ch/hb9abx/ant--abx-e.htm

larry
kd5foy

1768. Re: Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 00:21:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <naka5292kjsdpvim8otdibak41i1slgikb@4ax.com>
Source record: 60210

On Sun, 30 Apr 2006 21:11:57 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

> try titanium dioxide next time. As long as you're looking
>for absurdist solutions it should work even better than water.

Hi Tom,

For those who don't know, titanium dioxide's dielectric constant runs
about 110.

If I wanted to be truly absurd, I would have done it with Hydrocyanic
Acid (DC of 158), or less aggressively with 35% Hydrogen Peroxide
(121), or back to the acids with Sulfuric Acid (100).

As far as being absurd, yes, this does qualify in spades. However, I
found I could reduce the size of a 40M antenna to nearly half by
surrounding the entire radiator with a water jacket only 40cM thick.
It has a good match, and loses roughly a quarter dB to the full size
antenna. It remains to be seen if this is just another aberration, or
is an actual solution.

73's
Richard Clark, KB7QHC

1769. Re: TT-247 and 102 whip for mobile antenna ? testing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 00:34:25 UTC
From: CW <s@earthlink.net>
Message-ID: <Ilc5g.2114$Vn.1865@newsread4.news.pas.earthlink.net>
Source record: 60211

I'd have never guessed.

"Buck" <not@this.time> wrote in message
news:arj9529ev7bgm6ruuvramglkabsrks2goh@4ax.com...

> I tested with coax and the result is that the
> antennas designed for a given frequency work much better on their
> frequencies.

1770. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 00:45:21 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <17KdnRct87-5x8jZnZ2dnUVZ_sCdnZ2d@adelphia.com>
Source record: 60212

jawod wrote:
> Howard W3CQH wrote:
>
>> Another item that also works especially on 6m, throw an old bed spring
>> on the roof!
>> 73's
>>
>> "Owen Duffy" <owen@no.where> wrote in message
>> news:3hd2525iugq7fnnabcpsqk32okj0ncklt7@4ax.com...
>>
>>> On Thu, 27 Apr 2006 12:13:46 -0700, Roy Lewallen <w7el@eznec.com>
>>> wrote:
>>>
>>>
>>>> jawod wrote:
>>>>
>>>>> I was listening to 40M the other night and a reasonably clear SSB
>>>>> signal
>>>>> came from a guy in Pennsylvania using 100 W to a rain gutter.
>>>>>
>>>>> It was apparently raining at the time in PA.
>>>>>
>>>>> All the mathematical modeling and tweaking discussed in this group ...
>>>>> I thought the successful use of a rain gutter deserved some praise
>>>>> here.
>>>>
>>>>
>>>> Why? There's nothing unusual or exceptional about it.
>>>
>>>
>>> Indeed.
>>>
>>> Whilst it might have, and is probably still often done, it is unlikely
>>> to comply with limits on Maximum Permitted Exposure to EMR. It has a
>>> host of other disadvantages (EMC incompatibility, TVI/RFI, unreliable
>>> performance to name a few).
>>>
>>> The configuration is known as a CIA Special down here, being a covert
>>> antenna. I suppose it is commonly done in places where covenants
>>> prohibit external antennas.
>>>
>>> ...
>>>
>>>> Anyone who's been a ham for a few years probably has a handful of

>>>> similar stories. What conclusions should we draw from them?
>>>
>>>
>>> Anything and everything "works" in the minds of amateurs. In the minds
>>> of some, a few QSOs is adequate proof that something "works", though I
>>> know you think differently Roy.
>>>
>>> Owen
>>> --
>>
>>
>>
>>
> I just think the great stories of rain gutters, chimneys, fire escapes,
> etc. reflect the spirit of individual experimentation that, to me, is
> the heart of ham radio. Maybe not the brain, but the heart.

I agree. I don't have any reason to want to build one of those
antennas, but they are every bit the equal of getting wrapped around the
axle with amateur radio minutiae!

And certainly a lot funnier! 8^)

- 73 de Mike KB3EIA -

1771. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 00:47:12 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <17KdnRYt878Tx8jZnZ2dnUVZ_sCdnZ2d@adelphia.com>
Source record: 60213

Frank's wrote:
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
> news:mrKdnUgqFMsZs8nZRVnyjg@bt.com...
>
>>I havn't much idea on what the present argument is all about. And I
>>have no wish to take sides.
>>
>>But -
>>
>>If Line-1 has impedance Zo1 and is a fractional wavelength L1 long,
>>
>>and Line-2 has impedance Zo2 and is a fractional wavelength L2 long,
>>
>>then when both lines are connected together and are brought into
>>so-called 1/4-wave resonance by pruning the length of one of the
>>lines, it is IMPOSSIBLE for L1 + L2 to equal 1/4-wavelength or 90
>>degrees.
>>
>>There are ALWAYS some degrees "missing" - depending on the ratio
>>Zo1/Zo2.
>>
>>Except only when Zo1 = Zo2 will L1 + L2 total 90 degrees.
>>
>>Can be proved mathematically without invoking standing or reflected
>>waves. You just have to believe in mathematics.
>>
>>Line-1, of course, is a loading coil and Line-2 is a whip.
>>
>>I hope this settles an argument.
>>
>>For a demonstration download program TWOLINES from website below.
>
>
> I don't understand the argument either. Why would anyone care
> how many degrees an antenna has; it radiates all the power
> whatever its length.

I personally wouldn't use an antenna with any less than a Master's
degree.....

- 73 de Mike KB3EIA -

1772. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 01:03:31 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <8J-dnfyFU-D-w8jZnZ2dnUVZ_tOdnZ2d@adelphia.com>
Source record: 60214

Dave Heil wrote:
> Highland Ham wrote:
> ========================
>
>> To be UV resistant the plastic should be black ,eg it contains carbon
>> black (like soot) If ,in general, plastic material is exposed to sun
>> light it deteriorates over time (especially when pigments are involved).
>> Example: coloured polypropylene rope .
>> If that material would be black ,it would have a very long life.
>> But then the sales of this material would decline ;)), hence you only
>> find coloured polypropylene rope ,blue ,orange ,red , yellow ,etc ,at
>> least in the UK.
>>
>> Here in the north of Scotland (no sun in abundance) I use
>> (blue)polypropylene guys on a 13m (40ft)mast ,which have to be
>> replaced every 7 -8 years .But it is cheap.
>
>
> I question that 7-8 year figure. Some Finnish friends put up a
> "temporary" tower with a tribander at the OH0Z site in the 1990s. They
> used new polypropylene ski rope. I went out one weekend and there lay
> the tower and tribander, victims of a guy rope failure. I'd NEVER use
> the stuff for guying or antenna supports.

I've not found the polyester stuff to be very good either. I wonder if
that stuff lasting for 7 years might be something else?

>> Polyester rope as used on sailing boats is UV resistant (even without
>> carbon black) and would last 30+ years ,but it is relatively expensive.
>
>
> Polyester is excellent material. There is a polyester rope sold under
> the "Synthetic Textiles" name here in the U.S. which is simply great.
> It is braided, not twisted. The inner core is white. There is an outer
> braid which is black. I have some which is fourteen years old. It is
> still strong and flexible.

Does it have much stretch? I'm looking for something new after
replacing my dipole the third time since January.....

>> Plastic antenna insulators (sold in the UK) are usually black , so
>> are the outdoor balun enclosures and plastic insulators on Yagi antennes.
>
>
> We're now seeing some white plastic insulators here. I tried some in

> the sun of Africa. They looked like they were pitted and deteriorating
> after three years in the sun of Botswana. I either use ceramics or make
> my own out of 1/2" thick clear plexiglass sheet or 3/4" plexi rod. That
> yellows but doesn't otherwise seem to deteriorate.

I've been using black plastic eggs sold for electric fencing apps.
They've worked well for about 5 years now.

- 73 de Mike KB3EIA -

1773. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 02:00:00 UTC
From: Buck <not@this.time>
Message-ID: <9pqa529e7699iqm0jbenupurieou79u1ro@4ax.com>
Source record: 60215

On Mon, 01 May 2006 00:07:08 GMT, larry d clark
<buddycl@nospam_swbell.net> wrote:

>Buck wrote:
>> Can anyone tell me about this RoomCap Antenna?
>>
>> The best I can find on the antenna is a picture of what looks like a
>> piece of PVC with a capacity hat on it.
>>
>> I keep getting advertisements on the email reflectors and when I check
>> the website, it asks for me to email for more information. I have
>> done so several times and never received a response.
>>
>> What can you all tell me about this antenna?
>>
>> Thanks,
>> Buck
>>
>
>http://home.datacomm.ch/hb9abx/ant--abx-e.htm
>
>larry
>kd5fo

Thanks, larry, but I have been there. There is not information
directly related to the antenna other than the hype about the antenna
from the maker. I wanted to know more details about whether or not it
is good and just how it is made up.

--
73 for now
Buck
N4PGW

1774. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 02:12:23 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1146449543.853365.112330@j73g2000cwa.googlegroups.com>
Source record: 60216
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 30 Apr 2006 14:54:47 -0700, "an old friend" <kb9rqz@yahoo.com>
?
> >
> >I have a valid license and radio equipment what would I need a waver
> >for?
>
> Hmmm, you tell us.
why?

you are making the charge you suport
>You certainly don't seem too bright. I am merely
> making an observation of a known quantity. You act like a retard so
> therefore I assume that you are a retard. Die of HIV, loser.

you just engage in libel and don't post anything on radio I do but you
don't

1775. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 03:12:00 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <L8GdnRT2e6quH8jZnZ2dnUVZ8qudnZ2d@bt.com>
Source record: 60220

For those of you who may be unfamiliar with the mathematics of
transmission lines, download program TWOLINES and enter the following
practical values -

Line-1 represents the loading coil.
Line-2 represents the whip to be pruned for 1/4-wave resonance.

Enter Zo1 = 6000 ohms, a practical value.
Enter electrical length L1 = 0.15 wavelengths.
Enter attenuation = 0.1 dB for wire loss in coil.

Enter Zo2 = 400 ohms, a practical value.
Enter electrical length L2 = 0.0077 wavelengths.
Enter attenuation = 0.001 dB

Enter open-circuit load resistance = 100 Megohms and load reactance =
100 Megohms.

To check that the circuit is in 1/4-wave resonance, vary plus or minus
length of Line-2 for zero or minimum input reactance.

The input resistance of the coil or Line-1 is about 16 ohms, a typical
value.

But L1 + L2 = 0.1577 wavelengths = only 57 degrees.

The missing 90 - 57 = 33 degrees are just not needed for resonance.
So why is everybody making such a fuss about it?

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

1776. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 03:12:15 UTC
From: AC7PN <brunius@rockisland.com>
Message-ID: <1146453135.097754.114450@y43g2000cwc.googlegroups.com>
Source record: 60217

Your are right Roy & Cecil. I just confirmed using NEC and looked it up in the ARRL hand book as well. I' happy to not be carrying around that misconception any more. I'm just a little embarased having passed myself off as some kind of expert.

I've spent a lot of time using NEC and have actually built a lot of the antennas I've designed using it, with excellent results. It just goes to show that successfully using CAD doesn't neccessarily impart wisdom.

I'm sure the larger conductor has less inductance but as Yuri Blanarovich pointed out earlier the bigger conductor has more capacitance to free space and that effect must dominate the effect inductance reduction.

1777. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 03:24:29 UTC
From: sailtamarack@yahoo.ca
Message-ID: <1146453869.698696.76370@j73g2000cwa.googlegroups.com>
Source record: 60218

>From page 22.2 of the 2005 ARRL Handbook

"CONDUCTOR SIZE"

"The impedance of the antenna also depends on the diameter of the conductor in relation to the wavelength. If the diameter of the conductor is increased, the capacitance per unit length increases and the inductance per unit length decreases. Since the radiation resistance is affected relatively little, the decreased L/C ratio causes the Q of the antenna to decrease so that the resonance curve becomes less sharp with change in frequency. This effect is greater as the diameter is increased, and is a property of some importance at the very high frequencies where the wavelength is small."

Lots of interesting graphs and charts in the ARRL Antenna Handbook as well.

Roger

1778. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 03:26:08 UTC
From: "Robert Lay (W9DMK)" <nobody@crosslink.net>
Message-ID: <5rva521398tlbk0dbn4g96jsafkqdj2mdb@4ax.com>
Source record: 60219

On Sun, 30 Apr 2006 15:55:15 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Tom, W8JI wrote:
>"--Harrison probably hasn`t even owned a bug catcher coil being a
>technician class license holder."
>
>You don`t need to own things to understand them.
>
>I have a technician class radio amateur license renewed after its
>initial ten-hear term. My First FCC license was a 1st class
>radiotelephone license passed on my first attempt at the test in the
>Houston FCC Office in early 1949. Shortly thereafter I got a call from
>a Houston broadcaster that resulted in employment at a plant housing two
>AM atations which shared a common antenna system. From there I went to
>work in medium-wave and shortwave broadcasting stations for a dozen
>years, got several college degrees including a BSEE.
>
>I took a job with a petrochemical conglomerate which called me in 1960
>saying that it intended to "automate" its operations and they thought I
>might be helpful. In their employment, I installed low-frequency
>aircraft beacons, 6-GHz microwave, shortwave AM, FM, and SSB. Installed
>telephones and electric power plants.
>
>The conglomerate found, produced, transported, traded, refined.
>manufactured and marketed oil and gas and products made from them. That
>was only a start. The company mined materials from the earth and from
>the sea bottom. It farmed, manufactured tractors and automobile
>components and tools. It built nuclear submarines, surface ships,
>natural gas tankers which consumed their own boil off, and it laid pipe
>across Canada and the U.S.A. It even consulted for other countries on
>the best ways to install and operate pipelines. I worked with a handfull
>of others for the subsidiary that did that for awhile. The company sold
>insurance because insurance companies have mush of the capital, and for
>a similar reason it bought and operated banks.. We made PVC and other
>chemical products. I worked in many of the company`s divisions when they
>asked for my services. We eventually put the pipeline divison under
>computer control from from Houston dispatcher`s office. Hundred of
>remotes were involved between Maine and Mexico.
>
>I`ve wound plenty of coils and tuned many mobile whips with my own
>hands. We used HF radios from Ecuador to Tierra del Fuego. I`ve worked
>on HF and VHF radios in the company`s aircraft. When I retired in 1986,
>I was manager of telecommunications.

>
>Best regards, Richard Harrison, KB5WZI

Bravo, Richard!

1779. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 03:43:10 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <jtf5g.8087$QP4.6867@fed1read12>
Source record: 60221

"Bob" <warthog9@pacbell.net> wrote in message
news:96N4g.77517$dW3.54166@newssvr21.news.prodigy.com...
> The J-pole crowd seems to tout fantastic claims about this antenna and I
> have never been impressed. Many people have tested the J-pole against
> other easy to make antennas and the end fed half wave J-pole usually
> does not stand up to even it's brother, the center fed half wave dipole.
> I assume the decrease in performance is due to mistakes in assembling
> and tuning the matching section. Here is a link to a group that tested
> some J-poles against other antennas in the CA desert and the J-pole lost
> to even simple 1/4 wave ground plane types.
> www.geocities.com/SiliconValley/2775/anttest.html

< snip >

A quick look at the numbers doesn't make the j-pole look so all-fired bad. "Losing" by 1 dB or so isn't a serious loss. Ham radio isn't exactly the Kentucky Derby.

I don't know what "fantastic claims" you've heard, but my affinity for the j-pole comes from its simplicity and durability. It's a halfwave vertical that requires no ground plane and can often be matched to 1:1 at the sweet spot. Mounting is a dream -- it even works if you drop the low end into a plumbing vent pipe. (How would I know that? ;-)

I have never built a center-fed halfwave, but we use a bunch of them in the Navy -- call them "stovepipes" because of the way the fiberglass housings look -- and they work very, very well. The elements are large metal cylinders, tending to make them quite broadband. I do not know how they're fed ... balun or what.

John , KD6VKW

1780. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 03:52:50 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <nCf5g.8089$QP4.7441@fed1read12>
Source record: 60222

"jawod" <jawod@fuse.net> wrote in message news:4454C4B7.4060503@fuse.net...

< snip >

> I just think the great stories of rain gutters, chimneys, fire escapes,
> etc. reflect the spirit of individual experimentation that, to me, is
> the heart of ham radio. Maybe not the brain, but the heart.
>
> John
> AB8WH

Me too. Oh, how much fun we have right after saying, "I wonder what
happens if ... "

Yeah, sometimes it's a burnt finger or a blown fuse, but even then we
usually benefit from it.

1781. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 04:18:42 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <R9adnaki9ro2T8jZnZ2dnUVZ8t2dnZ2d@bt.com>
Source record: 60225

<sailtamarack@yahoo.ca> wrote in message
news:1146453869.698696.76370@j73g2000cwa.googlegroups.com...
> >From page 22.2 of the 2005 ARRL Handbook
>
> "CONDUCTOR SIZE"
>
> "The impedance of the antenna also depends on the diameter of the
> conductor in relation to the wavelength. If the diameter of the
> conductor is increased, the capacitance per unit length increases
and
> the inductance per unit length decreases. Since the radiation
> resistance is affected relatively little, the decreased L/C ratio
> causes the Q of the antenna to decrease so that the resonance curve
> becomes less sharp with change in frequency. This effect is greater
as
> the diameter is increased, and is a property of some importance at
the
> very high frequencies where the wavelength is small."
>
> Lots of interesting graphs and charts in the ARRL Antenna Handbook
as
> well.
==========
A nice summary.

But to be more precise, it is the ratio of conductor diameter over
length which matters.

Inductance and capacitance change very slowly with diameter/length.
The changes are hardly noticeable.

L = 0.2 * Length * (Ln(4 * Length / Dia) -1) microhenrys.

C = 55.55 * Length / (Ln(4 * Length / Dia) -1) picofarads.

Zo = Sqrt(L / C) = 60 * Ln(4 * Length / Dia) -1) ohms.

Antenna Q = 2 * Pi * Freq * L / (Distributed Radiation Resistance).

For a half-wave dipole the distributed radiation resistance is 146
ohms, or twice the feedpoint resistance.

Reg.

1782. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 05:52:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mp3b52hmcaofdl4carhr2524a695hfl2u9@4ax.com>
Source record: 60223

On 30 Apr 2006 20:12:15 -0700, "AC7PN" <brunius@rockisland.com> wrote:

>I'm sure the larger conductor has less inductance

Hi Robert,

For a wire, that is not in dispute.

>but as Yuri
>Blanarovich pointed out earlier the bigger conductor has more
>capacitance to free space and that effect must dominate the effect
>inductance reduction.

And yet it does not. Components that are significant in size with relation to wavelength do not exhibit the same qualities. That much is glaringly obvious.

The problem here is one of a Transform acting upon the expected outcome. It is generally cautioned here not to treat an antenna as a transmission line, but this is cautious to the point of ignoring the solution.

Schelkunoff developed a general formula for the dipole by employing a biconical structure. This structure operates in the TEM mode and fits radial expressions for fields naturally described in Maxwell's curl equations which would be tedious to describe here - so we simple cut to the chase.

Schelkunoff reveals, mathematically, that this transmission line analysis presents a finite terminating condition for the current traveling radially (that is, along the wire out towards the end). Hence, the biconical form as transmission line never terminates in an open.

In developing this model towards the thin radiator, the angle of the cones of the biconical structure fall to a very small value. With this, the biconical math also simplifies. This simplification does approach the transmission line condition of an open termination.

The thick radiator falls in between as it is obviously neither thin, nor conical in shape. As a consequence, neither is it a transmission line that has an uniform Zc along its length. The formulas usually used to describe its Zc are an average.

The easy answer comes from this. The two conditions of going from thick to thin involve two different mathematical basis (providing you aren't simply going from kind-of-thin to kind-of-thick). This mathematical basis is transmission line math built on wave mechanics,

not inductors and capacitors. Those are components whose geometries
and size wavelength has condemned to less than useful analogies.

73's
Richard Clark, KB7QHC

1783. Re: Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 08:10:06 UTC
From: Jeff <jeff@local.host>
Message-ID: <e34fm5$t82$1@emma.aioe.org>
Source record: 60224

>However, I
> found I could reduce the size of a 40M antenna to nearly half by
> surrounding the entire radiator with a water jacket only 40cM thick.
> It has a good match, and loses roughly a quarter dB to the full size
> antenna. It remains to be seen if this is just another aberration, or
> is an actual solution.
>
> 73's
> Richard Clark, KB7QHC

Surely it is your model that is an aberration. Did it include such things as the loss tangent of the dielectric and the effects of the resistivity of the liquid ?

Di-electric loading is a valid concept, but it has to be done sensibly, and modelled even more carefully, taking ALL the effects of the di-electric into account. GIGO.

Regards
Jeff

1784. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 09:14:22 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <CRMn4gKuFdVEFADN@ifwtech.co.uk>
Source record: 60026

Highland Ham wrote:
>
>Plastic antenna insulators (sold in the UK) are usually black , so are
>the outdoor balun enclosures and plastic insulators on Yagi antennes.
>

The same material can be either good or useless, depending on the application.

For example, Delrin has been used very successfully for the mounting pillars of PA tank coils at the 1.5kW level because the dielectric stress happens to be low there... yet I once had a 20W VHF transmitter that melted Delrin in 20 seconds, simply because I was trying to use it in the wrong place.

Likewise, black carbon-loaded plastic can be fine in some antenna applications, but foolish in others. Good locations would generally include long spreaders for open-wire line, because the wide spacing reduces the electric field gradient between the wires. The same applies to centre insulators for multiband doublets, because the connection points are usually several inches apart.

Driven element connections for VHF/UHF yagi antennas are OK because this is always a low-impedance, low-voltage point. The same applies to standoff insulators for parasitic elements. I never heard of black plastic breaking down in these locations - not for electrical reasons - so you can safely concentrate on mechanical strength and UV resistance.

An area where plastics are notably worse than ceramics is surface tracking. This is important for some antenna applications, because a surface track can start along a build-up of atmospheric dirt. If a plastic (or any organic insulator like phenolic) begins to break down along its surface, the losses in the carbonized track become much worse, and the track continues to eat into the base material.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

1785. Re: Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 09:30:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125bl9gg0e9hu64@corp.supernews.com>
Source record: 60027

Jeff wrote:
>
> Surely it is your model that is an aberration. Did it include such things as
> the loss tangent of the dielectric and the effects of the resistivity of the
> liquid ?
>
> Di-electric loading is a valid concept, but it has to be done sensibly, and
> modelled even more carefully, taking ALL the effects of the di-electric into
> account. GIGO.

The flaw is that the "wire insulation" feature of EZNEC is valid only for thin coatings, such as those typically found on insulated wire. I suspect it may also be invalid also for extreme values of dielectric constant. I don't at present know exactly at what thickness or dielectric constant the calculation becomes invalid, so results from models with exceptionally thick and/or high dielectric insulation should be viewed with some skepticism.

These limitations aren't spelled out in the EZNEC manual, an oversight on my part for which I apologize. They will be included in the next update to the manual, which will probably be included with the next program update (v. 4.0.27).

Roy Lewallen, W7EL

1786. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 12:48:11 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <hsn5g.3$AR7.1@fe09.lga>
Source record: 60028

There you go again.
What applies to you , you are trying to slap on others.
Reputation is judged by others, judging our doings and record.
How is your statement "JI Engineering" made in public and publications
justified?

I will not go into listing my accomplishments and professional background
like Richard did (it would be another big egg on your pea brain and big
mouth), I don't make living of ham radio and I don't care what you think.
Fair warning back to you! You starting to sound like Freaktenna, nice going!

73 Yuri

<w8ji@akorn.net> wrote in message
news:1146481819.035769.4590@y43g2000cwc.googlegroups.com...
> Yuri,
>
> Just a fair warning.
>
> I'd be very careful what you say in public.
> At some point your big mouth and very small brain will get you into
> trouble.
>
> Do not be too bold with your personal comments when you do not know
> what you are saying and your statements are full of errors. False
> statements if they cause harm will backfire on you, I can promise that.
>
> On a similar topic, don't blame others for your lack of self-esteem.
> When you are and how you feel about yourself isn't anyone's problem but
> you own. You make your own reputation Yuri. Please don't try to make
> me look as bad as you.
>
> Tom
>

1787. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 13:30:05 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <x3o5g.316$fb2.138@newssvr27.news.prodigy.net>
Source record: 60029

Reg Edwards wrote:

> For those of you who may be unfamiliar with the mathematics of
> transmission lines, download program TWOLINES and enter the following
> practical values -
>
> Line-1 represents the loading coil.
> Line-2 represents the whip to be pruned for 1/4-wave resonance.
>
> Enter Zo1 = 6000 ohms, a practical value.
> Enter electrical length L1 = 0.15 wavelengths.
> Enter attenuation = 0.1 dB for wire loss in coil.

Ignoring losses and starting at 0-j0, plotting this value
on a Smith Chart normalized to 6000 ohms, the normalized
value is -j1.38

-j1.38 * 6000 = -j8280 ohms

> Enter Zo2 = 400 ohms, a practical value.
> Enter electrical length L2 = 0.0077 wavelengths.
> Enter attenuation = 0.001 dB

Starting at 0-j*infinity and plotting backwards, this value
on a Smith Chart normalized to 400 ohms is -j20.7

-j20.7 * 400 = -j8280 ohms

> But L1 + L2 = 0.1577 wavelengths = only 57 degrees.

The abrupt jump from -j1.38 to -j20.7 provides a 66 degree
phase shift in the angle of the reflection coefficient as
read off the Smith Chart.

> The missing 90 - 57 = 33 degrees are just not needed for resonance.
> So why is everybody making such a fuss about it?

The missing 33 degrees are there, provided by the phase shift
in the reflection coefficient. The angle of the reflection
coefficient in the stinger at the impedance discontinuity is
~6 degrees. The angle of the reflection coefficient in the
coil at the impedance discontinuity is ~72 degrees.

72 - 6 = a 66 degree jump in the angle of the reflection
coefficient.

That equates to the missing 33 degrees of antenna. The wave
that is only 3 degrees back from the tip reflection point

is suddenly only 54 degrees from the current maximum point.

It appears to me that the interference of the forward and reflected waves at the impedance discontinuity causes an actual 33 degree phase shift. How to analyze what happens at such an impedance discontinuity is covered in my energy analysis article at:

http://www.qsl.net/w5dxp/energy.htm

I will try to do that analysis sometime today.
--
73, Cecil http://www.qsl.net/w5dxp

1788. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 13:31:00 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <44560cd1_2@newsfeed.slurp.net>
Source record: 60030

"Reg Edwards"
> The missing 90 - 57 = 33 degrees are just not needed for
> resonance. So why is everybody making such a fuss about it?

An antenna * system * does not need to have X number of degrees to be resonant. It only needs to have ~zero reactance at its feedpoint -- which, for electrically short AND long radiators can be achieved by use of a suitable matching network.

Such networks don't add or subtract electrical degrees, however. They only reduce/cancel the natural reactance of the physical radiator in use.

RF

1789. spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 13:47:45 UTC
From: electro <electromagnetic377@yahoo.com>
Message-ID: <1146491265.725531.281770@i39g2000cwa.googlegroups.com>
Source record: 60031

under unlicensed 2.4GHz FCC part 15 for digital modulation
system(non-spread spectrum), it says that the
1. maximum conducted power is 1W
2. the spectral density be not greater than 8dB for every 3khz band
during continous transmission
3. the 6-dB bandwith is at least 500khz

question:
1. what is spectral density in this sense and its significance?
2. how can i measure my spectral density?
3. how does 1, 2 and 3 relate to each other?

1790. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 14:07:25 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <k-SdnVtmbZaHi8vZnZ2dnUVZ_sOdnZ2d@comcast.com>
Source record: 60032

Yuri and Tom,

AD Hominem gains nothing except to raise blood pressure and raise hostility. It certainly does not contribute to the discussion.

Reasonable people can and do disagree.

Please, in the interest of Harmony and Respect, let's move on.

/S/ Deacon Dave (Rev. Mr.), W1MCE

1791. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 14:27:09 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <1Vo5g.1304$g01.285@trnddc01>
Source record: 60033
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc

"stargatesg1" <nospam@here.net> wrote in message
news:uKb4g.43$Nh7.12@trnddc01...
> Anyone ever try using plastic drywall anchors for yagi antenna insulators?
> I'm wondering how they will hold up to UV and the weather in general.
>
> Thanks,
> RoD
>
>Hi Rod,
Someone may have already given this response and I missed it. Charles Byers
has both insulators and element "keepers" for the insulators. A Google
search under this name should turn up the product. Seem to recall they are
black delrin.

73,
Dale W4OP

1792. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 15:08:27 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146496107.299262.109830@i40g2000cwc.googlegroups.com>
Source record: 60034

I'm not going to bother trying to look it up--but is that not supposed to be something like 8dBm/3kHz BW, or some such? 8dB without a reference doesn't mean much.

If it's 8dBm/3kHz, then the meaning should be obvious: in any 3kHz band there may not be more than +8dBm power (I guess around 7 milliwatts). Spectral density is commonly measured with a spectrum analyzer; many modern ones have band markers that will let the instrument perform a band power measurement.

If you spread 1 watt uniformly over 500kHz, you'd have 1W*3kHz/500kHz, or 6mW, in each 3kHz bandwidth. So the +8dBm limit would mean that the power should be spread very nearly uniformly over that band. (Why did they use units of watts in one place and dBm in another??)

Cheers,
Tom

1793. Re: Velocity Factor and resonant frequency

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 15:37:29 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <ZWp5g.66163$F_3.46392@newssvr29.news.prodigy.net>
Source record: 60035

Dave wrote:
> Yuri and Tom,
>
> AD Hominem gains nothing except to raise blood pressure and raise
> hostility. It certainly does not contribute to the discussion.
>
> Reasonable people can and do disagree.
>
> Please, in the interest of Harmony and Respect, let's move on.
>
> /S/ Deacon Dave (Rev. Mr.), W1MCE
>

This is one Christian I can agree with. It's hard to see how anyone
can get exercised over a coil of wire.
73,
Tom Donaly, KA6RUH

1794. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 15:41:58 UTC
From: Dean Craft <harolddcraft@bellsouth.net>
Message-ID: <x1q5g.24619$Kn4.19242@bignews2.bellsouth.net>
Source record: 60036

"Richard Fry" <rfry@adams.net> wrote in message
news:44560cd1_2@newsfeed.slurp.net...
>
>
> An antenna * system * does not need to have X number of degrees to be
> resonant. It only needs to have ~zero reactance at its feedpoint --
> which, for electrically short AND long radiators can be achieved by use of
> a suitable matching network.
>
> Such networks don't add or subtract electrical degrees, however. They
> only reduce/cancel the natural reactance of the physical radiator in use.
>
> RF

The above post is without doubt, the clearest, cleanest and to the point statement of any made to date in this whole silly chain of posts! It demonstrates a clear and firm grasp of antenna theory. Something that is so obviously missing from 99 percent plus of the bulk of posts on the subject!

Dean -- W4IHK

1795. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 16:13:56 UTC
From: Jack Hamilton <jfh@acm.org>
Message-ID: <7pcc529pkjai8it772egva9u2uisjmrm1p@4ax.com>
Source record: 59886
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Signal Chaser <em@il.here> wrote:

>In a way, it's sort of like sign-language. Two people that don't know
>each others tongue but know sign language can still communicate.

Actually, there are various sign languages, often corresponding to
national languages, and I've been told that although they tend to have
more in common than spoken languages, a person who can speak one can't
necessarily understand the others.

Jack Hamilton
jfh@acm.org

Though in a state of society some must have greater
luxuries and comforts than others, yet all should have
the necessities of life; and if the poor cannot exist,
in vain may the rich look for happiness or prosperity.
The legistlature is never so well employed as when they
look to the interests of those who are at a distance
from them in the ranks of society. It is their duty
to do so; religion calls for it; humanity calls for it;
and if there are hearts who are not awake to either of
those feelings, their own interests would dictate it.

Sir Lloyd Kenyon, Rex vs. Rusby, 1800

1796. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 16:26:29 UTC
From: "Robert Lay (W9DMK)" <nobody@crosslink.net>
Message-ID: <dpcc52padrk9m2ke4n2lvolrtbb9snnh50@4ax.com>
Source record: 60037

On 1 May 2006 06:47:45 -0700, "electro" <electromagnetic377@yahoo.com>
wrote:

>under unlicensed 2.4GHz FCC part 15 for digital modulation
>system(non-spread spectrum), it says that the
>1. maximum conducted power is 1W
>2. the spectral density be not greater than 8dB for every 3khz band
>during continous transmission
>3. the 6-dB bandwith is at least 500khz
>
>question:
>1. what is spectral density in this sense and its significance?
>2. how can i measure my spectral density?
>3. how does 1, 2 and 3 relate to each other?

This is just a guess, but let's see what we can do to make some sense
out of this.

If you were hoping that the 1 watt of power would be evenly
distributed across the 3 kHz bandwidth, that would be for the purpose
of making sure that no one would be putting all of his 1 watt into a
single frequency, which would be quite a strong concentration of power
in comparison to having it spread out over the 3 kHz. The idea being
that the power when concentrated is very noticeable and might cause
QRM, whereas the same wattage spread out evenly over 3 kHz would
barely exceed the background noise and would not be noticeable.

So, you might want to require that signals not be very "peaky", or
concentrated. In order to put limitations on "peakiness", you might
require it to be "at least so wide" and "no higher than x" in units of
spectral density.

Assume that in the above requirement that the 500 Hz bandwidth
requirement is to be interpreted as their requirement that avoids the
signal being concentrated in a narrow band of frequencies. Also assume
that the maximum power density in that 500 Hz bandwidth should be
commensurate with the entire 1 watt being distributed over only 500 Hz
instead of 3 kHz. Notice how we have traded off the requirements so
that they are being applied to 1/6th of the 3 kHz. If we are allowed
to concentrate all of our power in 1/6th of the bandwidth, then it
follows that we would be required to keep the power density in that
bandwidth at no higher than 6X the level it would have when spread out
over the entire 3 kHz.

I find that it is probably not a coincidence that the 6:1 ratio is
almost exactly 8 dB in power ratio.

1797. Re: Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 16:38:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2adc521i9itsa47hsbqcp0tnok4ml8c5ov@4ax.com>
Source record: 60038

On Mon, 1 May 2006 09:10:06 +0100, "Jeff" <jeff@local.host> wrote:

>Surely it is your model that is an aberration. Did it include such things as
>the loss tangent of the dielectric and the effects of the resistivity of the
>liquid ?

Hi Jeff,

An aberration was already included in the list of possible outcomes. I did not include such things as you suggest because there was no mechanism to. However, de-ionized water is not that hard to come by, but would certainly lose that characteristic quickly. As de-ionized (and further treated) water has none of the defects you anticipate, I certainly didn't lose sleep in the prospects of its use in HF.

Further, I do have access to a bulk of work employing water loaded antennas (peer reviewed and not just more vanity publishing) that can be used to test reality against theory (as corrupted as it may be by the aberration factor).

73's
Richard Clark, KB7QHC

1798. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 17:29:20 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146504560.509236.51040@j33g2000cwa.googlegroups.com>
Source record: 60039

I think it's a BIG mistake to be writing about "velocity factor" in this thread (and perhaps also in some current, related threads). The reason is that it presupposes behaviour that is just like a TEM transmission line, and clearly it is not when you get to the fine details. Until we better understand just what is going on, I propose that we simply say that resonance occurs for a wire shorter than 1/4 freespace wavelength, when that wire is fed against a ground plane to which it is perpendicular, and that the thicker the wire, the shorter it is at resonance when compared with the freespace wavelength. The effect can be described with an emperical equation, of course. But to invoke "velocity factor" assumes something about the solution which may well lead you away from the correct explanation.

I don't really expect many will take this seriously--there seems to be too much invested in explaining everything in terms of behaviour that seems familiar. It's a bit like saying a photon is a particle (or a wave). It is not--it is simply a quantum; and it behaves differently from particles we know, and behaves differently from waves we know from our macro-world experience.

The transmission-line analog is a very useful one for practical antenna engineering, just as considering loading elements as lumped reactances (perhaps with parasitic lumped reactance and resistance as appropriate) is useful for practical engineering. But that doesn't mean it fully explains the behaviour in detail.

Cheers,
Tom

1799. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 17:47:26 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <OQr5g.380$fb2.287@newssvr27.news.prodigy.net>
Source record: 60040

Dean Craft wrote:
> The above post is without doubt, the clearest, cleanest and to the point
> statement of any made to date in this whole silly chain of posts! It
> demonstrates a clear and firm grasp of antenna theory.

A self-resonant coil is obviously 90 degrees long. If one
removes 5% of the turns and replaces them with a stinger
to bring the system back to resonance at the same frequency,
do you really believe the coil has magically changed from
90 degrees long to zero degrees long?
--
73, Cecil http://www.qsl.net/w5dxp

1800. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 18:09:57 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <V9s5g.387$fb2.273@newssvr27.news.prodigy.net>
Source record: 60041

K7ITM wrote:
> But to
> invoke "velocity factor" assumes something about the solution which may
> well lead you away from the correct explanation.

For the feedpoint impedance to be purely resistive, i.e.
resonant, for a standing wave antenna, the reflected wave
must get back into phase with the forward wave. Velocity
factor is a way of explaining how/why that happens. The
diameter of the conductor no doubt appears in the VF
equation.
--
73, Cecil http://www.qsl.net/w5dxp

1801. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 18:17:25 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146507445.103318.321540@j73g2000cwa.googlegroups.com>
Source record: 60042

Thanks for fulfilling my expectation.

Cheers,
Tom

1802. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 18:38:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <1Bs5g.392$fb2.83@newssvr27.news.prodigy.net>
Source record: 60043

K7ITM wrote:
> Thanks for fulfilling my expectation.

EZNEC can be used to verify the relationship of conductor
diameter to velocity factor. Once the conductor diameter
exceeds a certain limit, the standing wave current at the
ends of that conductor undergo a 180 degree phase change,
indicating a longer length than resonance.

Tom, when you can determine the position and velocity of
every electron in the system, please get back to us. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1803. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 19:58:16 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <FoydnccB_vab9MvZRVny0Q@bt.com>
Source record: 60045

```
> EZNEC can be used to verify the relationship of conductor
> diameter to velocity factor. Once the conductor diameter
> exceeds a certain limit, the standing wave current at the
> ends of that conductor undergo a 180 degree phase change,
> indicating a longer length than resonance.
>
=======================================

A cylinder has a flat circular end. Antenna wires and rods are
cylinders. You should be reminded that the true length of the antenna
is its straight length PLUS the radius of the flat circular end.
----
Reg.
```

1804. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 20:00:44 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <125cq81luegl75b@corp.supernews.com>
Source record: 60044
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.homebrew,rec.radio.amateur.misc

stargatesg1 wrote:
> Anyone ever try using plastic drywall anchors for yagi antenna insulators?
> I'm wondering how they will hold up to UV and the weather in general.
>
> Thanks,
> RoD
>
>
Go to a new home site (under construction) and pick up a few inches of
PVC 1/2 in. or 3/4 in. cut them to an appealing size and drill some
holes in them at their ends and BAM, insulators!

I like mine professional looking so I buy them from Buxcomm.com. They
are inexpensive and in several designs or styles and Buck got good
prices too!!

Butch KF5DE

1805. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 20:08:54 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <44566a12_1@newsfeed.slurp.net>
Source record: 60046

"Cecil Moore"
> A self-resonant coil is obviously 90 degrees long.

A coil is not the electrical equivalent of a linear, physical, ~90-degree, self-resonant radiator. How well do you expect your self-resonant coil to radiate?

When you add a stinger to a coil, it is the stinger that radiates the great majority of the applied power. The coil just makes it possible/practical for the tx to supply r-f power to that antenna system that the stinger CAN radiate, by improving the Z match between the source and the feedpoint.

RF

1806. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 20:13:14 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <NoGdnQPKKNlK9svZnZ2dnUVZ_vudnZ2d@comcast.com>
Source record: 60047

Dean Craft wrote:

SNIPPED
>
> The above post is without doubt, the clearest, cleanest and to the point
> statement of any made to date in this whole silly chain of posts! It
> demonstrates a clear and firm grasp of antenna theory. Something that is so
> obviously missing from 99 percent plus of the bulk of posts on the subject!
>
> Dean -- W4IHK
>
>

Dean, maybe we can start a discussion about the missing 1%

"Something that is so obviously missing from 99 percent..."

1807. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 20:14:57 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <NoGdnQLKKNmg8cvZnZ2dnUVZ_vudnZ2d@comcast.com>
Source record: 60048

dBm = watts = 0.001 watt as a reference

K7ITM wrote:

> I'm not going to bother trying to look it up--but is that not supposed
> to be something like 8dBm/3kHz BW, or some such? 8dB without a
> reference doesn't mean much.
>
> If it's 8dBm/3kHz, then the meaning should be obvious: in any 3kHz
> band there may not be more than +8dBm power (I guess around 7
> milliwatts). Spectral density is commonly measured with a spectrum
> analyzer; many modern ones have band markers that will let the
> instrument perform a band power measurement.
>
> If you spread 1 watt uniformly over 500kHz, you'd have 1W*3kHz/500kHz,
> or 6mW, in each 3kHz bandwidth. So the +8dBm limit would mean that the
> power should be spread very nearly uniformly over that band. (Why did
> they use units of watts in one place and dBm in another??)
>
>
> Cheers,
> Tom
>

1808. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 20:20:59 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146514859.883347.202460@u72g2000cwu.googlegroups.com>
Source record: 60049
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 30 Apr 2006 19:12:23 -0700, "an old friend" <kb9rqz@yahoo.com>
> wrote:
>
> >
> >Fred wrote:
> >> On 30 Apr 2006 14:54:47 -0700, "an old friend" <kb9rqz@yahoo.com>
> >>?
> >> >
> >> >I have a valid license and radio equipment what would I need a waver
> >> >for?
> >>
> >> Hmmm, you tell us.
> >>why?
> >>
> >>you are making the charge you suport
> >>>You certainly don't seem too bright. I am merely
> >> making an observation of a known quantity. You act like a retard so
> >> therefore I assume that you are a retard. Die of HIV, loser.
> >>
> >>you just engage in libel and don't post anything on radio I do but you
> >>don't
>
> Is it libel or an observation made of your behavior?
it is libel even if it were an observation fred
>If you don't want
> to be thought of as a retard, then learn how to spell and interact
> with other human beings. Things might change, but for now everyone has
> a negative perception of you and I am sure we all want you to die from
> HIV.
meaning yuou are confessed to being ahte filled fred
> I am still waiting for a radio post by you.

I made one yesterday or was it the day before in the thread on RC
controllors

have a nice day troll

1809. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 20:45:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125css3of7lppba@corp.supernews.com>
Source record: 60050

Reg Edwards wrote:
>
> A cylinder has a flat circular end. Antenna wires and rods are
> cylinders. You should be reminded that the true length of the antenna
> is its straight length PLUS the radius of the flat circular end.
> ----
> Reg.

What do you mean by "true" length?

Roy Lewallen, W7EL

1810. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 21:01:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <xKOdnajHlbJU6svZRVnytw@bt.com>
Source record: 60051

> What do you mean by "true" length?
>
>
You know very well what I mean. Have you nothing else better to do
with your time?

1811. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 21:11:28 UTC
From: Dean Craft <harolddcraft@bellsouth.net>
Message-ID: <GQu5g.4188$QU3.3540@bignews8.bellsouth.net>
Source record: 60052

"Dave" <W1MCE@comcast.net> wrote in message
news:NoGdnQPKKNlK9svZnZ2dnUVZ_vudnZ2d@comcast.com...
> Dean Craft wrote:
>
> SNIPPED
>>
>> The above post is without doubt, the clearest, cleanest and to the point
>> statement of any made to date in this whole silly chain of posts! It
>> demonstrates a clear and firm grasp of antenna theory. Something that is
>> so obviously missing from 99 percent plus of the bulk of posts on the
>> subject!
>>
>> Dean -- W4IHK
>>
>>
>
> Dean, maybe we can start a discussion about the missing 1%
>
> "Something that is so obviously missing from 99 percent..."
>

I have all but given up on that possibility. If its not heated immature
school yard rhetoric driven by obvious professional jealousy, then its mind
playing games just as has appeared since my earlier post. The troll effect
all too frequently takes over and destroys any serious chain of thought.

Dean -- W4IHK

1812. Re: Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 21:24:48 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <D0v5g.35$AR7.32@fe09.lga>
Source record: 60053

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:2adc521i9itsa47hsbqcp0tnok4ml8c5ov@4ax.com...

>
> Further, I do have access to a bulk of work employing water loaded
> antennas (peer reviewed and not just more vanity publishing) that can
> be used to test reality against theory (as corrupted as it may be by
> the aberration factor).
>
> 73's
> Richard Clark, KB7QHC

OK, here is the one for the experienced and theoriticians:

How about antenna made of wires, submerged just below the surface of water, partially salinated (brakish) or sea water. Would it couple to this huge "water antenna" (variations of insulated vs. bare elements) or connect/tap to it?

One experience in this area was, when I operated from VE1ZZ on 160, he has one Eu Beverage that is terminated on the stainless steel hubcap in the ocean. That sucker beats any other "superior" beverages (staggered or phased pairs).

Yuri, K3BU

1813. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 21:48:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125d0hqiq1jstb3@corp.supernews.com>
Source record: 60054

Reg Edwards wrote:
>> What do you mean by "true" length?
>>
>>
> You know very well what I mean. Have you nothing else better to do
> with your time?

No, I don't know what you mean. And your response doesn't give me a great deal of confidence that you do, either.

The reactance of an infinitely thin half wavelength dipole is 42.5 ohms, meaning that it isn't resonant. An infinitely thin dipole of length 0.496 wavelength, or about 1% shorter, is resonant. So my first question is whether the "true length" of an infinitesimally thin resonant dipole is 0.496 or 0.5 wavelength. (If 1% is too little to quibble about, why are we concerned about a length difference of a wire diameter?)

If we increase the diameter of the antenna to 1/50 its length, the "true length" would then be 1.02 times the "true length" of the infinitesimally thin dipole. Yet we have to reduce the antenna length by nearly 7% to maintain resonance. So the "true length" doesn't have anything obvious to do with resonant length, nor does it provide a way to predict the resonant length based on wire diameter.

If the meaning of "true length" is obvious, most other readers must know what it means. Would someone please be so kind as to explain to me what it means and how it's used?

Roy Lewallen, W7EL

1814. Re: Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 22:11:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125d1t27uta90a3@corp.supernews.com>
Source record: 60055

Yuri Blanarovich wrote:
>
> OK, here is the one for the experienced and theoriticians:
>
> How about antenna made of wires, submerged just below the surface of water,
> partially salinated (brakish) or sea water. Would it couple to this huge
> "water antenna" (variations of insulated vs. bare elements) or connect/tap
> to it?

I don't understand. You're asking about the coupling between a submerged antenna made of wires and a "water antenna"? What's a "water antenna"? How close together are the two antennas?

Any submerged antenna would have to be very shallow if it's to receive signals from above the water -- the attenuation of fields traveling through salt water is very high (~16 dB/foot at 1.8 MHz). If it's very deep, it might as well not be there at all.

Roy Lewallen, W7EL

1815. Re: Insulation diameter vs Impedance OR how to get 20dBi out of a short Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 22:17:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g62d529aitinit6lngd6vs4np53jcbog9u@4ax.com>
Source record: 60056

On Mon, 1 May 2006 17:24:48 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>How about antenna made of wires, submerged just below the surface of water,
>partially salinated (brakish) or sea water. Would it couple to this huge
>"water antenna" (variations of insulated vs. bare elements) or connect/tap
>to it?

Hi Yuri,

Sure.

73's
Richard Clark, KB7QHC

1816. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 23:04:26 UTC
From: Jack Hamilton <jfh@acm.org>
Message-ID: <sn4d52dkqguacv21l23qb93eplhhab5feo@4ax.com>
Source record: 59904
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Dee Flint" <deeflint01@comcast.net> wrote:

>
>"Cecil Moore" <mycall@hotmail.com> wrote in message
>news:tb77g.11986$Lm5.649@newssvr12.news.prodigy.com...
>> jawod wrote:
>>> I don't think it is as effectice on SSB. Of course, you can use the
>>> symbols that were derived from CW (like QTH) but I think morse code is a
>>> more direct communication in these circumstances because it doesn't
>>> involve voice/pronunciation differences between languages. The symbols
>>> are universal and immediately understood.
>>
>> Well then use PACTOR II with those symbols. PACTOR II will
>> get through when CW fails.
>> --
>
>Any rational evaluation of the modes available will show that there is a
>combination of circumstances that make a specific mode the one that will
>"get through". One can "prove" that their favorite mode is the one that
>will get through under certain conditions.

You are claiming that there are circumstances under which CW can be
understood but none of the newer digital modes can? Assuming, of
course, a skilled operator for CW and appropriate equipment for digital
modes. Or even software for both.

Jack Hamilton
jfh@acm.org

Though in a state of society some must have greater
luxuries and comforts than others, yet all should have
the necessities of life; and if the poor cannot exist,
in vain may the rich look for happiness or prosperity.
The legistlature is never so well employed as when they
look to the interests of those who are at a distance
from them in the ranks of society. It is their duty
to do so; religion calls for it; humanity calls for it;
and if there are hearts who are not awake to either of
those feelings, their own interests would dictate it.

Sir Lloyd Kenyon, Rex vs. Rusby, 1800

1817. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 23:16:13 UTC
From: jawod <jawod@fuse.net>
Message-ID: <e191c$445696db$453d9423$1018@FUSE.NET>
Source record: 60057
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 30 Apr 2006 19:12:23 -0700, "an old friend" <kb9rqz@yahoo.com>
> wrote:
>
>
>>Fred wrote:
>>
>>>On 30 Apr 2006 14:54:47 -0700, "an old friend" <kb9rqz@yahoo.com>
>>
>>?
>>
>>>>I have a valid license and radio equipment what would I need a waver
>>>>for?
>>>
>>>Hmmm, you tell us.
>>
>>why?
>>
>>you are making the charge you suport
>>
>>>You certainly don't seem too bright. I am merely
>>>making an observation of a known quantity. You act like a retard so
>>>therefore I assume that you are a retard. Die of HIV, loser.
>>
>>you just engage in libel and don't post anything on radio I do but you
>>don't
>
>
> Is it libel or an observation made of your behavior? If you don't want
> to be thought of as a retard, then learn how to spell and interact
> with other human beings. Things might change, but for now everyone has
> a negative perception of you and I am sure we all want you to die from
> HIV. I am still waiting for a radio post by you.
Fred, let it go, man

Do YOU have anything related to ham radio to post?

1818. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 23:20:09 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146525609.009394.272250@y43g2000cwc.googlegroups.com>
Source record: 60058
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

jawod wrote:
> Fred wrote:
> > On 30 Apr 2006 19:12:23 -0700, "an old friend" <kb9rqz@yahoo.com>
> > wrote:
> >

> > Is it libel or an observation made of your behavior? If you don't want
> > to be thought of as a retard, then learn how to spell and interact
> > with other human beings. Things might change, but for now everyone has
> > a negative perception of you and I am sure we all want you to die from
> > HIV. I am still waiting for a radio post by you.
> Fred, let it go, man
he can't

for the same reason various other can't either
>
> Do YOU have anything related to ham radio to post?

not likely he has posted that he wants to be a lurker and entertained
by the rest of us and to tell the rest of us how to posts as well

1819. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 23:29:43 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060501194523.665$XK@newsreader.com>
Source record: 60060
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

jawod <jawod@fuse.net> wrote:
> Do YOU have anything related to ham radio to post?
>
Well to be fair it can pertain to any of these groups..

rec.radio.amateur.antenna,rec.radio.amateur.equipment,
rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

1820. "Ocean as antenna"

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 23:32:20 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <cUw5g.28$br.22@fe11.lga>
Source record: 60059

Let me change the subject, in order not to interfere with original thread.

OK, let me try to elaborate based on what I know and have observed.

We know about the effect of distilled water on submerged radiator, it shrinks the dimensions due to dielectric constant. I am not going to distill the Barnegat Bay.

We know that salt water or brackish water have high conductivity and act to radio waves as reflector and we can take the advantage of this property by using suitable antenna over or next to it.

There is low penetration of such water surface by radio waves, but there should be some RF currents induced close to the surface of said water, (da poor conductor).

The question:
is there concentration of induced RF currents near the surface, and if so, can we tap them by furnishing proper antenna - transducer?
It may be that the whole sandwich of water is just shunted to ground, or is there enough resistance between the ground and surface to allow enough of workable current/signal to collect.
The idea is to "gamma match" the giant "water antenna" which is the water surface, in similar fashion as it is done say with aircraft body surface and a slot (antenna).

I do not remember this mentioned in the books I have and I wonder if it is possible to harness the ocean as an antenna. Jus' wanted to make sure we do not overlook potential "antenna" at our feet.

73 Yuri, K3BU

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:125d1t27uta90a3@corp.supernews.com...
> Yuri Blanarovich wrote:
>>
>> OK, here is the one for the experienced and theoriticians:
>>
>> How about antenna made of wires, submerged just below the surface of
>> water, partially salinated (brakish) or sea water. Would it couple to
>> this huge "water antenna" (variations of insulated vs. bare elements) or
>> connect/tap to it?
>
> I don't understand. You're asking about the coupling between a submerged
> antenna made of wires and a "water antenna"? What's a "water antenna"? How
> close together are the two antennas?
>

> Any submerged antenna would have to be very shallow if it's to receive
> signals from above the water -- the attenuation of fields traveling
> through salt water is very high (~16 dB/foot at 1.8 MHz). If it's very
> deep, it might as well not be there at all.
>
> Roy Lewallen, W7EL

1821. New program - SKYTRIG

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-01 23:52:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <I8KdnSx2msqRP8vZRVny2Q@bt.com>
Source record: 60061

Program SKYTRIG - SKYWAVE TRIGONOMETRY

With an input of elevation angle, layer height and critical frequency,
the program calculates skywave path distance, groundpath distance,
spreading (dispersion) loss, field strength from a 100 watt
transmitter, and the MUF.

The program can be used for guidance on the low MUF's and the geometry
of near vertical incidence radio paths over short distance
groundpaths.

Elevation angle is NOT the angle at which an antenna radiates the
strongest signal. It is the angle of the path taken by the radio wave
between two places on the Earth's surface and is nothing to do with an
antenna.

The program notes provide some elementary information on the heights
and behaviour of the various ionospheric layers in sunlight and in
darkness. Also on factors which affect received field strength such as
operating frequency being greater than MUF.

Download in a few seconds program SKYTRIG from website below.
Filesize = 42 kilo-bytes. Run immediately. Or you can open/run it
without downloading.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

1822. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 00:08:56 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146528536.568289.29120@g10g2000cwb.googlegroups.com>
Source record: 60062

I know perfectly well how to use EZNEC to determine the relationship between the conductor diameter/length ratio and resonant frequency. EZNEC does not tell me anything about "velocity factor" as far as I know. I don't need EZNEC to tell me the resonant-frequency and conductor diameter/length ratio relationship; I have that in detail from other sources. Those sources also don't tell me anything about "velocity factor" as far as I can tell.

I don't expect those who are totally invested in and entangled by "velocity factor" to understand this. But they continue to fulfill my expectations. (Richard C. will probably even predict with some accuracy their next card to be played...)

Cheers,
Tom

1823. Re: "Ocean as antenna"

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 00:12:30 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7e8d52haqjo3tf6n94r5r6v20m3qebrifd@4ax.com>
Source record: 60063

On Mon, 1 May 2006 19:32:20 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>The question:
>is there concentration of induced RF currents near the surface,

Hi Yuri,

Certainly. More so above the surface than below. It stands to reason
as that was the best way for it to get beneath the surface by coming
in from above. Now, if you are searching for another trapped layer
for RF, you have to allow that seawater is pitifully lossy even if it
does present a huge shiny interface. Anything "trapped" in it is
consumed by it in very few feet.

An RF wave has to overcome a huge mismatch to get any power into the
sea. Over the entire HF band that SWR is a minimum 19:1. In the 160M
band the SWR is 75:1.

73's
Richard Clark, KB7QHC

1824. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 00:45:30 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <wLadnXHXH946NsvZRVn-qw@comcast.com>
Source record: 60064

I gave up on the 'missing degrees' and all variations topic about 1
month ago. Hit the KILL Button and read on!

Dean Craft wrote:

> "Dave" <W1MCE@comcast.net> wrote in message
> news:NoGdnQPKKNlK9svZnZ2dnUVZ_vudnZ2d@comcast.com...
>
>>Dean Craft wrote:
>>
>>SNIPPED
>>
>>>The above post is without doubt, the clearest, cleanest and to the point
>>>statement of any made to date in this whole silly chain of posts! It
>>>demonstrates a clear and firm grasp of antenna theory. Something that is
>>>so obviously missing from 99 percent plus of the bulk of posts on the
>>>subject!
>>>
>>>Dean -- W4IHK
>>>
>>>
>>
>>Dean, maybe we can start a discussion about the missing 1%
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>>"Something that is so obviously missing from 99 percent..."
>>
>
>
> I have all but given up on that possibility. If its not heated immature
> school yard rhetoric driven by obvious professional jealousy, then its mind
> playing games just as has appeared since my earlier post. The troll effect
> all too frequently takes over and destroys any serious chain of thought.
>
> Dean -- W4IHK
>
>

1825. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 00:49:06 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146530946.082704.96020@j33g2000cwa.googlegroups.com>
Source record: 60065

Indeed...

And--how is the resonance affected by using a tubular conductor that's open on the ends? What if the bottom end of a monopole fed against a ground plane (or the meeting ends of a doublet) is conical with perhaps a 30 degree included angle, out to the uniform diameter of the tube? Does it matter whether the upper end (outer ends) of the tube is open or has a disk shorting across it? (A wire-frame simulation suggests that a disk shorting the top has a small effect, but less than half its radius.)

But certainly as Roy says, the effect on resonance is much greater than considering the length to be one diameter longer than the end-to-end length of the conductor.

These aren't details that are likely to matter in a ham antenna installation, but they are interesting to me from a theoretical point of view.

Cheers,
Tom

1826. Re: "Ocean as antenna"

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 00:50:44 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <ZcOdnXQT8JN8McvZnZ2dnUVZ_t6dnZ2d@comcast.com>
Source record: 60066

Sorry for the top post.

can the premise be restated as follows:

"Could an insulated wire in a lossy conductive medium [AKA ocean water]
near the surface be modeled as a slot antenna in a lossy plane?"

+ + +

Yuri Blanarovich wrote:

> Let me change the subject, in order not to interfere with original thread.
>
> OK, let me try to elaborate based on what I know and have observed.
>
> We know about the effect of distilled water on submerged radiator, it
> shrinks the dimensions due to dielectric constant. I am not going to distill
> the Barnegat Bay.
>
> We know that salt water or brackish water have high conductivity and act to
> radio waves as reflector and we can take the advantage of this property by
> using suitable antenna over or next to it.
>
> There is low penetration of such water surface by radio waves, but there
> should be some RF currents induced close to the surface of said water, (da
> poor conductor).
>
> The question:
> is there concentration of induced RF currents near the surface, and if so,
> can we tap them by furnishing proper antenna - transducer?
> It may be that the whole sandwich of water is just shunted to ground, or is
> there enough resistance between the ground and surface to allow enough of
> workable current/signal to collect.
> The idea is to "gamma match" the giant "water antenna" which is the water
> surface, in similar fashion as it is done say with aircraft body surface and
> a slot (antenna).
>
> I do not remember this mentioned in the books I have and I wonder if it is
> possible to harness the ocean as an antenna. Jus' wanted to make sure we do
> not overlook potential "antenna" at our feet.
>
> 73 Yuri, K3BU
>
>
>
>

> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:125d1t27uta90a3@corp.supernews.com...
>
>>Yuri Blanarovich wrote:
>>
>>>OK, here is the one for the experienced and theoriticians:
>>>
>>>How about antenna made of wires, submerged just below the surface of
>>>water, partially salinated (brakish) or sea water. Would it couple to
>>>this huge "water antenna" (variations of insulated vs. bare elements) or
>>>connect/tap to it?
>>
>>I don't understand. You're asking about the coupling between a submerged
>>antenna made of wires and a "water antenna"? What's a "water antenna"? How
>>close together are the two antennas?
>>
>>Any submerged antenna would have to be very shallow if it's to receive
>>signals from above the water -- the attenuation of fields traveling
>>through salt water is very high (~16 dB/foot at 1.8 MHz). If it's very
>>deep, it might as well not be there at all.
>>
>>Roy Lewallen, W7EL
>
>
>

1827. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 00:55:01 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <F5y5g.10463$t_2.711@trnddc07>
Source record: 60067

Reg Edwards wrote:
> <sailtamarack@yahoo.ca> wrote in message
> news:1146453869.698696.76370@j73g2000cwa.googlegroups.com...
>
>>>From page 22.2 of the 2005 ARRL Handbook
>>
>>"CONDUCTOR SIZE"
>>
>>"The impedance of the antenna also depends on the diameter of the
>>conductor in relation to the wavelength. If the diameter of the
>>conductor is increased, the capacitance per unit length increases
>
> and
>
>>the inductance per unit length decreases. Since the radiation
>>resistance is affected relatively little, the decreased L/C ratio
>>causes the Q of the antenna to decrease so that the resonance curve
>>becomes less sharp with change in frequency. This effect is greater
>
> as
>
>>the diameter is increased, and is a property of some importance at
>
> the
>
>>very high frequencies where the wavelength is small."
>>
>>Lots of interesting graphs and charts in the ARRL Antenna Handbook
>
> as
>
>>well.
>
> ====================================
> A nice summary.
>
> But to be more precise, it is the ratio of conductor diameter over
> length which matters.
>
> Inductance and capacitance change very slowly with diameter/length.
> The changes are hardly noticeable.
>
> L = 0.2 * Length * (Ln(4 * Length / Dia) -1) microhenrys.
>

> C = 55.55 * Length / (Ln(4 * Length / Dia) -1) picofarads.

So, if Length / Dia equals e / 4 (about 2.7183), then C = infinite?

>
> Zo = Sqrt(L / C) = 60 * Ln(4 * Length / Dia) -1) ohms.
>
> Antenna Q = 2 * Pi * Freq * L / (Distributed Radiation Resistance).
>
> For a half-wave dipole the distributed radiation resistance is 146
> ohms, or twice the feedpoint resistance.
> ----
> Reg.
>
>

John

1828. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 00:58:23 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060501211403.555$Yi@newsreader.com>
Source record: 60068
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred <freddyr1928@ll.net> wrote:
> Maybe, but I am more of a reader than a writer.
>
Mee two! <g>

1829. Re: Wire diameter vs Impedance - correction

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 02:20:45 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <1mz5g.10477$t_2.2965@trnddc07>
Source record: 60069

John - KD5YI wrote:
> Reg Edwards wrote:
>
>> <sailtamarack@yahoo.ca> wrote in message
>> news:1146453869.698696.76370@j73g2000cwa.googlegroups.com...
>>
>>>> From page 22.2 of the 2005 ARRL Handbook
>>>>
>>>>
>>> "CONDUCTOR SIZE"
>>>
>>> "The impedance of the antenna also depends on the diameter of the
>>> conductor in relation to the wavelength. If the diameter of the
>>> conductor is increased, the capacitance per unit length increases
>>
>>
>> and
>>
>>> the inductance per unit length decreases. Since the radiation
>>> resistance is affected relatively little, the decreased L/C ratio
>>> causes the Q of the antenna to decrease so that the resonance curve
>>> becomes less sharp with change in frequency. This effect is greater
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>>> Lots of interesting graphs and charts in the ARRL Antenna Handbook
>>
>>
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>>
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>>
>>
>> ====================================
>> A nice summary.
>>

>> But to be more precise, it is the ratio of conductor diameter over
>> length which matters.
>>
>> Inductance and capacitance change very slowly with diameter/length.
>> The changes are hardly noticeable.
>>
>> L = 0.2 * Length * (Ln(4 * Length / Dia) -1) microhenrys.
>>
>> C = 55.55 * Length / (Ln(4 * Length / Dia) -1) picofarads.

So, if Length / Dia equals e / 4 (about .67957), then C = infinite?

>>
>> Zo = Sqrt(L / C) = 60 * Ln(4 * Length / Dia) -1) ohms.
>>
>> Antenna Q = 2 * Pi * Freq * L / (Distributed Radiation Resistance).
>>
>> For a half-wave dipole the distributed radiation resistance is 146
>> ohms, or twice the feedpoint resistance.
>> ----
>> Reg.
>>

John

1830. Re: "Ocean as antenna"

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 02:26:04 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <5rz5g.80$N11.26@fe08.lga>
Source record: 60070

"Dave" <W1MCE@comcast.net> wrote > Sorry for the top post.
>
> can the premise be restated as follows:
>
> "Could an insulated wire in a lossy conductive medium [AKA ocean water]
> near the surface be modeled as a slot antenna in a lossy plane?"
>
> + + +

and...
if there is such an effect what is the best way to "catch the RF waves"
grazing the shining ocean surface. More like - can it work besides just
being modeled?

I have been using "dog loop" antenna, originally RF dog fence around 3/4
acre lot, which is basically wire loop burried about 1 inch below the
surface. It has about 600 ohms and works like a goofy Beverage, low noise
pickup and still delivering reasonable signal on 80/160. That's why this
bugs me, like using floating antenna?

Just wondering if there is any potential in this or if anything was written
up in the antenna books pro or con.

Yuri, K3BU/mm

>
> Yuri Blanarovich wrote:
>
>> Let me change the subject, in order not to interfere with original
>> thread.
>>
>> OK, let me try to elaborate based on what I know and have observed.
>>
>> We know about the effect of distilled water on submerged radiator, it
>> shrinks the dimensions due to dielectric constant. I am not going to
>> distill the Barnegat Bay.
>>
>> We know that salt water or brackish water have high conductivity and act
>> to radio waves as reflector and we can take the advantage of this
>> property by using suitable antenna over or next to it.
>>
>> There is low penetration of such water surface by radio waves, but there
>> should be some RF currents induced close to the surface of said water,
>> (da poor conductor).
>>
>> The question:

>> is there concentration of induced RF currents near the surface, and if
>> so, can we tap them by furnishing proper antenna - transducer?
>> It may be that the whole sandwich of water is just shunted to ground, or
>> is there enough resistance between the ground and surface to allow enough
>> of workable current/signal to collect.
>> The idea is to "gamma match" the giant "water antenna" which is the water
>> surface, in similar fashion as it is done say with aircraft body surface
>> and a slot (antenna).
>>
>> I do not remember this mentioned in the books I have and I wonder if it
>> is possible to harness the ocean as an antenna. Jus' wanted to make sure
>> we do not overlook potential "antenna" at our feet.
>>
>> 73 Yuri, K3BU
>>
>>
>>
>>
>> "Roy Lewallen" <w7el@eznec.com> wrote in message
>> news:125d1t27uta90a3@corp.supernews.com...
>>
>>>Yuri Blanarovich wrote:
>>>
>>>>OK, here is the one for the experienced and theoriticians:
>>>>
>>>>How about antenna made of wires, submerged just below the surface of
>>>>water, partially salinated (brakish) or sea water. Would it couple to
>>>>this huge "water antenna" (variations of insulated vs. bare elements) or
>>>>connect/tap to it?
>>>
>>>I don't understand. You're asking about the coupling between a submerged
>>>antenna made of wires and a "water antenna"? What's a "water antenna"?
>>>How close together are the two antennas?
>>>
>>>Any submerged antenna would have to be very shallow if it's to receive
>>>signals from above the water -- the attenuation of fields traveling
>>>through salt water is very high (~16 dB/foot at 1.8 MHz). If it's very
>>>deep, it might as well not be there at all.
>>>
>>>Roy Lewallen, W7EL
>>
>>
>>
>

1831. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 02:45:17 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <IZ6dnX0UV9BfWsvZRVn-hg@adelphia.com>
Source record: 60071

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv
http://media.putfile.com/La-Gran-Marcha
The Mexican Solution:
http://www.centerforsecuritypolicy.org/index.jsp?section=papers&code=06-D_18

-
"Dave" <W1MCE@comcast.net> wrote in message news:osmdncZfd5jrws7ZnZ2dneKdnZydnZ2d@comcast.com...
> stananger wrote:
>
>> May 1st 2006, Civil War Begins
>>
>> On May 1st 2006 The "Great American Boycott" also known as the "Day without
>> immigrants" is scheduled to occur. Participant's stated goals are a general
>> strike, No Work, No School, No Sales, and No Buying. These people want to
>> shut down individual cities, all across the nation, thereby impacting the
>> country as a whole.
>
> SNIPPED
>>
>> ter�ror�ism -"The unlawful use or threatened use of force or violence by a
>> person or an organized group against people or property with the intention
>> of intimidating or coercing societies or governments, often for ideological
>> or political reasons." - American Heritage® Dictionary of the English
>> Language, Fourth Edition
>
> SNIPPED
>
> It is not terrorism per your quoted definition: "ter�ror�ism -"The UNLAWFUL [emphasis added] use or threatened use of force or
> violence ... "
>
> I don't see any UNLAWFUL activity here. If you want a day off you take a day off. If ten people want a day off, they take a day
> off. If 100 people want a day off, they take a day off. ...

Is it unlawful for citizens from another country to protest in our streets, and attempt to manipulate our economy? I don't know, but it should be.

> The opening words of the USA Constitution are extremely important. "We the PEOPLE ..."
Note: it does not say Citizens.

I do think it implies citizenship.

>
> The First Amendment to the USA Constitution states:
> "Amendment I: Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or
> abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government
> for a redress of grievances."

The peoples government, implies citizenship.

>
> The protest is fully compliant with " freedom of speech", "peaceably to assemble' and to "redress of grievances"
>
> The Constitutional Rights you demand for yourself MUST be Rights for those with whom you disagree.
>

Does this apply to laws we demand for ourselves?

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv
http://media.putfile.com/La-Gran-Marcha
The Mexican Solution:
http://www.centerforsecuritypolicy.org/index.jsp?section=papers&code=06-D_18

-

1832. Re: Wire diameter vs Impedance - correction

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 02:47:43 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <k9edne_cisbCj8rZnZ2dnUVZ8qudnZ2d@bt.com>
Source record: 60076

> So, if Length / Dia equals e / 4 (about .67957), then C = infinite?
>
==========
C even goes negative for smaller values of Length/Dia.

I'll let you into a secret - the formulae are approximate and don't
apply when antenna length is less than about 5 times its diameter.

When was the last time you saw an antenna wire only 5 times longer
than its diameter?

1833. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 03:59:20 UTC
From: richardharrison@webtv.net
Message-ID: <20715-4456D918-374@storefull-3255.bay.webtv.net>
Source record: 60072

Richard Fry wrote:
"Such networks don`t add or subtract electrical degrees, however. They only reduce/cancel the natural reactance of the physical radiator in use."

True if the only mismatch is reactance. A too-long antenna can be electrically shortened for matching purposes by tuning it to resonance with the proper series capacitance. A too-short antenna can be electrically lengthened for matching purposes by tuning it to resonance with the proper series inductance.

Reactance varies quickly near the resonant length. Radiation resistance varies more slowly tending to increase at a steady rate as the antenna is lengthened.

What radiates is current in a length of antenna. What gets current into an antenna is a conjugate match. Reactance is zeroed out, and source and load resistances are matched. That`s what`s needed for maximum power transfer between generator and antenna.

Analysis may have been more abundant than needed for practical purposes.

The velocity of current through a coil has been disputed. Some said it was almost instantaneous. That was new to me. The nature of inductance is to produce counter emf which by Lenz`s law opposes current into an inductance and temporarily delays current changes in an inductance. Only in a pure resistance is there instantaneous correlation between voltage and current.

It is believed that the speed of light "c" is a speed limit on electromagnetic waves. An action in one place must have a delayed response elsewhere depending on distance.

I can imagine a wave launched at one of an inductor sweeping across its length and ignoring the round and round path of the wire, but I don`t know of any of the old authors in my collection who say that such a short-cut happens. Conductors are the source of free electrons which permit current flow and my experience is that electricity goes where it is wired.

Best regards, Richard Harrison, KB5WZI

1834. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 07:31:41 UTC
From: electro <electromagnetic377@yahoo.com>
Message-ID: <1146555101.313432.194390@j73g2000cwa.googlegroups.com>
Source record: 60073

hmmm..thanks

all i though from the first rule that i can transmit at 1W continously
for all applicable frequencies...you cleared that nicely....thanks

1835. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 07:33:55 UTC
From: electro <electromagnetic377@yahoo.com>
Message-ID: <1146555235.386176.196570@g10g2000cwb.googlegroups.com>
Source record: 60074

thanks!

1836. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 07:38:56 UTC
From: electro <electromagnetic377@yahoo.com>
Message-ID: <1146555536.486480.238920@i39g2000cwa.googlegroups.com>
Source record: 60075

the 6dB BW is 500khz sir..

1837. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 08:08:38 UTC
From: electro <electromagnetic377@yahoo.com>
Message-ID: <1146557318.948157.13820@g10g2000cwb.googlegroups.com>
Source record: 60077

in other words, when i have a transmit modulation bandwith of 500kbps
my peak power level must be 8 dBm...right? what if i use 6khz or 5khz?
thanks

1838. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 08:09:53 UTC
From: electro <electromagnetic377@yahoo.com>
Message-ID: <1146557393.583471.312740@u72g2000cwu.googlegroups.com>
Source record: 60078

in other words, when i have a transmit modulation bandwith of 500kbps
my peak power level must be 8 dBm...right? what if i use 6khz or
5khz?does proportionality hold here or just say in any bandwith not
greater than 500khz, the peak power level should not always exceed
8dBm?..

thanks

1839. Re: "Ocean as antenna"

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 09:55:39 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125eb4vq5mbb030@corp.supernews.com>
Source record: 60079

Yuri Blanarovich wrote:
> "Dave" <W1MCE@comcast.net> wrote > Sorry for the top post.
>> can the premise be restated as follows:
>>
>> "Could an insulated wire in a lossy conductive medium [AKA ocean water]
>> near the surface be modeled as a slot antenna in a lossy plane?"

No. To my knowledge, a slot antenna requires a thin plane, which an ocean doesn't resemble. I imagine you could make one in a solid like a chunk of metal, but believe that the hole depth would have to be a substantial fraction of a wavelength.

>>
>> + + +
>
> and...
> if there is such an effect what is the best way to "catch the RF waves"
> grazing the shining ocean surface. More like - can it work besides just
> being modeled?

Not sure what effect you mean. But NEC-4 models interactions at, above, and below a medium like water with reasonable accuracy.

> I have been using "dog loop" antenna, originally RF dog fence around 3/4
> acre lot, which is basically wire loop burried about 1 inch below the
> surface. It has about 600 ohms and works like a goofy Beverage, low noise
> pickup and still delivering reasonable signal on 80/160. That's why this
> bugs me, like using floating antenna?

I think you'll find that a buried antenna will work more and more poorly as the ground conductivity gets better and better. As an extreme, how well do you think it would work if buried in an Earth-sized chunk of metal?

> Just wondering if there is any potential in this or if anything was written
> up in the antenna books pro or con.

I think you're on your own. The path is clear for you to be the first to make great discoveries! Just be sure to take a little time off along the way to do make those coil measurements.

Roy Lewallen, W7EL

1840. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 10:23:25 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <IfOdnXJDt8CErsrZnZ2dnUVZ_vqdnZ2d@comcast.com>
Source record: 60080

Harbin,

When the USA Constitution was written there was NO government! There was a group of independent states. No government higher than state government in existence. All state governments were equal.

The USA Constitution begins: "We the People..." not "We the citizens..."

Rights, ALL RIGHTS belong to the people. If you studied philosophy, you would conclude that rights are rooted in the dignity of the person, not derived from government. Government responsibilities and authority are delegated from the people to the government for the maximum common good for the maximum number of people.

1841. help with rotor brands

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 10:53:57 UTC
From: amdx <amdx@knology.net>
Message-ID: <25d5f$44573a3c$45011502$10993@KNOLOGY.NET>
Source record: 60081

Hi All,
I'm searching for a rotor to use with a Flag antenna (as in Flag/Pennant).
At present I'm using an Alliance U110 tv antenna rotor.
I'm rebuilding my Flag and it will a bit heavier and has lots of leverage,
15ft each side of the mast. The tv rotor seems to have been fine in the past
but I need a control unit that is SILENT. The Alliance control unit does
the Clunk, Clunk, Clunk as the mast rotates.
I don't know any brands or specifications so all info is appreciated.
Thanks
Mike

PS. Is there a group or reflector that might
be a better resource for this question?

1842. Re: "Ocean as antenna"

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 12:26:28 UTC
From: gwatts <gwatts@frontiernet.net>
Message-ID: <01l5g.7626$kg.789@news02.roc.ny>
Source record: 60082

Yuri Blanarovich wrote:
...
> and...
> if there is such an effect what is the best way to "catch the RF waves"
> grazing the shining ocean surface. More like - can it work besides just
> being modeled?

From
http://www.mso.anu.edu.au/cas/presents/don.html

I quote
"Joe Pawsey took me up to Dover Heights that first day to the cliff-top interferometer. It was a very cunning device. As the sun rose above the ocean there was a reflected ray off the ocean, received by the antenna, and then the direct ray; this formed an interferometer - like a Lloyds mirror type thing - this was the array that found that the Crab Nebula was a radio source, and also did much of the early work on Cygnus"

1843. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 12:32:01 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <6eCdnYZIm9BIzMrZnZ2dnUVZ8qudnZ2d@bt.com>
Source record: 60083

Those sources also don't tell me anything about
> "velocity factor" as far as I can tell.
>
> I don't expect those who are totally invested in and entangled by
> "velocity factor" to understand this. But they continue to fulfill
my
> expectations. (Richard C. will probably even predict with some
> accuracy their next card to be played...)
>
> Cheers,
> Tom
>
==========
Yes, the velocity factor doesn't change with Length/Diameter. But it
is sometimes convenient to discuss the effect as such.

Actually everything happens at and near the ends of the wire. The
short length of wire to be pruned to bring about a state of resonance
is the same regardless of the number of half-waves in the anenna.

It is sometimes referred to as the "End Effect".

Think in terms of the directions of the electric lines of force at the
wire ends. They are not all radial lines of force. Some of them
extend outwards in the direction of the wire. In the same way as
magnetic lines of force appear when a bar magnet is sprinkled with
iron filings.

This, at the ends, and only at the ends, has the effect of increasing
capacitance to the rest of the Universe. The wire behaves as if its
longer than it actually is. Hence pruning is necessary.

When several half-waves are connected in series it is not necessary to
prune each of the half-waves. The electric lines of force are all in
radial directions at their junctions.

The "end-effect" occurs with any length of antenna. There are only two
ends. Obviously, as the diameter/length ratio increases so does the
effect. The flat ends of the antenna support a greater number of
lines of force in line with the antenna.

The effect slightly reduces efficiency. When the antenna is pruned to
bring it into resonance it is accompanied by a reduction in radiation
resistance. This is most noticeable at UHF and above where very fat
cylindrical antennas are used. Sometimes elipsoids are used for high
power transmitting antennas.

I trust my description/explanation has not further confused the issue.

Reg.

1844. Re: Wire diameter vs Impedance - correction

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 13:00:42 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <_JI5g.8915$nV4.6491@trnddc04>
Source record: 60084

Reg Edwards wrote:
>>So, if Length / Dia equals e / 4 (about .67957), then C = infinite?
>>
>
> ==========
> C even goes negative for smaller values of Length/Dia.
>
> I'll let you into a secret - the formulae are approximate and don't
> apply when antenna length is less than about 5 times its diameter.
>
> When was the last time you saw an antenna wire only 5 times longer
> than its diameter?
>
>

You should supply your "secrets" along with your formulae.

1845. Re: Wire diameter vs Impedance - correction

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 13:31:25 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <h8udnVYX6rYlwsrZRVny2w@bt.com>
Source record: 60085

> You should supply your "secrets" along with your formulae.
==========

At my time of life I don't have time to write a book!

You'll just have to read between the lines. ;o)

Reg.

1846. Gain of 2.4GHz WiFi vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 13:35:50 UTC
From: "pdrunen@aol.com" <pdrunen@aol.com>
Message-ID: <1146576950.559148.53790@j33g2000cwa.googlegroups.com>
Source record: 60086

Hi Group,

D-link has a vertical antenna for WiFi applications which is about a foot long and operates at 2.4 GHz with a stated 7dbi gain.

Since the antenna is a vertical, I thought that the best low-angle radiation is 5/8 wave for verticals, anything longer would put the lobes higher and would result in a lower low angle gain.

If this is the case then the antenna should only be about 3.5 inches long. ?

I am going to check, but I bet the true antenna is only about this lenght and the rest of the lenght is the plastic, so the appeal is bigger is better.

Any thoughts on this?

1847. Re: Gain of 2.4GHz WiFi vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 13:39:17 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <Qd2dnU6pXoqf_MrZnZ2dnUVZ_vWdnZ2d@comcast.com>
Source record: 60087

pdrunen@aol.com wrote:

> Hi Group,
>
> D-link has a vertical antenna for WiFi applications which is about a
> foot long and operates at 2.4 GHz with a stated 7dbi gain.
>
> Since the antenna is a vertical, I thought that the best low-angle
> radiation is 5/8 wave for verticals, anything longer would put the
> lobes higher and would result in a lower low angle gain.
>
> If this is the case then the antenna should only be about 3.5 inches
> long. ?
>
> I am going to check, but I bet the true antenna is only about this
> lenght and the rest of the lenght is the plastic, so the appeal is
> bigger is better.
>
> Any thoughts on this?
>

Collinear??

1848. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 13:52:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <QuJ5g.71818$H71.21609@newssvr13.news.prodigy.com>
Source record: 60088

Richard Fry wrote:
> "Cecil Moore"
>> A self-resonant coil is obviously 90 degrees long.

> A coil is not the electrical equivalent of a linear, physical,
> ~90-degree, self-resonant radiator. How well do you expect your
> self-resonant coil to radiate?

Not very well. Nobody is saying that a coil is a good
radiator. It probably radiates about as much RF as a
piece of wire of the same axial length as the coil.

Nothing about the discussion of phase
shift through a coil has had anything to do with radiation.
In fact, I have ignored radiation from the coil in all
of my calculations since I consider it to be negligible.

We have a phase shift in a transmission line with negligible
radiation. The same is true of a loading coil.

> When you add a stinger to a coil, it is the stinger that radiates the
> great majority of the applied power.

Absolutely no question about that. The round and round
design of a coil makes it more akin to a piece of
transmission line than it does to a radiator. But like
a transmission line stub, it contributes a phase shift
to the system.

The stub on a properly designed J-Pole doesn't radiate
much either. But one can certainly calculate the phase
shift from the feedpoint to bottom of the radiating element.

Again, the phase shift in the coil has virtually nothing
to do with how much the coil radiates. Looking at just
one turn on the coil, the current on each side of the
turn is approximately equal magnitude and flowing in
opposite directions (just as in a transmission line).
So virtually all the radiation is canceled by the
opposite near fields (just as in a transmission line).
--
73, Cecil http://www.qsl.net/w5dxp

1849. Re: Wire diameter vs Impedance - correction

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 14:00:47 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <jCJ5g.5$Th.2@trnddc03>
Source record: 60089

Reg Edwards wrote:
>>You should supply your "secrets" along with your formulae.
>
> ====================================
>
> At my time of life I don't have time to write a book!
>
> You'll just have to read between the lines. ;o)
> ----
> Reg.
>
>

Fine. From now on, I will assume you have no time to explain your "secrets"
when you post so I will ignore your formulae. This approach is much better
than being misled if I do not read between your lines properly.

1850. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 14:31:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <93K5g.71838$H71.57495@newssvr13.news.prodigy.com>
Source record: 60090

K7ITM wrote:
> Those sources also don't tell me anything about
> "velocity factor" as far as I can tell.

What RF engineers call "velocity factor" is related to the phase constant in the complex propagation constant embedded in any transmission line equation in any decent textbook. Do your sources tell you anything about the complex propagation constant?
--
73, Cecil http://www.qsl.net/w5dxp

1851. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 14:45:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <tgK5g.71843$H71.40844@newssvr13.news.prodigy.com>
Source record: 60091

Richard Harrison wrote:
> I can imagine a wave launched at one of an inductor sweeping across its
> length and ignoring the round and round path of the wire, but I don`t
> know of any of the old authors in my collection who say that such a
> short-cut happens. Conductors are the source of free electrons which
> permit current flow and my experience is that electricity goes where it
> is wired.

Consider a tank circuit link coupled to the outside world.
There are probably negligible free electrons flowing from
primary to secondary. Yet efficient energy transfer occurs
when the coils are tightly coupled.

In a loading coil, each turn is tightly coupled to the
adjacent turn causing part of the current to be the result
of the fields rather than wire path. That's why the VF of
the loading coil is roughly double what it would be for
"round and round the coil" calculations. The VF for a 75m
bugcatcher coil appears to be in the ballpark of 0.04 which
is a far cry from the straight across 1.0 or even 0.5
--
73, Cecil http://www.qsl.net/w5dxp

1852. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 14:55:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <EpK5g.71846$H71.5473@newssvr13.news.prodigy.com>
Source record: 60092

Reg Edwards wrote:
> The "end-effect" occurs with any length of antenna. There are only two
> ends.

Is the lack of an "end-effect" why a full-wave loop has
to be made longer than 2*468/f?
--
73, Cecil http://www.qsl.net/w5dxp

1853. Re: New program - SKYTRIG

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 14:58:28 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <osK5g.2734$Vn.642@newsread4.news.pas.earthlink.net>
Source record: 60093

Hi Reg,

First, congratulations on your creativity with your programs,
and thank you for making them available to the community.

But they would come across a little better without any global,
borderline pompous (and incorrect) definitional pronouncements...

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:I8KdnSx2msqRP8vZRVny2Q@bt.com...
> Program SKYTRIG - SKYWAVE TRIGONOMETRY
>
> (snip)
>
> Elevation angle is NOT the angle at which an antenna radiates the
> strongest signal. It is the angle of the path taken by the radio wave
> between two places on the Earth's surface and is nothing to do with an
> antenna.
>
The working definition of "elevation angle," of course, depends on the
context. Your definition is appropriate in the context of your program,
and for propagation ray tracing.

But the moonbouncer would generally mean the elevation angle of his
array (or the moon), the static array designer might well mean the angle
of his maximum lobe, the aircraft spotter would mean the angle of the
target, the artilleryman would mean his muzzle angle, and so forth,
and so on.

73, Ed

1854. hf antennas near powerlines

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 15:49:19 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146584959.589388.308880@i39g2000cwa.googlegroups.com>
Source record: 60094

anythoughts on the ffect of putting long wire anttens near powerlins ?

thanks you changing poles (and leaing the an old pole I have access to
a pole for a posible HF antenna that will terminate near thw power line
(and likely run away from them at a roughly 90 degree angle, groow
effect like the power line falling on the attenna are adressed by the
phycal layout but what of the rf efect (a seperate from the end of the
attnea on the old pole to the restrung wire new pole is a bout 4-6 feet
(the anttena is still in the planing stages)

1855. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 15:57:26 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v1ve52tjuug3os5la3khu53rtlh4hn5jvc@4ax.com>
Source record: 60095

On Tue, 02 May 2006 06:23:25 -0400, Dave <W1MCE@comcast.net> wrote:

>Harbin,
>
>When the USA Constitution was written there was NO government! There was
> a group of independent states. No government higher than state
>government in existence. All state governments were equal.

Hi Dave,

You are quite wrong. Previous to the ratification of the U.S.
Constitution, we lived under the Articles of Confederation which was a
Republican form of government complete with assembly and President.

The Constitutional Congress was formed to look at the Articles, not
create a new government.
>
>The USA Constitution begins: "We the People..." not "We the citizens..."

The Constitution speaks of citizens of states, but it nowhere provides
for the qualifications of becoming a citizen. However, there is the
3/5ths rule and the untaxed Indians who are implicitly not citizens
(saying nothing of women).

>Rights, ALL RIGHTS belong to the people.

There are many in the current administration that would dispute this.

73's
Richard Clark, KB7QHC

1856. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 16:14:37 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <gLadnfyhea2qG8rZRVnyjQ@bt.com>
Source record: 60097

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:EpK5g.71846$H71.5473@newssvr13.news.prodigy.com...
> Reg Edwards wrote:
> > The "end-effect" occurs with any length of antenna. There are only
two
> > ends.
>
> Is the lack of an "end-effect" why a full-wave loop has
> to be made longer than 2*468/f?
> --
> 73, Cecil http://www.qsl.net/w5dxp
==========

Cec, I do wish you would stick to metric dimensions instead of feet
and inches. It would make life much easier.

You've read about it in a book. Have you ever measured it? Has
anybody else ever measured it?

Although a continuous loop has no ends it does have a small opposing
mutual impedace (both L and C) between one side of the loop and the
other. This affects the velocity factor. The mutual impedance does
not exist when the wire is all in one straight line.

What explanation do YOU have to offer?

Reg.

1857. Re: Gain of 2.4GHz WiFi vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 16:18:07 UTC
From: fmmck@aol.com
Message-ID: <fmmck-0205061218070001@ac81534c.ipt.aol.com>
Source record: 60096

In article <1146576950.559148.53790@j33g2000cwa.googlegroups.com>,
"pdrunen@aol.com" <pdrunen@aol.com> wrote:

> Since the antenna is a vertical, I thought that the best low-angle
> radiation is 5/8 wave for verticals, anything longer would put the
> lobes higher and would result in a lower low angle gain.
>
> If this is the case then the antenna should only be about 3.5 inches
> long. ?

PD-

The beauty of the 5/8 (0.625) wavelength groundplane antenna, is that its feedpoint impedance has a resistive component of 50 Ohms, and can easily be matched with a small inductor. Some such antennas have been constructed by winding the coil using the base of the antenna rod. It is my recollection from an antennas class 35 years ago, that the best signal towards the horizon comes from a 0.58 wavelength groundplane antenna, not 0.625 wavelength. I can see how 5/8 and 0.58 might be confused, and many may consider the difference trivial.

As far as the D-Link antenna, it is most likely a co-axially fed vertical dipole with additional colinear elements separated by phasing networks.

Fred

1858. Re: hf antennas near powerlines

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 16:42:21 UTC
From: "pdrahn@coinet.com" <pdrahn@coinet.com>
Message-ID: <1146588140.888402.183920@v46g2000cwv.googlegroups.com>
Source record: 60098

The RF effect is probably not much for transmitting, but receiving may pick up lots of noise. It all depends on what type of power line you are refering to. If it's a single distribution line in a residential area, it will relatively low voltage and noise. If you are looking at a high voltage feeder line with multiple 3-phase lines, then you will get lots of noise, including corona discharge, arcing when the insulators are wet and dirty.

My 160 meter dipole has one end near a line with two high tension feeder lines plus the residential feeder line. I use the antenna on all bands, and can really hear the noise reduction when on 40 meters and above and switch to an antenna quite a way from the power lines.

My power company also has a deeded right of way along the South part of my property where I cannot put anything above a certain height or build anything that might contact a falling wire. If this is your case also, you might take a look at your deed restrictions and put your poll outside the restricted area.

Good luck, Paul KD7HB

an_old_friend wrote:
> anythoughts on the ffect of putting long wire anttens near powerlins ?
>
> thanks you changing poles (and leaing the an old pole I have access to
> a pole for a posible HF antenna that will terminate near thw power line
> (and likely run away from them at a roughly 90 degree angle, groow
> effect like the power line falling on the attenna are adressed by the
> phycal layout but what of the rf efect (a seperate from the end of the
> attnea on the old pole to the restrung wire new pole is a bout 4-6 feet
> (the anttena is still in the planing stages)

1859. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 16:44:25 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <d7idnVQl0er0EcrZnZ2dnUVZ_t-dnZ2d@comcast.com>
Source record: 60099

Cecil Moore wrote:

> K7ITM wrote:
>
>> Those sources also don't tell me anything about
>> "velocity factor" as far as I can tell.
>
>
> What RF engineers call "velocity factor" is related to the phase
> constant in the complex propagation constant embedded in any
> transmission line equation in any decent textbook. Do your
> sources tell you anything about the complex propagation constant?

Complex propagation constant is ? = ? +j? :

Where:

? is the attenuation in Nepers/wavelength

? is the phase shift in Radians/wavelength

Did I pass ??????????

1860. Re: Smith Chart inventor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 16:59:47 UTC
From: wood@itd.nrl.navy.mil
Message-ID: <wood-0205061300030001@jbw-mac.itd.nrl.navy.mil>
Source record: 60100

In article <CKWdnRHtQeYXVMzZRVny1w@bt.com>, "Reg Edwards"
<g4fgq,regp@ZZZbtinternet,com> wrote:

> "Jeff" wrote
> > > Smith did not invent the Smith Chart. He simplified, for HF use
> only,
> > > charts which had been in existence since the Victorian Age, which
> > > covered all transmission line frequenies down to telephone and
> power
> > > frequencies.
> > >
> >
> > That is not quite correct, what Smith did was to take to concept of
> the
> > pre-existing equations and a rectangular chart which covered a
> limited range
> > of impedances and develop them into a circular, more complex chart,
> that
> > covered a full range of impedances. See the Introduction to Smith's
> book
> > "Electronic Applications of the Smith Chart".
> >
> > Regards
> > Jeff
> ==
>
> Agreed. Your description of what Smith did is more accurate than
> mine.
> ----
> Reg.

Hello, and there appears to be faulty logic here. Any other form of chart not in Smith's format or variants thereof (e.g. a Carter Chart) cannot be a Smith Chart. The fact that Phillip Smith's and similar types of charts are all based upon the transmission line equations is irrelevant to giving due credit to their respective developers. Smith recognizes (pg xv, intro to Smith's book) that similar charts (and their respective limitations) formulated by others inspired him.

Do we say that since a couple of brothers from Dayton, Ohio leveraged then-existing aviation technologies and ideas developed by others (e.g. gliders) the Wrights shouldn't be given credit for inventing a successful human carrying, heavier-than-air, propeller-driven aircraft?

And for the flip side, while many readily identify Marconi, DeForest, J. Fleming and sometimes Tesla as radio pioneers how many can recall Edwin Armstrong? Sincerely, and 73s from N4GGO,

John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375-5337

1861. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 17:16:04 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <otM5g.689$fb2.228@newssvr27.news.prodigy.net>
Source record: 60101

Reg Edwards wrote:
> Cec, I do wish you would stick to metric dimensions instead of feet
> and inches.

Sorry, Reg, I'm with the English on that one. :-)
--
73, Cecil http://www.qsl.net/w5dxp

1862. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 17:25:11 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <leidnRyelq1qCMrZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 60102

The Articles of Confederation were a failure! No centralized government. The USA government, as we basically have it today did not exist during and after the Revolutionary War. The Constitution did not become the Law of the USA until 4 March 1789.

The Amendments are written as follows:

Prior to ratification of the Constitution, Amendments 1 through 10 use the language of 'PEOPLE' [not citizen]. [Amendments 1, 2, 4, 5, 9, and 10] [Prior to 4 March 1789]

Subsequent to ratification of the Constitution, Amendments 11 through 26, that deal with human, not political or liquor issues, use the language of 'CITIZENS'. [Amendments 11, 14, 15, 17, 19, 24, and 26]

The 14th amendment, following the US Civil War [9 July 1868], establishes citizenship definitions as follows:

"1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside." This was originally worded to assure citizenship to the emancipated slaves. It has since been judicially interpreted in a broader sense.

In the current passionate discussion of immigration rights we categorize and pre-judge, by our use of language, a group of people. Are they 'Illegal Immigrants', or, 'Undocumented Workers'? Regarding the law governing immigration, is it founded on 'per ipse 'wrong or is it founded on 'Good Order for the maximum common good'. I suspect the number of immigrants from any nation who may legally immigrate to the USA is arbitrarily chosen in the US House of Representatives. The quotas can be easily changed by act of Congress. A case can be made that QUOTA systems are basically discriminatory.

Regarding the 'oppressive' states, and there are many, the politics of 'Power' and 'Might makes Right' does not ratify the yearning of people to be FREE. Governments may and do usurp human rights, but that does make it right! The UN has an Office of Human Rights. The Pope has an Office of Human Rights. Many governments of Europe have political entities devoted to Human Rights. There are many NGOs devoted to human rights. These rights include fundamental human rights, political rights and social rights.

IMO, secure borders, in a post 9-11 USA environment, cannot be morally justified based on QUOTAS. And we have quotas for the Mexican immigrants. How are these quotas justified? [Does the USA authorize 100,000, 500,000 or 1,000,000 immigrants a year? Why is there any

particular number?]

I'm pontificating, I know it! But, I see injustice in any QUOTA system.

/S/ DD, W1MCE

Richard Clark wrote:

> On Tue, 02 May 2006 06:23:25 -0400, Dave <W1MCE@comcast.net> wrote:
>
>
>>Harbin,
>>
>>When the USA Constitution was written there was NO government! There was
>> a group of independent states. No government higher than state
>>government in existence. All state governments were equal.
>
>
> Hi Dave,
>
> You are quite wrong. Previous to the ratification of the U.S.
> Constitution, we lived under the Articles of Confederation which was a
> Republican form of government complete with assembly and President.
>
> The Constitutional Congress was formed to look at the Articles, not
> create a new government.
>
>>The USA Constitution begins: "We the People..." not "We the citizens..."
>
>
> The Constitution speaks of citizens of states, but it nowhere provides
> for the qualifications of becoming a citizen. However, there is the
> 3/5ths rule and the untaxed Indians who are implicitly not citizens
> (saying nothing of women).
>
>
>>Rights, ALL RIGHTS belong to the people.
>
>
> There are many in the current administration that would dispute this.
>
> 73's
> Richard Clark, KB7QHC

1863. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 17:31:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <wHM5g.693$fb2.558@newssvr27.news.prodigy.net>
Source record: 60103

Dave wrote:

> Complex propagation constant is ? = ? +j? :
> ? is the attenuation in Nepers/wavelength
> ? is the phase shift in Radians/wavelength
> Did I pass ??????????

If I remember correctly, SQRT(Z*Y) results in a
dimensionless quantity.
--
73, Cecil http://www.qsl.net/w5dxp

1864. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 17:59:37 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vp5f525cnqdg81eojd246nt5g2rfpmdh9v@4ax.com>
Source record: 60104

Hi Dave,

On Tue, 02 May 2006 13:25:11 -0400, Dave <W1MCE@comcast.net> wrote:

>The Articles of Confederation were a failure!
does not lead to the conclusion of
>No centralized government.
as in fact there was a central government by its very creation. Hence
there were citizens, but they were not of the United States until
ratification of the Constitution.

>In the current passionate discussion of immigration rights we categorize
>and pre-judge, by our use of language, a group of people.

Language is a necessary part of communication - nothing is context
free.

>Are they 'Illegal Immigrants', or, 'Undocumented Workers'?

As to language, it matters little except to excite groups. As to
legalities, those definitions satisfy themselves and still manage to
excite groups.

>Regarding the law
>governing immigration, is it founded on 'per ipse 'wrong or is it
>founded on 'Good Order for the maximum common good'. I suspect the
>number of immigrants from any nation who may legally immigrate to the
>USA is arbitrarily chosen in the US House of Representatives. The quotas
>can be easily changed by act of Congress. A case can be made that QUOTA
>systems are basically discriminatory.

This is redundant. A quota must be discriminatory. No case is made
where it is obviously offered freely.

>Regarding the 'oppressive' states, and there are many, the politics of
>'Power' and 'Might makes Right' does not ratify the yearning of people
>to be FREE.

Your passion seems to be getting ahead of your logic.

>Governments may and do usurp human rights, but that does
>make it right!

Passion is getting brighter, but the logic is failing.

>The UN has an Office of Human Rights. The Pope has an
>Office of Human Rights. Many governments of Europe have political
>entities devoted to Human Rights. There are many NGOs devoted to human

>rights. These rights include fundamental human rights, political rights
>and social rights.

Yes, and I work with one, and support many. However, few of these
agencies that you offer have the power to open borders.

>IMO, secure borders, in a post 9-11 USA environment, cannot be morally
>justified based on QUOTAS.

We have always had quotas with and without the 9-11 context. It seems
odd to separate them from the morality equation.

>And we have quotas for the Mexican
>immigrants. How are these quotas justified? [Does the USA authorize
>100,000, 500,000 or 1,000,000 immigrants a year? Why is there any
>particular number?]

Justified? The courts answer to that as it is their business. OK, I
can tell what you mean by "justified" but you are freely mixing
morality, laws, government, and history and the meaning of "justified"
goes through a great amount of flexibility to support any one
argument.

>I'm pontificating, I know it! But, I see injustice in any QUOTA system.

Any quota system? The apportionment of members of congress by
population is just one system.

There's an obvious quota in the ability of border guards to simply
look at every visitor coming across the border. A line waiting to be
seen is its own quota. If you did less than simply look, then yes, we
would be quota free. Would it be unreasonable to have a guest book at
the border for everyone to sign, or would this be a quota too?

No, pontificating is not a solution and seeing injustice is not really
being a witness.

73's
Richard Clark, KB7QHC

1865. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 18:54:14 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146596054.095856.75500@g10g2000cwb.googlegroups.com>
Source record: 60105

Thanks, Reg. It certainly didn't 'further confuse' the issue for me, though I can't speak for others.

Never one to let things rest without doing a bit of thinking about them, I had a look at some info I have from R.W.P. King, and also did a bit of NEC2 simulating. What I find is that for half-wave and 3/2-wave dipoles, the shortening effect is nearly the same length (constant frequency and wire diameter), but for full wave and 2-wave long antennas, the shortening is greater. King and NEC2 agree pretty closely for the half and 3/2 case but differ noticably for the full and 2-wave case, though again, the shortening is (somewhat more roughly) the same for a given model when comparing the full and 2 wave cases.

I suppose the difference between the models, and the difference between the resonant (odd-half-waves) versus anti-resonant (even-half-waves) cases, can be accounted for by the terminal conditions. After all, the electric field is quite high at the center feedpoint of the even-half-waves antennas, so details of the terminal conditions (wire diameter and spacing) are important there, much more so than with the relatively low electric fields in that region for the odd-half-waves antennas. The terminal conditions act roughly like a capacitor across the feedpoint, and that has little effect with the low feedpoint impedance of the odd-half-waves antennas, but a much larger effect with the higher feedpoint impedance of the even-half-waves antennas.

I also used NEC2 to simulate the effects of a small top-hat: it was 4 radial wires at the top of a vertical, 0.001 wavelengths long. The vertical diameter was .000001 wavelengths (as were the radials forming the top hat). I found that adding that top had reduced the length for resonance by exactly the same length in each case, for 1/4, 2/4, 3/4 and 4/4 wave tall antennas, probably within the accuracy of the computing engine. (The differences among the shortenings was less than 0.01% of a wavelength; the shortening effect of the top hat was 0.4%.)

I suppose there are some higher-order effects going on too, but this is close enough to satisfy my curiosity--for now. Thanks to Pierre for posting an interesting question that has nothing to do with "velocity factor."

Cheers,
Tom

1866. Re: Gain of 2.4GHz WiFi vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 19:17:29 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125fc2halekg7d4@corp.supernews.com>
Source record: 60106

Fred McKenzie wrote:
>
> The beauty of the 5/8 (0.625) wavelength groundplane antenna, is that its
> feedpoint impedance has a resistive component of 50 Ohms, and can easily
> be matched with a small inductor. Some such antennas have been
> constructed by winding the coil using the base of the antenna rod. It is
> my recollection from an antennas class 35 years ago, that the best signal
> towards the horizon comes from a 0.58 wavelength groundplane antenna, not
> 0.625 wavelength. I can see how 5/8 and 0.58 might be confused, and many
> may consider the difference trivial.

Maximum gain at the horizon actually occurs at around 0.625 wavelength. At lengths between 0.5 and 0.625, a higher angle lobe appears, but it doesn't divert a significant amount of the total power away from the main lobe until the antenna gets longer than 0.625 wavelength.

However, those gain figures are for a vertical antenna mounted on a perfect, infinite, ground plane. Actual performance of 0.5 or 0.625 wavelength antennas compared to quarter wave ones varies a great deal in most typical situations. And any kind of WLAN device I've seen deviates in major ways from the ideal case. Gain of a longer antenna is as likely to be due to placebo effect as to physics.

One big advantage of a 0.5 wavelength antenna is its high feedpoint impedance. This makes it much more independent of the other half of the antenna -- what amateurs like to call "ground", but is often the top of a car, a person holding an HT, a router box, etc. The advantage isn't shared by the 0.625 wavelength radiator.

Roy Lewallen, W7EL

1867. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 20:21:49 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <125ffq9kpvg3kd6@corp.supernews.com>
Source record: 60107

Dear Group:
The use of one number is crude and suitable only if one has imbibed enough grain alcohol or one does not care about Lord K's admonition or both.

The preferred scheme is to model the expected virtual heights at each ionospheric reflection (note that the apparent TOA (angles) involved are not likely to be the same at each of these reflections) and then to use the angles involved to note the expected incidence angle of the intermediate "ground" reflection. The coordinates of the expected "ground" reflection areas are calculated and note is taken as to whether those areas are predominately salt-water, ice, or neither. A heuristic algorithm is applied that depends on type of "ground" and that weakly depends on the expected incidence angle. The result is a statistically significant reflection loss. [Some iteration is needed, which computers are very good at doing.]

It is important to note that the apparent TOA of the major mode between two points is unlikely to be the same at both ends of the path because the virtual height is unlikely to be the same near both ends.

For HF paths greater than something like 12 or 14 Mm predictions become more complex. In all cases of multiple hops (real DX), the TOA at which the gain of the antennas is effective varies between about 12 degrees and 2 degrees.

If one wishes a simple predictor, one could find it in a paper published in the UK in the transactions on a conference on HF propagation in the 80s (as I recall) by a BBC engineer (IEE was the publisher). The entire computer code is given in the paper. It uses a simple heuristic model that was found by the BBC to give satisfactory results over the paths that their World Service used. Note that the BBC used paths that did not include much of the polar regions.

To digress: The worst path to a DXCC entity from the Upper Midwest is over the magnetic pole to VU4. 100 watt transmitters, ice reflections, heavy absorption, and roughly 10 db more noise at the far end make the need for power and high antennas almost necessary.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:19197-4450F612-273@storefull-3257.bay.webtv.net...

<snip>
>
> It could be right for some reflections.
>
> E.A. Laport was Chief Engineer of RCA International when he wrote "Radio
> Antenna Engineering". On page 236 Fig. 3.17 shows the effect of ground
> conductivity on maximum field strength from a horizontal dipole antenna
> versus its height in vavelengths.
>
> Optimum height would be about 0,50 wavelength to most concentrate energy
> at a certain vertical angle, 30-degrees according to the RAF Signal
> Manual quoted by Laport. 30-degrees might hop 1000 kilometers.
>
> At the antenna earth reflection point, frequencies between 2 and 16 MHz
> are reduced to 95% of their prereflection field strengths by ordinary
> soil from a dipole at 1/2-wavelength height. A reduction to 70.7% of
> prereflection strength would represent a 3 dB power loss. So no harm
> done yet by the reflection from an antenna over good soil. Lower antenna
> height and poorer soil would attenuate more.
>
> The angle at which rhe signal strikes the earth in subsequent
> reflections should be the same as the first reflection from the antenna.
> Conductivity and dielectric constant at subsequent earth reflection
> points are what they are.
>
> Shortwave broadcasters use vertically stacked horizontal elements to
> concentrate the vertical beam to avoid multipath interference. They also
> prefer targets reached on the first reflection from the ionosphere..
>
> Best regards, Richard Harrison, KB5WZI
>

1868. Re: hf antennas near powerlines

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 20:53:54 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146603234.310872.194120@i40g2000cwc.googlegroups.com>
Source record: 60108

pdrahn@coinet.com wrote:
> The RF effect is probably not much for transmitting, but receiving may
> pick up lots of noise. It all depends on what type of power line you
> are refering to. If it's a single distribution line in a residential
> area, it will relatively low voltage and noise. If you are looking at a
> high voltage feeder line with multiple 3-phase lines, then you will get
> lots of noise, including corona discharge, arcing when the insulators
> are wet and dirty.
>
> My 160 meter dipole has one end near a line with two high tension
> feeder lines plus the residential feeder line. I use the antenna on all
> bands, and can really hear the noise reduction when on 40 meters and
> above and switch to an antenna quite a way from the power lines.
>
> My power company also has a deeded right of way along the South part of
> my property where I cannot put anything above a certain height or build
> anything that might contact a falling wire. If this is your case also,
> you might take a look at your deed restrictions and put your poll
> outside the restricted area.

the pole I am planing to use is one the power company has abonaded
(moving the transfromer to a new pole in exchance for not making them
remove and disose of the old pole I may use it as I like

it sounds like I will be able to use to elavte a low band antenna alone
with the other abandoned service pole at the other end of the attenn,
it ruarl resdentcail there is my transformers and the next is about 1
mile away

I was just wondering if I was do to something "iteresting" (maybe good
mayeb not puting the end of the anttena

noramly a good point about placement issues but the reason they were
moving is that the entire line was placed fbyond their powere company
right way in the first place and for some reaon the power company is
being forced to put it line where they nbelong rather than making the
homeowner just give up more land
>
> Good luck, Paul KD7HB

thank you

1869. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 22:01:19 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <BoOdnY4_wZrXSsrZRVnyvw@bt.com>
Source record: 60109

There's another interesting thing about very fat antennas.

Again considering them as transmission lines, their Zo is quite low
and so the input, or end impedance of a half-wave dipole is relatively
low.

Thus it is possible to place two half-wave dipoles in series and feed
them in the middle. (In the same way as feeding one half-wave dipole
in the middle).

What does the radiation pattern of a full-wave, exceedingly fat dipole
look like? Can the modelling programs cope? What's the feedpoint
impedance at resonance? What's the bandwidth?

What about a 4 or 5-to-1 ratio for Length / Diameter?

Reg.

1870. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 22:09:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <jJudnR0hHJKgRMrZRVnysg@bt.com>
Source record: 60110

Tom wrote -
> I also used NEC2 to simulate the effects of a small top-hat: it was
4
> radial wires at the top of a vertical, 0.001 wavelengths long. The
> vertical diameter was .000001 wavelengths (as were the radials
forming
> the top hat). I found that adding that top had reduced the length
for
> resonance by exactly the same length in each case, for 1/4, 2/4, 3/4
> and 4/4 wave tall antennas, probably within the accuracy of the
> computing engine.

==========

The "End Effect" is thereby proved.

Marvellous things are computing engines!

Reg.

1871. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 22:36:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125fnnqh54t48a7@corp.supernews.com>
Source record: 60111

"End effect" looks to me like a description of a result, not an explanation of a cause. Its "proof" consists of the observation that fatter dipoles have a shorter resonant length than thin ones. I'm afraid a real explanation of why the "end effect" occurs requires much deeper physics and math.

I don't believe that Tom's result with the top hat is a demonstration of the same phenomenon that makes resonant fat dipoles shorter than thin ones. Here's what the top hat experiment means:

Suppose you have a thin antenna of any length. Look at the current distribution on the last few degrees of the antenna. I believe you'll find that it's the same regardless of the antenna length. Then replace the wire with a top hat. Again you'll find that the current distribution on the top hat is the same regardless of the length of the antenna below it. So it shouldn't be surprising that you can substitute one for the other and get the same result regardless of the antenna length.

This proves that you can replace a part of an antenna with a capacitive hat, and that the relationship between the length of wire and size of top hat is, at least to first order, independent of the antenna length. It's not clear to me what else it proves.

Incidentally, does this have anything to do with the "true length" of an antenna? No one has stepped forward yet with an explanation.

Roy Lewallen, W7EL

Reg Edwards wrote:
> Tom wrote -
>> I also used NEC2 to simulate the effects of a small top-hat: it was
> 4
>> radial wires at the top of a vertical, 0.001 wavelengths long. The
>> vertical diameter was .000001 wavelengths (as were the radials
> forming
>> the top hat). I found that adding that top had reduced the length
> for
>> resonance by exactly the same length in each case, for 1/4, 2/4, 3/4
>> and 4/4 wave tall antennas, probably within the accuracy of the
>> computing engine.
>
> ====================================
>
> The "End Effect" is thereby proved.
>
> Marvellous things are computing engines!

> ----
> Reg.
>
>

1872. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-02 22:52:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <IoR5g.11122$Lm5.2091@newssvr12.news.prodigy.com>
Source record: 60112

Roy Lewallen wrote:
> Suppose you have a thin antenna of any length. Look at the current
> distribution on the last few degrees of the antenna. I believe you'll
> find that it's the same regardless of the antenna length.

For a 1/2WL dipole, it is also the same at the center of the
antenna and at all other points anywhere on the antenna. The
standing wave current phase cannot be used to measure phase
shift in a wire or a coil or a top hat or a stub. The phase
of standing wave current is meaningless.

If one makes the top hat large enough, one should see an
abrupt ~180 phase reversal in the standing wave current.
This happens on each side of a current minimum point.
--
73, Cecil http://www.qsl.net/w5dxp

1873. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 01:16:04 UTC
From: richardharrison@webtv.net
Message-ID: <5950-44580454-606@storefull-3257.bay.webtv.net>
Source record: 60113

Mac, N8TT wrote:
"Note that the BBC used paths that did not include much of the polar regions."

That`s an indication that they knew something about broadcasting. There must be a better way somewhere that doesn`t involve a path near a polar region.

A broadcaster must advertise his programs well in advance. He can`t find a band that`s open and tailor his emissions to it. He must fire up on schedule with the right program at the designated time and direction regardless of conditions. All is planned long ahead of time.

One of the most usless toys we had was a backscatter ionospheric sounder. It worked well but we had no immediate need for the information it provided. We were locked in our schedules for months in advance and today`s ionospheric conditions were short-term indeed.

Best regards, Richard Harrison, KB5WZI

1874. Re: Multi hopping radio waves

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 01:47:45 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <kr2g52935ejadpa2iuklckphdo31kbek93@4ax.com>
Source record: 60114

ORIGINAL MESSAGE:

On Tue, 2 May 2006 20:16:04 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>A broadcaster must advertise his programs well in advance. He can`t find
>a band that`s open and tailor his emissions to it. He must fire up on
>schedule with the right program at the designated time and direction
>regardless of conditions. All is planned long ahead of time.

********** REPLY SEPARATOR **********

A good argument for moving international broadcast to the VHF/UHF or higher regions. HF was good when there were no alternatives, but the time has come to retire it.

Bill, W6WRT

1875. Re: Wire diameter vs Impedance - correction

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 02:54:10 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <d9CdndzjHObNhsXZRVn-uQ@adelphia.com>
Source record: 60115

John - KD5YI wrote:
> Reg Edwards wrote:
>
>>> You should supply your "secrets" along with your formulae.
>>
>>
>> ====================================
>>
>> At my time of life I don't have time to write a book!
>>
>> You'll just have to read between the lines. ;o)
>> ----
>> Reg.
>>
>>
>
>
> Fine. From now on, I will assume you have no time to explain your
> "secrets" when you post so I will ignore your formulae. This approach is
> much better than being misled if I do not read between your lines properly.

Is it important that antennas that won't work have to conform to the
formulae of antennas that do? 8^)

- 73 de Mike KB3EIA -

1876. 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 02:58:00 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <Sb6dncZKp-WrgcXZnZ2dnUVZ_vOdnZ2d@adelphia.com>
Source record: 60116

Anyone here have a good web reference on making a 4:1 balun? I'm looking for the dual core design, not the single core design. Lots of those to google.

Do the single core designs really not work? I had a single core homebrew that seemed to work, but I'm a tad confused after hearing that they don't.

- 73 de Mike KB3EIA -

1877. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 03:40:39 UTC
From: Dave Heil <k8mn@earthlink.net>
Message-ID: <XCV5g.580$Ae1.242@newsread1.news.pas.earthlink.net>
Source record: 60117

Mike Coslo wrote:
> Dave Heil wrote:
>> Highland Ham wrote:
>> ========================
>>
>>> To be UV resistant the plastic should be black ,eg it contains carbon
>>> black (like soot) If ,in general, plastic material is exposed to sun
>>> light it deteriorates over time (especially when pigments are involved).
>>> Example: coloured polypropylene rope .
>>> If that material would be black ,it would have a very long life.
>>> But then the sales of this material would decline ;)), hence you only
>>> find coloured polypropylene rope ,blue ,orange ,red , yellow ,etc ,at
>>> least in the UK.
>>>
>>> Here in the north of Scotland (no sun in abundance) I use
>>> (blue)polypropylene guys on a 13m (40ft)mast ,which have to be
>>> replaced every 7 -8 years .But it is cheap.
>>
>>
>> I question that 7-8 year figure. Some Finnish friends put up a
>> "temporary" tower with a tribander at the OH0Z site in the 1990s. They
>> used new polypropylene ski rope. I went out one weekend and there lay
>> the tower and tribander, victims of a guy rope failure. I'd NEVER use
>> the stuff for guying or antenna supports.
>
>
> I've not found the polyester stuff to be very good either. I wonder
> if that stuff lasting for 7 years might be something else?

Polyester or polypropylene? The polyester is pretty good even without
the black UV resistant layer. Polypropylene frizzes, fades and gets
weak very, very quickly.

>>> Polyester rope as used on sailing boats is UV resistant (even without
>>> carbon black) and would last 30+ years ,but it is relatively expensive.
>>
>>
>> Polyester is excellent material. There is a polyester rope sold under
>> the "Synthetic Textiles" name here in the U.S. which is simply great.
>> It is braided, not twisted. The inner core is white. There is an
>> outer braid which is black. I have some which is fourteen years old.
>> It is still strong and flexible.
>
> Does it have much stretch? I'm looking for something new after
> replacing my dipole the third time since January.....

One of the very good things about polyester rope is that it doesn't stretch much at all--let's say, compared to nylon rope which stretches a great deal.

Where is your rope breaking and what is it attached to? I use plain old nylon 1/4" rope to support the end of my inverted L for 160m. The far end runs though a nylon pulley attached to another rope up in a maple tree. The rope attached to the antenna runs down the tree and is attached to an old window sash weight. The weight is free to bob up and down with the swaying of the tree. That keeps the rope and antenna wire from breaking.

>
>
>>> Plastic antenna insulators (sold in the UK) are usually black , so
>>> are the outdoor balun enclosures and plastic insulators on Yagi
>>> antennes.
>>
>>
>> We're now seeing some white plastic insulators here. I tried some in
>> the sun of Africa. They looked like they were pitted and
>> deteriorating after three years in the sun of Botswana. I either use
>> ceramics or make my own out of 1/2" thick clear plexiglass sheet or
>> 3/4" plexi rod. That yellows but doesn't otherwise seem to deteriorate.
>
>
> I've been using black plastic eggs sold for electric fencing apps.
> They've worked well for about 5 years now.

They're likely a little short for high power, Mike. You might consider using a couple of them at each end with a short piece of nylon rope in between them. I use the black plastic "nail-on" fence insulators for running a beverage antenna down a tree line. They are cheap and they work well. The have a snap-in retainer so they're easy to re-use if the aluminum fence wire I'm using should ever break.

I use those Hy-Gain center insulators made of black plastic with rubber membrane and stainless screws and nuts. They never seem to fail and certainly keep water out of the coaxial cable. Ten-Tec is making their little Acro-Bat center insulator. It is good for 300 ohm window line and RG-58 but they don't make a model for RG-213-sized cable.

Dave K8MN

1878. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 03:49:40 UTC
From: Don <ve7ado@yahoo.ca>
Message-ID: <oLV5g.7431$W6.6471@edtnps89>
Source record: 60118

try this one 73 ve7ado

http://www.eh-antenna.com/library/EH_ANTENNA_FOR_HAMS.pdf

"Buck" <not@this.time> wrote in message
news:jb0a52t70cqcnl4o482hh815fkadf6hbmk@4ax.com...
> Can anyone tell me about this RoomCap Antenna?
>
> The best I can find on the antenna is a picture of what looks like a
> piece of PVC with a capacity hat on it.
>
> I keep getting advertisements on the email reflectors and when I check
> the website, it asks for me to email for more information. I have
> done so several times and never received a response.
>
> What can you all tell me about this antenna?
>
> Thanks,
> Buck
>
> --
> 73 for now
> Buck
> N4PGW

1879. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 05:00:34 UTC
From: Jack Hamilton <jfh@acm.org>
Message-ID: <qtdg5216b5leq7tsm25n48u1vphlrk0i73@4ax.com>
Source record: 59756
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Dee Flint" <deeflint01@comcast.net> wrote:

>
>> You are claiming that there are circumstances under which CW can be
>> understood but none of the newer digital modes can? Assuming, of
>> course, a skilled operator for CW and appropriate equipment for digital
>> modes. Or even software for both.
>>
>>
>
>That is correct. Let's just take a very simple example. PSK is one of our
>newest digital modes. When there are auroral disturbances, PSK cannot be
>used. The phase shifts induced by the auroral activity make it impossible
>for the computer to read. These phase shifts effect all the modes. Modes
>that depend on phase shifts (such as PSK) are affected the most severely and
>quickly become unusable. On the other hand, CW takes on a buzzy, raspy
>sound but a human operator can still decipher it although a computer will
>fail. I have personally experienced these conditions. If the auroral
>induced phase shifts aren't too severe even SSB will get through when PSK
>has failed. I have also personally experienced this.

OK. I wqas thinking of weak but undistorted signals - there seems to be
evidence that digital modes can get through when CW can't even be heard.
Audible but distorted signals, as you mention, are a different problem,
one that I wasn't thinking of. Sort of like those distorted letters you
have to decypher to gain access to restricted Yahoo groups, GoDaddy
domain information, and various other web sites - a machine can
certainly see them, but OCR isn't good enough to read them (neither am
I, sometimes).

Jack Hamilton
jfh@acm.org

Though in a state of society some must have greater
luxuries and comforts than others, yet all should have
the necessities of life; and if the poor cannot exist,
in vain may the rich look for happiness or prosperity.
The legistlature is never so well employed as when they
look to the interests of those who are at a distance
from them in the ranks of society. It is their duty
to do so; religion calls for it; humanity calls for it;

and if there are hearts who are not awake to either of
those feelings, their own interests would dictate it.

Sir Lloyd Kenyon, Rex vs. Rusby, 1800

1880. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 06:09:53 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146636593.492337.13540@y43g2000cwc.googlegroups.com>
Source record: 60119

I agree with Roy on this, that an accurate understanding will take some fairly serious analysis. For example, the top hat in my example had _less_ shortening effect than simply using a wire with radius only 1/4 as large as the length of the top hat radials. Also, calculations of the capacitance of a spherical capacitor, compared with capacitance per unit length of the antenna wire, don't give me any confidence that the end capacitance fully explains the shortening effect.

Cheers,
Tom

1881. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 09:49:56 UTC
From: Buck <not@this.time>
Message-ID: <85vg52t9207ouotls9esq04ple5f3gc584@4ax.com>
Source record: 60120

On Wed, 03 May 2006 03:49:40 GMT, "Don" <ve7ado@yahoo.ca> wrote:

>try this one 73 ve7ado
>
>http://www.eh-antenna.com/library/EH_ANTENNA_FOR_HAMS.pdf
>
>"Buck" <not@this.time> wrote in message
>news:jb0a52t70cqcnl4o482hh815fkadf6hbmk@4ax.com...
>> Can anyone tell me about this RoomCap Antenna?
>>

Thanks, Don.

--
73 for now
Buck
N4PGW

1882. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 12:06:27 UTC
From: Dan Richardson <>
Message-ID: <st6h52t5nn3c8oicd6mtjgud7elburcph2@4ax.com>
Source record: 60121

On Tue, 02 May 2006 22:58:00 -0400, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:

>Anyone here have a good web reference on making a 4:1 balun? I'm looking
>for the dual core design, not the single core design. Lots of those to
>google.
>
> Do the single core designs really not work? I had a single core
>homebrew that seemed to work, but I'm a tad confused after hearing that
>they don't.
>
The Sept/Oct 2005 issue of QEX has a 4:1 balun design that may
interest you. It can be found on the ARRL's members only web site.

http://www.arrl.org/qex/2005/qx9roos.pdf

73,
Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

1883. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 13:16:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <X226g.1073$fb2.574@newssvr27.news.prodigy.net>
Source record: 60122

Dan Richardson wrote:
> The Sept/Oct 2005 issue of QEX has a 4:1 balun design that may
> interest you. It can be found on the ARRL's members only web site.

Would a 4:1 voltage balun fed through a husky 1:1 choke
(W2DU BALUN) accomplish the same thing?
--
73, Cecil http://www.qsl.net/w5dxp

1884. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 13:22:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <F826g.1074$fb2.1043@newssvr27.news.prodigy.net>
Source record: 60123

Mike Coslo wrote:
> Do the single core designs really not work? I had a single core
> homebrew that seemed to work, but I'm a tad confused after hearing that
> they don't.

The single core designs are usually voltage baluns and
what we hams want are balanced currents. I don't see
why you couldn't just add a husky 1:1 W2DU style choke
on the 50 ohm side of your 4:1 voltage balun to inhibit
common mode current. The extra toroid in the afore mentioned
QEX article is a 1:1 choke attached to a 4:1 voltage balun.
--
73, Cecil http://www.qsl.net/w5dxp

1885. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 14:04:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <XL26g.1086$fb2.218@newssvr27.news.prodigy.net>
Source record: 60124

Dave wrote:
> I gave up on the 'missing degrees' and all variations topic about 1
> month ago. Hit the KILL Button and read on!

For those who didn't give up, here is a summary of what I
was able to do with EZNEC. This exercise should be able
to be repeated in the real world.

1. Using the helix feature of EZNEC, I created a 100 turn
octagonal coil, 6 inches in diameter, 4 turns per inch.

2. I installed it as a base loading coil over a mininec
ground plane and removed turns until it was self-resonant
on 4 MHz. That left a total of 69 turns on a 1.435 foot
long coil. Give that the coil is 90 degrees at the self-
resonant frequency, I calculated a velocity factor of
0.023 for the coil.

3. The coil was then trimmed to half size, i.e. 34.5 turns.
Assuming it was then 45 degrees long, the Z0 was determined
to be approximately 2200 ohms by looking at the feedpoint
impedance reported by EZNEC. 45 degrees from 0-j0 on the
Smith Chart is at -j1.0.

4. A stinger was added to the above 45 degrees of coil to
bring the antenna back to resonance on 4 MHz. It took 7 ft.
of stinger, or 10.2 degrees. 10.2 degrees from 0-j*infinity
on the Smith Chart is at -j4.8.

5. The ratio of -j4.8/-j1.0 is the ratio of the Z0 of the
coil to the Z0 of the stinger. If the Z0 of the coil is
indeed 2200 ohms, the Z0 of the stinger is 458 ohms, just
about where it should be. The impedance discontinuity
provides the "missing" ~35 degrees of the antenna.

6. Using Dr. Corum's equation for velocity factor yields
0.02 for that coil, a value 13% lower than the one
predicted by EZNEC, well within the ballpark for
expectations.

My conclusions: The delay through a loading coil is in
the tens of degrees. The delay through the elements of
the antenna do not add up to 90 degrees. In the above
EZNEC example, the delay from feedpoint to the tip of
the antenna is only 55 degrees. The "missing"
degrees are provided by the impedance discontinuity
between the coil and the stinger. There is no real-

time delay associated with those "missing" degrees.
--
73, Cecil http://www.qsl.net/w5dxp

1886. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 14:08:25 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <FIydnVz78MLFJMXZRVn-qQ@comcast.com>
Source record: 60125

Opps!

ALPHA and BETA got transformed into ? and j?

Dave wrote:

> Cecil Moore wrote:
>
>> K7ITM wrote:
>>
>>> Those sources also don't tell me anything about
>>> "velocity factor" as far as I can tell.
>>
>>
>>
>> What RF engineers call "velocity factor" is related to the phase
>> constant in the complex propagation constant embedded in any
>> transmission line equation in any decent textbook. Do your
>> sources tell you anything about the complex propagation constant?
>
>
> Complex propagation constant is ? = ? +j? :
>
> Where:
>
> ? is the attenuation in Nepers/wavelength
>
> ? is the phase shift in Radians/wavelength
>
> Did I pass ??????????
>
>

1887. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 14:11:07 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <FIydnV_78MJmJMXZRVn-qQ@comcast.com>
Source record: 60126

Cecil Moore wrote:

> Dave wrote:
>
>> Complex propagation constant is ? = ? +j? :
>> ? is the attenuation in Nepers/wavelength
>> ? is the phase shift in Radians/wavelength
>> Did I pass ??????????
>
>
> If I remember correctly, SQRT(Z*Y) results in a
> dimensionless quantity.

Alpha and Beta got transformed into ? and j?. Gamma also got transformed
into ?.

What kind of bait are you throwing out about SQRT[Z*Y] ?

1888. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 14:22:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <L036g.1093$fb2.664@newssvr27.news.prodigy.net>
Source record: 60127

Dave wrote:
> Alpha and Beta got transformed into ? and j?. Gamma also got transformed
> into ?.

Now it makes more sense. :-) What is scarey is that some
browsers may display Greek characters correctly and some
may not.

> What kind of bait are you throwing out about SQRT[Z*Y] ?

Z is the distributed series impedance and Y is the distributed
shunt admittance. The equation for the propagation constant
is gamma = alpha + j*beta = SQRT(Z*Y). Doesn't multiplying
an impedance by an admittance result in a dimensionless
quantity?
--
73, Cecil http://www.qsl.net/w5dxp

1889. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 14:32:46 UTC
From: "Robert Lay (W9DMK)" <nobody@crosslink.net>
Message-ID: <lgeh52t4b0lp0ehr6e88m9d9stv83l9jd6@4ax.com>
Source record: 60128

On 2 May 2006 01:09:53 -0700, "electro" <electromagnetic377@yahoo.com>
wrote:

>in other words, when i have a transmit modulation bandwith of 500kbps
>my peak power level must be 8 dBm...right?

No - that is not correct, in my opinion. My interpretation is that the
spectral power density in a 500 Hz bandwidth must not exceed the limit
of 2 milliwatts per Hz. (Simply spread the 1 watt over a width of 500
Hz.
In my original post I thought your message said 500Hz. Now I see you
are saying 500kHz. Which is correct?

>what if i use 6khz or
>5khz?does proportionality hold here or just say in any bandwith not
>greater than 500khz, the peak power level should not always exceed
>8dBm?..

The 8 dBm is a red-herring. I took your value of 8 dB as Gospel. If
someone says 8 dB they don't mean 8 dBm and vice versa.

Can you make sure of the accuracy of your excerpts, because I see
nothing in the Part 15 regs that correlate with your numbers.

In other words, I'm working with nothing but your excerpts and common
sense electrical engineering.

1890. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 14:34:05 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <KJqdnevxkK_AIsXZnZ2dnUVZ_v6dnZ2d@comcast.com>
Source record: 60129

In item 2 you make an unsupported statement: "Give that the coil is 90 degrees at the self-resonant frequency,..."

Self resonance only means that the capacitive and inductive reactances, both distributed, are equal. That does not validate a 90 degree assumption. Without that validation, IMO, the subsequent discussion is questionable.

Cecil Moore wrote:

> Dave wrote:
>
>> I gave up on the 'missing degrees' and all variations topic about 1
>> month ago. Hit the KILL Button and read on!
>
>
> For those who didn't give up, here is a summary of what I
> was able to do with EZNEC. This exercise should be able
> to be repeated in the real world.
>
> 1. Using the helix feature of EZNEC, I created a 100 turn
> octagonal coil, 6 inches in diameter, 4 turns per inch.
>
> 2. I installed it as a base loading coil over a mininec
> ground plane and removed turns until it was self-resonant
> on 4 MHz. That left a total of 69 turns on a 1.435 foot
> long coil. Give that the coil is 90 degrees at the self-
> resonant frequency, I calculated a velocity factor of
> 0.023 for the coil.
>
> 3. The coil was then trimmed to half size, i.e. 34.5 turns.
> Assuming it was then 45 degrees long, the Z0 was determined
> to be approximately 2200 ohms by looking at the feedpoint
> impedance reported by EZNEC. 45 degrees from 0-j0 on the
> Smith Chart is at -j1.0.
>
> 4. A stinger was added to the above 45 degrees of coil to
> bring the antenna back to resonance on 4 MHz. It took 7 ft.
> of stinger, or 10.2 degrees. 10.2 degrees from 0-j*infinity
> on the Smith Chart is at -j4.8.
>
> 5. The ratio of -j4.8/-j1.0 is the ratio of the Z0 of the
> coil to the Z0 of the stinger. If the Z0 of the coil is
> indeed 2200 ohms, the Z0 of the stinger is 458 ohms, just
> about where it should be. The impedance discontinuity

> provides the "missing" ~35 degrees of the antenna.
>
> 6. Using Dr. Corum's equation for velocity factor yields
> 0.02 for that coil, a value 13% lower than the one
> predicted by EZNEC, well within the ballpark for
> expectations.
>
> My conclusions: The delay through a loading coil is in
> the tens of degrees. The delay through the elements of
> the antenna do not add up to 90 degrees. In the above
> EZNEC example, the delay from feedpoint to the tip of
> the antenna is only 55 degrees. The "missing"
> degrees are provided by the impedance discontinuity
> between the coil and the stinger. There is no real-
> time delay associated with those "missing" degrees.

1891. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 14:35:46 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1146666946.040014.279390@e56g2000cwe.googlegroups.com>
Source record: 60130

Single core baluns do work in the sense that they will pass signals without strong attenuation in most cases, they will transform impedances properly, and they are broadband. They will work well in a system that is already fairly well balanced.

You will need to evaluate your application as single core 4:1 baluns have the following disadvantages compared to, say, the 4:1 Guanella two-core current balun:

1. They do not supress common-mode currents well.
2. They require a larger core to work with a given power in a fairly well-balanced system (a severely unbalanced system might have to be evaluated more carefully to determine core size).
3. When properly built with a core that couples most all flux to all windings, the single core balun will have no output into a fully unbalanced system. An unbalanced system is one where either end of the load is grounded. A balanced system is one where the load is grounded in the center. There is also a floating system where the load is not grounded at all.

They have the advantage that they only use one core.

On an antenna, the effects of using a voltage balun (all single core 4:1 baluns seem to be voltage baluns) instead of a current balun can be subtle or even undetectable. My experience with an offset fed dipole was that the antenna receive signal-to-noise ratio degraded under some conditions without a current balun in place (maybe simply because the pattern was different). Adding the current balun helped, and the antenna tuned a little more as I expected it to on the higher bands. My feedline is near a huge aluminum siding slab, and I think there was some effect from that.

An offset fed dipole can be pretty unbalanced, though. Other antennas might do just fine with a single core balun.

I'm sure others will add their comments, and perhaps disagree with me. This has been a controversial subject in the past, but more recent discussions have been better.

73,
Glenn Dixon AC7ZN

1892. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 14:40:45 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1146667245.316378.171060@y43g2000cwc.googlegroups.com>
Source record: 60131

Here is what seems to be a nice link for the Guanella 2 core:
http://www.njqrp.org/balun/Balun%20Manual%20-%20final.pdf

1893. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 14:47:07 UTC
From: "Robert Lay (W9DMK)" <nobody@crosslink.net>
Message-ID: <f5gh52dv06sabmn5r8o6ll8q951dfbum1u@4ax.com>
Source record: 60132

On Mon, 1 May 2006 22:59:20 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Fry wrote:
>"Such networks don`t add or subtract electrical degrees, however. They
>only reduce/cancel the natural reactance of the physical radiator in
>use."
>
>True if the only mismatch is reactance. A too-long antenna can be
>electrically shortened for matching purposes by tuning it to resonance
>with the proper series capacitance. A too-short antenna can be
>electrically lengthened for matching purposes by tuning it to resonance
>with the proper series inductance.
>
>Reactance varies quickly near the resonant length. Radiation resistance
>varies more slowly tending to increase at a steady rate as the antenna
>is lengthened.
>
>What radiates is current in a length of antenna. What gets current into
>an antenna is a conjugate match. Reactance is zeroed out, and source and
>load resistances are matched. That`s what`s needed for maximum power
>transfer between generator and antenna.
>
>Analysis may have been more abundant than needed for practical purposes.
>
>The velocity of current through a coil has been disputed. Some said it
>was almost instantaneous. That was new to me. The nature of inductance
>is to produce counter emf which by Lenz`s law opposes current into an
>inductance and temporarily delays current changes in an inductance. Only
>in a pure resistance is there instantaneous correlation between voltage
>and current.

Constraining the discussion to lumped circuit theory, the delay that you speak of would seem to be relevant if one is measuring transient response. However, for a steady-state a.c. current, is it not more appropriate to describe the relationship as a phase lag between the current through and the voltage across the inductor? Further, is it not the case that such phase difference is nominally fixed at near 90 degrees (for a high Q inductor), and is it not true that the velocity is nonetheless at the speed of light?

>
>It is believed that the speed of light "c" is a speed limit on
>electromagnetic waves. An action in one place must have a delayed
>response elsewhere depending on distance.

>
>I can imagine a wave launched at one of an inductor sweeping across its
>length and ignoring the round and round path of the wire, but I don`t
>know of any of the old authors in my collection who say that such a
>short-cut happens. Conductors are the source of free electrons which
>permit current flow and my experience is that electricity goes where it
>is wired.
>
>Best regards, Richard Harrison, KB5WZI

1894. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 14:59:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <dz36g.1103$fb2.846@newssvr27.news.prodigy.net>
Source record: 60133

Dave wrote:
> In item 2 you make an unsupported statement: "Give that the coil is 90
> degrees at the self-resonant frequency,..."
>
> Self resonance only means that the capacitive and inductive reactances,
> both distributed, are equal. That does not validate a 90 degree
> assumption. Without that validation, IMO, the subsequent discussion is
> questionable.

Quoting from the Corum paper concerning self resonance
of a coil:

"The forward and backward traveling waves have superposed
to give this voltage standing wave distribution along the
resonator. There is a voltage null at the base, a voltage
maximum at the top, and a sine wave envelope along the
structure." That defines 90 degrees of coil.

For the standing wave, there are 90 degrees between a voltage
null and a voltage maximum. The voltage maximum at the top
of the coil corresponds to the current null existing there
because the current has no place to go. The voltage null at
the base corresponds to the current maximum there which is
a necessary condition for self resonance. There's 90 degrees
between a voltage null and a voltage maximum. There's 90
degrees between a current null and a current maximum.
--
73, Cecil http://www.qsl.net/w5dxp

1895. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 15:06:45 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1146668805.880063.32390@v46g2000cwv.googlegroups.com>
Source record: 60134

I forgot to mention: using a voltage balun on an antenna can have RF-in-the-shack implications. A 20M folded dipole I once built with a 4:1 trifilar wound voltage balun was terrible even though it was center-fed. Tuning was extremely touchy and removing my hand from the tuner knob would detune the antenna. I did not try a current balun on that antenna and it is history now. Maybe some one else has had simialr experience.

Glenn

1896. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 15:33:59 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1146670439.394539.303620@j33g2000cwa.googlegroups.com>
Source record: 60135

I asked a similar question a bit ago. Here's one I got in response.

http://www.yccc.org/Articles/W1HIS/CommonModeChokesW1HIS2006Apr06.pdf

This guy made a MONSTER 4:1 current balun.

73,
Dan
N3OX

1897. Measuring quarter wave cable length with HP 8405A

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 16:37:00 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <3omh52p0s8ch01bocrb8l3bgbd2deg5en9@4ax.com>
Source record: 60136

I am using an HP 8405A vector voltmeter to try and measure the delay
in a transmission line in the 2 meter band.
This is part of a phasing harness for a pair of 2 meter antennas to
put them into circular polarization.

The set up is as follows: A T connector on the signal generator with a
pair of 75 ohm ï¿½ wave length jumpers from either side of the T. At the
ends I put an adaptor and a bnc T connector of which one side connects
to the probe of the 8405A and the other end of the bnc T is a 50 ohm
load.
The other 75 ohm ï¿½ wave jumper has the same setup with the bnc T, 50
ohm load and B channel probe of the 8405A.

With this I see a zero degree phase difference on the 8405A as it
should be.
Then I insert a ï¿½ wave length 50 ohm cable between one of the 75 ohm
cable ends and the bnc T connector / 8405A probe connection point.
There are the same number of adaptors in each side of the lines. The
only addition is one barrel connector and the ï¿½ wave length of 50 ohm
cable. (this is in the B channel by the way)
The additional barrel connector is part of the ï¿½ wave length on the 50
ohm line.

The wanted frequency is 145 Mhz.
Rather than seeing 90 degrees delay with the added 50 ohm line section
I only see 60 degrees of delay?? If I run the frequency up to around
180 Mhz I get the 90 degrees delay shown on the 8405A.
What do you suppose I am doing wrong in the measurement setup?

I have measured the delay on the 50 ohm line section by itself (with
the one barrel connector) and I see 90 degrees of delay at 145 Mhz. I
used 20 db pads on each side of the T from the signal generator to
isolate the two sides of the test setup when measuring this cable by
itself.

Thanks
Gary K4FMX

1898. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 16:52:15 UTC
From: "Robert Lay (W9DMK)" <nobody@crosslink.net>
Message-ID: <0qnh529sudqlmqmhq5142s58q9ejo4jhse@4ax.com>
Source record: 60137

On 1 May 2006 06:47:45 -0700, "electro" <electromagnetic377@yahoo.com>
wrote:

>under unlicensed 2.4GHz FCC part 15 for digital modulation
>system(non-spread spectrum), it says that the
>1. maximum conducted power is 1W
>2. the spectral density be not greater than 8dB for every 3khz band
>during continous transmission
>3. the 6-dB bandwith is at least 500khz
>
>question:
>1. what is spectral density in this sense and its significance?
>2. how can i measure my spectral density?
>3. how does 1, 2 and 3 relate to each other?

I downloaded the FCC's Part 15 regulations and have concluded:

1) They do say 500 kHz bandwidth
2) They do refer to +8dBm - not 8 dB
3) I agree with Tom's response

1899. Re: Measuring quarter wave cable length with HP 8405A

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 16:52:47 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-017FDE.08531003052006@netnews.worldnet.att.net>
Source record: 60138

In article <3omh52p0s8ch01bocrb8l3bgbd2deg5en9@4ax.com>,
Gary Schafer <gaschafer@comcast.net> wrote:

> I am using an HP 8405A vector voltmeter to try and measure the delay
> in a transmission line in the 2 meter band.
> This is part of a phasing harness for a pair of 2 meter antennas to
> put them into circular polarization.
>
> The set up is as follows: A T connector on the signal generator with a
> pair of 75 ohm wave length jumpers from either side of the T. At the
> ends I put an adaptor and a bnc T connector of which one side connects
> to the probe of the 8405A and the other end of the bnc T is a 50 ohm
> load.
> The other 75 ohm wave jumper has the same setup with the bnc T, 50
> ohm load and B channel probe of the 8405A.
>
> With this I see a zero degree phase difference on the 8405A as it
> should be.
> Then I insert a wave length 50 ohm cable between one of the 75 ohm
> cable ends and the bnc T connector / 8405A probe connection point.
> There are the same number of adaptors in each side of the lines. The
> only addition is one barrel connector and the wave length of 50 ohm
> cable. (this is in the B channel by the way)
> The additional barrel connector is part of the wave length on the 50
> ohm line.
>
> The wanted frequency is 145 Mhz.
> Rather than seeing 90 degrees delay with the added 50 ohm line section
> I only see 60 degrees of delay?? If I run the frequency up to around
> 180 Mhz I get the 90 degrees delay shown on the 8405A.
> What do you suppose I am doing wrong in the measurement setup?
>
> I have measured the delay on the 50 ohm line section by itself (with
> the one barrel connector) and I see 90 degrees of delay at 145 Mhz. I
> used 20 db pads on each side of the T from the signal generator to
> isolate the two sides of the test setup when measuring this cable by
> itself.
>
> Thanks
> Gary K4FMX
>

When you figured the length of the 1/4 wave section, did you account
for the Velocity Factor of the cable?

Me

1900. Re: Measuring quarter wave cable length with HP 8405A

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 17:18:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sB56g.20817$4L1.2291@newssvr11.news.prodigy.com>
Source record: 60139

Gary Schafer wrote:
> The wanted frequency is 145 Mhz.
> Rather than seeing 90 degrees delay with the added 50 ohm line section
> I only see 60 degrees of delay?? If I run the frequency up to around
> 180 Mhz I get the 90 degrees delay shown on the 8405A.
> What do you suppose I am doing wrong in the measurement setup?

I don't understand the description of the test setup so
this may be a stupid question but what would a 50 ohm
SWR meter read if installed in that 50 ohm line during
the test?
--
73, Cecil http://www.qsl.net/w5dxp

1901. Re: Gain of 2.4GHz WiFi vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 17:23:18 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <a5mdnSYsw617e8XZnZ2dnUVZ_vGdnZ2d@comcast.com>
Source record: 60140

<pdrunen@aol.com> wrote in message
news:1146576950.559148.53790@j33g2000cwa.googlegroups.com...
> Hi Group,
>
> D-link has a vertical antenna for WiFi applications which is about a
> foot long and operates at 2.4 GHz with a stated 7dbi gain.
>
> Since the antenna is a vertical, I thought that the best low-angle
> radiation is 5/8 wave for verticals, anything longer would put the
> lobes higher and would result in a lower low angle gain.
>
> If this is the case then the antenna should only be about 3.5 inches
> long. ?
>
> I am going to check, but I bet the true antenna is only about this
> lenght and the rest of the lenght is the plastic, so the appeal is
> bigger is better.
>
> Any thoughts on this?
>
Unless you can see the wire, it may not just have a single radiator. We used
some Andrew 2GHz antennas at work that were about 3 feet long, and an inch
thick. I believe it was made up of multile 1/2 wave phased radiators.

Tam/WB2TT

1902. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 17:47:06 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <rZSdnZtg_JoHccXZnZ2dnUVZ_umdnZ2d@comcast.com>
Source record: 60141

SQRT[Z*Y] = SQRT [[Z11 + jZ12]*[Y11 + jY12]] = Z11*Y11 - Z12*Y12
+jZ12*Y11 +jY12*Z11 [I think I got all the terms correct.]

So, the attenuation constant is still a complex number and it is
dimensionless.

In the transmission line equations the attenuation constant is
multiplied by line length yielding an expression in Nepers
[dimensionless] and radians [dimensionless].
Cecil Moore wrote:

> Dave wrote:
>
>> Alpha and Beta got transformed into ? and j?. Gamma also got
>> transformed into ?.
>
>
> Now it makes more sense. :-) What is scarey is that some
> browsers may display Greek characters correctly and some
> may not.
>
>> What kind of bait are you throwing out about SQRT[Z*Y] ?
>
>
> Z is the distributed series impedance and Y is the distributed
> shunt admittance. The equation for the propagation constant
> is gamma = alpha + j*beta = SQRT(Z*Y). Doesn't multiplying
> an impedance by an admittance result in a dimensionless
> quantity?

1903. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 17:54:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7766g.20846$4L1.20063@newssvr11.news.prodigy.com>
Source record: 60142

Dave wrote:
> So, the attenuation constant is still a complex number and it is
> dimensionless.

The attenuation constant is a real number, not a complex number.
--
73, Cecil http://www.qsl.net/w5dxp

1904. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 18:14:18 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <bsSdnR44AsZmb8XZnZ2dnUVZ_tmdnZ2d@comcast.com>
Source record: 60143

Cecil Moore wrote:

SNIPPED
> Quoting from the Corum paper concerning self resonance
> of a coil:
>
> "The forward and backward traveling waves have superposed
> to give this voltage standing wave distribution along the
> resonator. There is a voltage null at the base, a voltage
> maximum at the top, and a sine wave envelope along the
> structure." That defines 90 degrees of coil.
>
> For the standing wave, there are 90 degrees between a voltage
> null and a voltage maximum. The voltage maximum at the top
> of the coil corresponds to the current null existing there
> because the current has no place to go. The voltage null at
> the base corresponds to the current maximum there which is
> a necessary condition for self resonance. There's 90 degrees
> between a voltage null and a voltage maximum. There's 90
> degrees between a current null and a current maximum.

Under that definition my 8 foot high mobile antenna has a voltage maximum at the top and a current maximum at the base and must, therefore, be 90 degrees long. But, it is physically only 16 degrees long [8/43.5 @ 5.37 MHz]. Now it is 5 degrees long above the top of the coil and 10 degrees long below the coil ... ad nauseum [for another 2 months] ...

Where is the other 74 degrees?? This is the question that started this 2 month discussion.

Is there a fallacy in Corum's paper?

Does Corum's paper apply to a combination of a loading coil and radiating elements?

My reasoning is as follows: if I draw a phasor diagram, I have +10 degrees phase shift from the feed point to the base of the coil. I can then assume a +90 degree phase shift in the coil, classical inductive response; then, the 'stinger', from the top of the coil to the tip of the antenna produces a net -10 degree phase shift from both inductive[+] and capacitive[-] effects resulting in a net 90 degree phase shift for the full eight foot antenna.

Am I being too simplistic?

I conclude that I have a 16 degree long antenna with a feedpoint resistance of ~13 ohms [Rr = ~1.0 ohm and Rloss = ~12 ohms] with zero ohms reactance [resonant]. [And that the phase shifts stated above are fundamentally correct.]

1905. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 18:31:12 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <oe6dnbeISoNta8XZnZ2dnUVZ_t2dnZ2d@comcast.com>
Source record: 60144

My error ... I meant propagation constant.

Cecil Moore wrote:

> Dave wrote:
>
>> So, the attenuation constant is still a complex number and it is
>> dimensionless.
>
>
> The attenuation constant is a real number, not a complex number.

1906. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 18:38:11 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146681491.911181.99070@u72g2000cwu.googlegroups.com>
Source record: 60145

Presumably you meant "propagation constant" (which is anything but constant for real lines). In any event it is most certainly is not dimensionless. If it were and you multiplied it by a length, your result would have units of length. Oh, and I think you left the sqrt off the right side of the equation. I guess Z11 is resistance per unit length, Z22 is the radian frequency times the inductance per unit length, etc?? Sigh.

Cheers,
Tom

1907. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 19:00:07 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <125hvhfq0l5vl7f@corp.supernews.com>
Source record: 60146

Mike Coslo wrote:
> Anyone here have a good web reference on making a 4:1 balun? I'm looking
> for the dual core design, not the single core design. Lots of those to
> google.
>
> Do the single core designs really not work? I had a single core
> homebrew that seemed to work, but I'm a tad confused after hearing that
> they don't.
>
> - 73 de Mike KB3EIA -
>
>
Better, easier and probably cheaper to buy what you need from Buxcomm.com

1908. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 19:26:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <4u76g.64848$_S7.5680@newssvr14.news.prodigy.com>
Source record: 60147

Dave wrote:
> Where is the other 74 degrees??

Please reference my other postings. It is all explained
there.

1. There are tens of degrees in the coil. That phase shift
is not instantaneous and obeys the VF of the coil.

2. There are tens of degrees in the impedance discontinuity
between the coil and stinger. That phase shift is instantaneous
and requires no delay.

3. There are tens of degrees in the stinger. That phase shift
is not instantaneous and obeys the VF of the stinger.

4. They all add up to 90 degrees.
--
73, Cecil http://www.qsl.net/w5dxp

1909. NewB: antenna and ADC howto

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 19:43:53 UTC
From: XaNder <xander.003GETRIDOFME@TOGLIMIfastwebnet.it>
Message-ID: <1K76g.18754$TK.18106@tornado.fastwebnet.it>
Source record: 60148

Hi all,

I'm Alexander and I'm a total newbe of radiofrequency comunication.
Fortunately I have a little knowledge of physics.

Now, my problem is: I want to record a raw UHF signal.
First step: I need an antenna. Any suggestion (web HowTos, pdf or anything alike)?
Once I have the antenna and the circuitry behind it, I'd need a means of recordingWhen I was at the university we had some nice toys which were able to create (wired) digital signals. No I suppose there also are spectrum analizers which could transform an analogic signal from the antenna to a digital one so it can be easily recorded on a pc. Unfortunately I don't even know how they are called! :-/ I called them ADC (as opposed to DAC), but never heard this term actually. Could you give me a track to follow?

Thanks to anyone so kind to help,

Alexander

1910. Re: Measuring quarter wave cable length with HP 8405A

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 19:58:13 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146686293.670437.92660@i39g2000cwa.googlegroups.com>
Source record: 60149

Something is not as it seems. I think I understand your setup; the ends of the 75 ohm lines both see 50 ohms when you're measuring, in both the zero degree "calibration" phase and with the measurement of the 50 ohm line inserted...assuming it really is 50 ohm line (though that shouldn't make a difference anyway). I assume you've tried swapping probes, and you see the 60 degree phase shift the opposite direction? The phase shift of 30 degrees going from 145 to 180 doesn't sound right: it sounds like the phase shift across a resonance, not the phase shift in a length of line versus frequency. What happens if you take your phase readings at several points across a range of frequencies, say 100MHz to 250MHz? What happens if you set up like in your first "calibration" phase, with the two probes at the outer ends of the two 75 ohms sections, and then compare between putting the 50 ohm load on (say) the B channel, and then putting the 50 ohm line section between the BNC T and the load? Things shouldn't change, doing that. And finally, what is the impdeance looking into the probe?

The stubs represented by the BNC Ts will cause some loading, but I don't think you could account for 30 degrees that way.

Do you have an independent way to check the phase accuracy of your meter? Like, a 10 ohm resistor across a probe, and a small capacitance--4.7pF, 10pF or so--from the generator [monitored by the other probe] to the 10 ohm. That should give you a known phase shift close to 90 degrees, if you know the capacitance reasonably accurately. You should be able to know it quite a bit closer than 30 degrees anyway.

Someone else mentioned taking velocity factor into account, but if you had measured off half a meter of line, the velocity factor would give you MORE phase shift, not less.

Cheers,
Tom

1911. Re: NewB: antenna and ADC howto

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 20:10:06 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146687006.485441.17900@j73g2000cwa.googlegroups.com>
Source record: 60150

The antenna you pick should depend on just what you are trying to receive. Could you give us any more info?

As for digitizing the signal, yes, you can actually buy receivers with digital output, though good ones tend to be expensive. If you want very broadband digitization, you can get ADCs that sample at 10^9 samples/second and above, but only to about 8 bits of resolution, and accuracy even less than that. If you want to digitize only a relatively narrow band, you can use analog techniques to convert the signal to a lower frequency, or you can use an ADC that is capable of "undersampling" -- accurately sampling a signal at a frequency above half its sampling frequency. In either case, you need filters to insure that the band of frequencies you let through doesn't cause "aliasing". (You should be able to find plenty on that with a web search.) Anyway, there are some key questions: what signals do you want to receive, and what bandwidth do you want to digitize? Do you want to be able to adjust the center frequency of the band you digitize, or will it be fixed? What dynamic range do you need? What amount of noise in the receiver can you tolerate? Without answers to these basic questions and some others, you probably won't get the results you seek. On the back end, another question is, what will you do with the data? Can you record it or process it real-time without choking on it? And finally, are you looking to buy a system, or build one, or some combination?

Cheers,
Tom

1912. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 20:19:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125i422gjc92dcf@corp.supernews.com>
Source record: 60151

Dave wrote:
>
> Where is the other 74 degrees?? This is the question that started this
> 2 month discussion.
>
> Is there a fallacy in Corum's paper?
>
> Does Corum's paper apply to a combination of a loading coil and
> radiating elements?
>
> My reasoning is as follows: if I draw a phasor diagram, I have +10
> degrees phase shift from the feed point to the base of the coil. I can
> then assume a +90 degree phase shift in the coil, classical inductive
> response; then, the 'stinger', from the top of the coil to the tip of
> the antenna produces a net -10 degree phase shift from both inductive[+]
> and capacitive[-] effects resulting in a net 90 degree phase shift for
> the full eight foot antenna.
>
> Am I being too simplistic?
>
> I conclude that I have a 16 degree long antenna with a feedpoint
> resistance of ~13 ohms [Rr = ~1.0 ohm and Rloss = ~12 ohms] with zero
> ohms reactance [resonant]. [And that the phase shifts stated above are
> fundamentally correct.]

You don't need to go to anywhere near that much trouble. If you replace the stinger with a lumped series RC to ground with the same impedance as the stinger, you'll get nearly the same currents, both magnitude and phase, at the top and bottom of the coil as you did with the stinger. No "missing degrees" -- no "degrees" at all, in fact. No forward and reverse traveling waves, no standing waves. No smoke and mirrors, no bafflegab. Just plain old circuit analysis.

Roy Lewallen, W7EL

1913. Re: Measuring quarter wave cable length with HP 8405A

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 20:29:59 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125i4mcgol7vv65@corp.supernews.com>
Source record: 60152

Forgive me for asking questions about seemingly obvious things, but something isn't as it appears. If it's really like you've described, the phase difference should be 90 degrees.

Please verify that the added 50 ohm quarter wave section is between the end of the 75 ohm line and the 50 ohm terminator/probe connector as you described and not between the signal generator tee and one of the 75 ohm lines. If the latter, you will get something other than 90 degrees of phase shift, although I haven't run the numbers to see what it would be.

Are you sure the added quarter wave line is 50 and not 75 ohms?

Also, what's the ratio of voltage magnitudes at the two probes?

Roy Lewallen, W7EL

Gary Schafer wrote:
> I am using an HP 8405A vector voltmeter to try and measure the delay
> in a transmission line in the 2 meter band.
> This is part of a phasing harness for a pair of 2 meter antennas to
> put them into circular polarization.
>
> The set up is as follows: A T connector on the signal generator with a
> pair of 75 ohm ï¿½ wave length jumpers from either side of the T. At the
> ends I put an adaptor and a bnc T connector of which one side connects
> to the probe of the 8405A and the other end of the bnc T is a 50 ohm
> load.
> The other 75 ohm ï¿½ wave jumper has the same setup with the bnc T, 50
> ohm load and B channel probe of the 8405A.
>
> With this I see a zero degree phase difference on the 8405A as it
> should be.
> Then I insert a ï¿½ wave length 50 ohm cable between one of the 75 ohm
> cable ends and the bnc T connector / 8405A probe connection point.
> There are the same number of adaptors in each side of the lines. The
> only addition is one barrel connector and the ï¿½ wave length of 50 ohm
> cable. (this is in the B channel by the way)
> The additional barrel connector is part of the ï¿½ wave length on the 50
> ohm line.
>
> The wanted frequency is 145 Mhz.
> Rather than seeing 90 degrees delay with the added 50 ohm line section
> I only see 60 degrees of delay?? If I run the frequency up to around
> 180 Mhz I get the 90 degrees delay shown on the 8405A.
> What do you suppose I am doing wrong in the measurement setup?
>

> I have measured the delay on the 50 ohm line section by itself (with
> the one barrel connector) and I see 90 degrees of delay at 145 Mhz. I
> used 20 db pads on each side of the T from the signal generator to
> isolate the two sides of the test setup when measuring this cable by
> itself.
>
> Thanks
> Gary K4FMX
>

1914. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 21:07:46 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1146690465.951437.40460@i40g2000cwc.googlegroups.com>
Source record: 60153

The Buxcomm baluns seem to mention "THE core" when describing their 4:1 "current" baluns, and I've had plenty of my responses to my question of whether or not you can wind a true 4:1 current balun on a single toroid core.

The answer is no.

I'm sure if you go with the Buxcomm "BIG TALKER" "2500 watt" unit it won't overheat. It won't ensure equal currents either.

On a marginally related note, why buy when you can build? Better, easier, and probably cheaper?

Better? Nope, not a real current balun and good luck getting real technical info out of many vendors.

Easier? Yeah, unless you have to spend months trying to figure out why, even though you've got a "current" balun keeping the common mode RF "off" of your feedline, you still get RF bites from your mic.

Probably cheaper? Very possibly true... it is often cheaper to buy an assembled product than to buy the parts and put one together, but that's just no fun!

I can't advocate the purchase of simple ham radio station accessories when someone is trying to build them instead.

73,
Dan
N3OX

1915. Can you put a ground plane 1/2 wave below the antenna to keep the clean pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 21:51:05 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <GaydneBdbbRZuMTZRVn-og@adelphia.com>
Source record: 60154

Howdy:
When a 1/2 wave vertical is about 1/2 wave off the ground you get your best radiation pattern without extra lobes, but
if you were to put it on a tower, several wavelengths high, you get multiple lobes. My question is how can you
keep a clean radiation pattern when you are several wavelengths high with a 1/2 wave antenna? Can you put a ground
plane 1/2 wave below the antenna to keep the clean pattern?

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv
http://media.putfile.com/La-Gran-Marcha
The Mexican Solution:
http://www.centerforsecuritypolicy.org/index.jsp?section=papers&code=06-D_18

-

1916. Re: Measuring quarter wave cable length with HP 8405A

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 22:15:28 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <5dai52dp1ftujkssdqjh8398q2l5gusemr@4ax.com>
Source record: 60155

Thanks guys for the replies.

Yes the 50 ohm line is between the 75 ohm line and the bnc/ probe connection.

I did try the 50 ohm line between the bnc T and the load as K7ITM suggested. No change in phase.

These lines are factory made, cushcraft, lines and connectors. The 75 ohm sections are RG59 and the 50 ohm section is RG58/U. The connectors are crimp on PL type. The barrels are PL type.

My additional adaptors are 1 PL type barrel, a PL male to bnc female adaptor and the bnc T at the ends of each side where the 50 ohm loads and probe connections are.
The rest of the PL barrel (between the 50 and 75 ohm line) and PL type T connector at the generator is factory supplied as part of the network. I added a PL female to bnc male at the PL T to connect to the generator.

The length of the 50 ohm line is 9 ï¿½" from shielded area to shielded area (not counting the center pin exposed when shell is pulled back). With the barrel installed it makes it 10 ï¿½" in length that is shielded.

The two 75 ohm line sections from the center of the T connector to the shielded part of the connector on the other end are 10 ï¿½" for each.

The following are readings on the 8405A: 50 ohm line is installed in the B channel side. (with both 75 ohms lines installed as described)

180 Mhz = -90 degrees A channel -5dbm B channel -2dbm.
145 Mhz = -60 degrees A channel -3.5dbm B channel -3dbm

The following sweep was done:
110 Mhz = -55 Degrees.
160 Mhz = -65.
170 Mhz = -80.
180 Mhz = -90.

The following was measured with an MFJ 259B in place of the signal generator at the input T:
Freq SWR R X.
110 1.0 46 2.
120 1.0 46 0.
130 1.1 44 3.
140 1.2 41 7.

145 1.3 39 8.
175 1.5 33 7.

As far as verifying the 8405 at 90 degrees it seems to give the 90 degree reading with the 50 ohm coax length by itself with the method I earlier described with the two attenuators and T connector at the generator.

Reversing the probes gives the same reading but of course the opposite phase.

My thought is that the extra Barrel, Pl to bnc adaptor and bnc connector add enough length to change the impedance enough to throw things off? But the longer length seems like it would give more phase shift rather than less?

I think th probes are supposed to be around 100K? load. I also have some isolators for the probes which I tried and still got about the same readings. They raise the impedance of the probe. Not sure by how much offhand.

With the 50 ohm line and one barrel connected by itself to the MFJ259 it seems to dip at around 145 Mhz.

Thanks for the help.

Gary K4FMX

On Wed, 03 May 2006 13:29:59 -0700, Roy Lewallen <w7el@eznec.com> wrote:

>Forgive me for asking questions about seemingly obvious things, but
>something isn't as it appears. If it's really like you've described, the
>phase difference should be 90 degrees.
>
>Please verify that the added 50 ohm quarter wave section is between the
>end of the 75 ohm line and the 50 ohm terminator/probe connector as you
>described and not between the signal generator tee and one of the 75 ohm
>lines. If the latter, you will get something other than 90 degrees of
>phase shift, although I haven't run the numbers to see what it would be.
>
>Are you sure the added quarter wave line is 50 and not 75 ohms?
>
>Also, what's the ratio of voltage magnitudes at the two probes?
>
>Roy Lewallen, W7EL
>
>Gary Schafer wrote:
>> I am using an HP 8405A vector voltmeter to try and measure the delay
>> in a transmission line in the 2 meter band.
>> This is part of a phasing harness for a pair of 2 meter antennas to
>> put them into circular polarization.
>>

>> The set up is as follows: A T connector on the signal generator with a
>> pair of 75 ohm ï¿½ wave length jumpers from either side of the T. At the
>> ends I put an adaptor and a bnc T connector of which one side connects
>> to the probe of the 8405A and the other end of the bnc T is a 50 ohm
>> load.
>> The other 75 ohm ï¿½ wave jumper has the same setup with the bnc T, 50
>> ohm load and B channel probe of the 8405A.
>>
>> With this I see a zero degree phase difference on the 8405A as it
>> should be.
>> Then I insert a ï¿½ wave length 50 ohm cable between one of the 75 ohm
>> cable ends and the bnc T connector / 8405A probe connection point.
>> There are the same number of adaptors in each side of the lines. The
>> only addition is one barrel connector and the ï¿½ wave length of 50 ohm
>> cable. (this is in the B channel by the way)
>> The additional barrel connector is part of the ï¿½ wave length on the 50
>> ohm line.
>>
>> The wanted frequency is 145 Mhz.
>> Rather than seeing 90 degrees delay with the added 50 ohm line section
>> I only see 60 degrees of delay?? If I run the frequency up to around
>> 180 Mhz I get the 90 degrees delay shown on the 8405A.
>> What do you suppose I am doing wrong in the measurement setup?
>>
>> I have measured the delay on the 50 ohm line section by itself (with
>> the one barrel connector) and I see 90 degrees of delay at 145 Mhz. I
>> used 20 db pads on each side of the T from the signal generator to
>> isolate the two sides of the test setup when measuring this cable by
>> itself.
>>
>> Thanks
>> Gary K4FMX
>>

1917. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 22:29:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <f9a6g.21364$4L1.1791@newssvr11.news.prodigy.com>
Source record: 60156

Roy Lewallen wrote:
> You don't need to go to anywhere near that much trouble. If you replace
> the stinger with a lumped series RC to ground with the same impedance as
> the stinger, you'll get nearly the same currents, both magnitude and
> phase, at the top and bottom of the coil as you did with the stinger. No
> "missing degrees" -- no "degrees" at all, in fact. No forward and
> reverse traveling waves, no standing waves.

No understanding of the laws of physics -
just 1001 shortcuts and rules of thumb -
consistent with the dumbing down of the
US educational system and amateur radio.
--
73, Cecil http://www.qsl.net/w5dxp

1918. Re: Measuring quarter wave cable length with HP 8405A

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 22:34:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Rda6g.21374$4L1.12354@newssvr11.news.prodigy.com>
Source record: 60157

Gary Schafer wrote:
> 180 Mhz = -90 degrees A channel -5dbm B channel -2dbm.
> 145 Mhz = -60 degrees A channel -3.5dbm B channel -3dbm

Did anyone else notice that 90/60 = 75/50?
--
73, Cecil http://www.qsl.net/w5dxp

1919. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 22:55:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125id7656rs2vf3@corp.supernews.com>
Source record: 60158

Here's an interesting quote from S.A. Schelkunoff, "Theory of Antennas of Arbitrary Size and Shape", Proc. of the I.R.E., September, 1941 (footnote 17): "From the point of view developed in this paper there is no difference between 'end effect' and radiation."

This is the paper in which Schelkunoff develops his often-quoted approximate equations for antenna feedpoint impedance (the ones including sine and cosine integral -- Si and Ci -- terms). He says, basically, that an antenna acts like a transmission line -- a conical antenna like a constant-Z line and a cylindrical (e.g., wire or tubing) antenna like a variable-Z line -- *except at the ends*. At the ends, modes other than TEM are excited, resulting in radiation, modification of antenna impedance, and modification of current distribution. The radiation, he says, can be modeled as either a terminating impedance or as a distributed impedance (R and L) along the line. You can find an abbreviated version of this explanation in Kraus' _Antennas_.

A transmission line is similar to an antenna in only some respects, and assuming they act exactly the same leads to erroneous conclusions. Among the many mistakes made in recent postings is the assumption that a complete reflection takes place from the end of an antenna wire. As Schelkunoff, Kraus, and others explain, this isn't correct.

Roy Lewallen, W7EL

1920. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 23:06:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <5la6g.21438$4L1.16339@newssvr11.news.prodigy.com>
Source record: 60159

Roy Lewallen wrote:
> A transmission line is similar to an antenna in only some respects, and
> assuming they act exactly the same leads to erroneous conclusions.

A capacitor and resistor is similar to a stinger in only some
respects, and assuming they act exactly the same leads to
erroneous conclusions.
--
73, Cecil http://www.qsl.net/w5dxp

1921. Re: Can you put a ground plane 1/2 wave below the antenna to keep the clean pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 23:11:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125ie59o9r6apa7@corp.supernews.com>
Source record: 60160

You would have to create a ground plane that extends many wavelengths from your antenna. The multiple lobe pattern is produced by reflections from the ground which are far away -- the lower the angle, the farther from the antenna.

Why don't you just lower the antenna to 1/2 wavelength if that's the pattern you want? Then you'll have just the ground plane you need, the right height below the antenna -- the ground.

Roy Lewallen, W7EL

Harbin wrote:
> Howdy:
> When a 1/2 wave vertical is about 1/2 wave off the ground you get
> your best radiation pattern without extra lobes, but
> if you were to put it on a tower, several wavelengths high, you get
> multiple lobes. My question is how can you
> keep a clean radiation pattern when you are several wavelengths high
> with a 1/2 wave antenna? Can you put a ground
> plane 1/2 wave below the antenna to keep the clean pattern?
>
> --
> SeeYaa:) Harbin Osteen KG6URO

1922. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-03 23:47:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <n0fi52lceb6a5r3ronrvtjs7cirhscu5jv@4ax.com>
Source record: 60161

On Wed, 03 May 2006 15:55:23 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>This is the paper in which Schelkunoff develops his often-quoted
>approximate equations for antenna feedpoint impedance (the ones
>including sine and cosine integral -- Si and Ci -- terms). He says,
>basically, that an antenna acts like a transmission line -- a conical
>antenna like a constant-Z line and a cylindrical (e.g., wire or tubing)
>antenna like a variable-Z line -- *except at the ends*. At the ends,
>modes other than TEM are excited, resulting in radiation, modification
>of antenna impedance, and modification of current distribution.

Otherwise expressed as a finite Z instead of a zero current (infinite
Z) point at the end. Of course, finite and infinite are relative even
for Schelkunoff.

>The
>radiation, he says, can be modeled as either a terminating impedance or
>as a distributed impedance (R and L) along the line. You can find an
>abbreviated version of this explanation in Kraus' _Antennas_.

Hi All,

Pretty much what I've offered in the past and recently in this thread
(same source, Schelkunoff through Robert Collin). Anyway, I see no
formulas offered and as I don't have Kraus to see if they are missing
there too:
Zc = Z0 ï¿½ ln (cot (theta/2)) / pi
for
Z0 = 377 Ohms
theta > 5ï¿½
or
Zc = Z0 ï¿½ (ln(2) - ln(theta))) / pi
for
theta < 5ï¿½
where theta is the half angle of the cone section.

This, of course, says nothing of the variable Zc for a thick radiator
(which is not conical, but cylindrical). The "average" Zc:
Zc = 120 ï¿½ (ln (l/a) - 1)
for
l: length
a: diameter

The Zc as a function of position:
Zc(z) = 120 ln (2 ï¿½ z / a)

73's
Richard Clark, KB7QHC

1923. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 01:20:52 UTC
From: electro <electromagnetic377@yahoo.com>
Message-ID: <1146705652.635958.271770@v46g2000cwv.googlegroups.com>
Source record: 60162

typographical error.8dBm makes more sense...thanks

1924. how many receivers per antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 01:50:27 UTC
From: notyeti <notyeti.279joh@news.radiobanter.com>
Message-ID: <notyeti.279joh@news.radiobanter.com>
Source record: 60169

How can you arrange 16 receivers with an homebrew antenna system? I'd like to have three antennas or no more than four ideally. I'm not interested in direction finding, need low profile for neighborhood, and to work in the space uhf/vhf frequency range.

Is it really necessary to do much more than hook up the wires, or must they be electrically isolated somehow and therefore need a fancy design?

If it is easier than drawing diagrams, can you otherwise recommend a low profile space/sat antenna system that might function well with multiple receivers?

'notyeti'

--
notyeti

1925. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 02:10:50 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <ibKdnTP6DKQ1_8TZ4p2dnA@adelphia.com>
Source record: 60163

Dan Richardson wrote:
> On Tue, 02 May 2006 22:58:00 -0400, Mike Coslo
> <mremovethiscoslo@adelphia.net> wrote:
>
>
>>Anyone here have a good web reference on making a 4:1 balun? I'm looking
>>for the dual core design, not the single core design. Lots of those to
>>google.
>>
>> Do the single core designs really not work? I had a single core
>>homebrew that seemed to work, but I'm a tad confused after hearing that
>>they don't.
>>
>
> The Sept/Oct 2005 issue of QEX has a 4:1 balun design that may
> interest you. It can be found on the ARRL's members only web site.
>
> http://www.arrl.org/qex/2005/qx9roos.pdf

Thanks, Dan, I'm reading it now...

- 73 de Mike KB3EIA -

1926. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 02:27:11 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <ppadnQmhuvrg-8TZRVn-ug@adelphia.com>
Source record: 60164

Cecil Moore wrote:
> Mike Coslo wrote:
>
>> Do the single core designs really not work? I had a single core
>> homebrew that seemed to work, but I'm a tad confused after hearing
>> that they don't.
>
>
> The single core designs are usually voltage baluns and
> what we hams want are balanced currents. I don't see
> why you couldn't just add a husky 1:1 W2DU style choke
> on the 50 ohm side of your 4:1 voltage balun to inhibit
> common mode current. The extra toroid in the afore mentioned
> QEX article is a 1:1 choke attached to a 4:1 voltage balun.

I think you are right, Cecil. I'm digesting the pdf now. Probably take a few reads tho' it's been a long, long day....

- 73 de Mike KB3EIA -

1927. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 02:28:53 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <ppadnQihuvp_-8TZRVn-ug@adelphia.com>
Source record: 60165

glenn.b.dixon@gmail.com wrote:
> Here is what seems to be a nice link for the Guanella 2 core:
> http://www.njqrp.org/balun/Balun%20Manual%20-%20final.pdf
>
Aha! I knew there was one out there somewhere!

- 73 de Mike KB3EIA -

1928. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 02:34:28 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <pcmdnY5axvKv9cTZnZ2dnUVZ_uudnZ2d@adelphia.com>
Source record: 60166

Butch Magee wrote:
> Mike Coslo wrote:
>
>> Anyone here have a good web reference on making a 4:1 balun? I'm
>> looking for the dual core design, not the single core design. Lots of
>> those to google.
>>
>> Do the single core designs really not work? I had a single core
>> homebrew that seemed to work, but I'm a tad confused after hearing
>> that they don't.
>>
>> - 73 de Mike KB3EIA -
>>
>>
>
> Better, easier and probably cheaper to buy what you need from Buxcomm.com

I think you're right, Butch, but I *really* love making my own stuff. 8^)

- 73 de Mike KB3EIA -

1929. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 02:49:19 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <%Yd6g.71$Jw.47@fe12.lga>
Source record: 60167

"Dave" <W1MCE@comcast.net> wrote in message
news:bsSdnR44AsZmb8XZnZ2dnUVZ_tmdnZ2d@comcast.com...
>
> Under that definition my 8 foot high mobile antenna has a voltage maximum
> at the top and a current maximum at the base and must, therefore, be 90
> degrees long. But, it is physically only 16 degrees long [8/43.5 @ 5.37
> MHz]. Now it is 5 degrees long above the top of the coil and 10 degrees
> long below the coil ... ad nauseum [for another 2 months] ...
>
> Where is the other 74 degrees?? This is the question that started this 2
> month discussion.
>

Dave,
your 8 ft mobile antenna is not 90 degrees long, you don't have zero reactance at the feedpoint. You will have to insert the loading coil or matching network to do that and that adds the missing degrees. (You might have maximum current as far as the whip is concerned, but not maximum current corresponding to the base of resonated whip, just fraction corresponding what standing wave would supply for that tip o'antenna.)
Then you have drop of current along the coil, (missing degrees) and rest in the stinger at corresponding degreed to the straight radiator. (Worst efficiency of that length of antenna.).
As you start moving the loading coil up the antenna, you start increasing the high current in bottom part of antenna, then drop along the coil, then rest of the drop towards the stinger, down to zero. As you move coil higher, you will have to add the turns in order to maintain resonance (90 degrees overall, zero reactance at the feedpoint).
Looks like my idea about the role of impedance has some merit, Cecil is hitting it with idea of "losing" some degrees at the impedance "bumps" completing the picture of them mysteriously missing degrees, to dismay of same current believers. So looks like degrees of mast, plus degrees of impedance bump between the mast and coil, plus degrees of coil, plus degrees of impedance bump between the coil and stinger, plus degrees of stinger should add up to 90 degrees in resonant monopole or resonator, as some antenna pioneers called it. Do we get it now more precisely? Or there are still some "missing" degrees floating around?

73 Yuri, K3BU/m

1930. measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 02:54:21 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <-IKdnQYQp4968cTZRVn-iA@comcast.com>
Source record: 60168

All,

What is the best way to base impedance measurements, by voltage and current phase or by forward and reflected power?

First I assume both methods provide the data to measure impedance.

It would seem that both suffer from the real effects of the taking the measurement. Measuring voltage suffers from the effects of the reflected signal, I would assume current does as well. Couplers have a built in cross talk parameter.

Thanks,

- Dan

1931. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 03:11:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125is77pnh2atd9@corp.supernews.com>
Source record: 60170

dansawyeror wrote:
> All,
>
> What is the best way to base impedance measurements, by voltage and
> current phase or by forward and reflected power?

Measurement or calculation of forward and reverse power don't give you enough information to determine impedance. There are an infinite number of impedances which result in any given set of forward and reverse powers.

Likewise, voltage and current phase don't provide enough information. Again, there are an infinite number of impedances possible for any set of voltage and current phases.

> First I assume both methods provide the data to measure impedance.

No, neither one does. Among adequate sets of measurements which will allow you to determine impedance are both magnitude and phase of both voltage and current; or the ratio of voltage and current and the difference between their phase angles; or the magnitude and angle of the reflection coefficient.

> It would seem that both suffer from the real effects of the taking the
> measurement. Measuring voltage suffers from the effects of the reflected
> signal, I would assume current does as well. Couplers have a built in
> cross talk parameter.

It's much more difficult than most people realize to make accurate RF measurements. Any measurements have numerous potential sources of error. If you need accurate results, you should always measure a number of known impedances approximately equal to the measurement being questioned to verify that the system is sound. Measuring antennas brings the additional problems of coupling among the antenna, test equipment, and you; disturbances from other signals being received by the antenna; common mode currents; and properties of connecting feedlines.

Roy Lewallen, W7EL

1932. Re: Can you put a ground plane 1/2 wave below the antenna to keep the clean pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 03:15:11 UTC
From: Buck <not@this.time>
Message-ID: <jcsi52l8g39tutt7uierm8j3stn6uvnp3g@4ax.com>
Source record: 60171

On Wed, 3 May 2006 14:51:05 -0700, "Harbin" <harbinjr@adelphia.net>
wrote:

>Howdy:
> When a 1/2 wave vertical is about 1/2 wave off the ground you get your best radiation pattern without extra lobes, but
>if you were to put it on a tower, several wavelengths high, you get multiple lobes. My question is how can you
>keep a clean radiation pattern when you are several wavelengths high with a 1/2 wave antenna? Can you put a ground
>plane 1/2 wave below the antenna to keep the clean pattern?

create a half-wave dipole and mount it vertically.

buck
n4pgw

--
73 for now
Buck
N4PGW

1933. Re: Measuring quarter wave cable length with HP 8405A

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 03:46:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125iu83jl4b2f3f@corp.supernews.com>
Source record: 60172

Gary Schafer wrote:
> . . .
> The length of the 50 ohm line is 9 ï¿½" from shielded area to shielded
> area (not counting the center pin exposed when shell is pulled back).
> With the barrel installed it makes it 10 ï¿½" in length that is
> shielded.
> . . .

By my reckoning, a free space quarter wavelength at 145 MHz is 20.335 inches. Assuming solid polyethylene dielectric coax, this would be about 13.4 inches of coax. 10-3/4 inches would be about 72 degrees.

The probes have a shunt C of 2.5 pF, resulting in a Z (-X) of about 440 ohms at 145 MHz, not 100k ohms. If you parallel that with 50 ohms and terminate a 72 degree 50 ohm cable with it, the voltage delay in the cable is 78 degrees -- that is, the imperfect termination actually increases the cable delay by 6 degrees. If the cable Z0 is 45 ohms instead of 50, the delay is a couple of degrees less with that load; if it's 55 ohms, the delay is a couple of degrees more. Maybe your 50 ohm termination isn't quite what you think it is -- as you can see, it doesn't take much to substantially change the cable's delay.

As I've said often, most people don't realize how difficult it is to make accurate RF measurements.

Roy Lewallen, W7EL

1934. Re: Can you put a ground plane 1/2 wave below the antenna to keep the clean pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 08:04:07 UTC
From: nm5k@wt.net
Message-ID: <1146729847.875806.158790@u72g2000cwu.googlegroups.com>
Source record: 60173

Myself, I wouldn't worry about the pattern too much.
The higher antenna will still beat the lower one in most
cases despite the extra lobes at higher angles.
Of course, where you are talking will make a difference too.
But you do think a 1/2 wave at 4 waves up will lose to a
1/2 wave at a halfwave up to a ground/space wave contact 30 miles
away? "10 m as an example" Better think again...
The higher antenna will likely eat the lower one for lunch.
And we are talking pretty low angles involved.
Also, on the HF bands like 20m, a higher vertical will often "open
and close" the band earlier and later than the low antenna
when talking long haul dx. But not much difference on
medium or short paths. Yes, there are often higher angle
lobes involved on real high verticals, but if you think that
ruins them, you will be in for a surprise. If I were on 10m,
and had my pick of a 1/2 wave at 25 ft, or a 1/2 wave at
120 ft, I'd take the taller one any day of the week.
I wouldn't let knowledge of theory ruin a good thing. :/
MK

1935. Re: A little more on missing degrees

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 08:11:07 UTC
From: nm5k@wt.net
Message-ID: <1146730267.203891.107880@y43g2000cwc.googlegroups.com>
Source record: 60174

We haven't been missing any degrees around here.
We hit the low 90's , while even still in late April.
It's May now, and still no obvious loss of degrees.
Feels like summer, the grass is green, and I feel
quite warm most every day. It's those people up
far north that miss degrees. :)
MK

1936. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 08:18:13 UTC
From: nm5k@wt.net
Message-ID: <1146730693.889876.75440@j73g2000cwa.googlegroups.com>
Source record: 60175

>May 1st 2006, Civil War Begins ..

LOL, that'll be the day... is this related to "missing degrees" ?
I guess we missed the civil war down here in Texas. May 1
came and went, and I didn't notice anything irregular at all.
Nothing was hampered, and it is still quite warm here too..
MK

1937. FCC regulation on max. antenna tower height @ 2.4GHz ???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 10:15:37 UTC
From: electro <electromagnetic377@yahoo.com>
Message-ID: <1146737737.626050.144830@v46g2000cwv.googlegroups.com>
Source record: 59926

what is the maximum limit for antenna tower @ 2.4ghz ISM band?any link you know that leads to this regulation? or only the FAA authorizes such height regulations?

thanks

1938. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 12:44:25 UTC
From: Dan Richardson <>
Message-ID: <pltj52tnhn3slol67caiitf88v3ljvismh@4ax.com>
Source record: 59927

On Wed, 03 May 2006 13:22:45 GMT, Cecil Moore <mycall@hotmail.com>
wrote:
>
>The single core designs are usually voltage baluns and
>what we hams want are balanced currents. I don't see
>why you couldn't just add a husky 1:1 W2DU style choke
>on the 50 ohm side of your 4:1 voltage balun to inhibit
>common mode current. The extra toroid in the afore mentioned
>QEX article is a 1:1 choke attached to a 4:1 voltage balun.

Did you read the article Cecil? He place the current balun/choke on
the opposite side. Looked like an interesting approach.

Danny

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

1939. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 12:48:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <wKm6g.21766$4L1.13212@newssvr11.news.prodigy.com>
Source record: 59928

dansawyeror wrote:
> What is the best way to base impedance measurements, by voltage and
> current phase or by forward and reflected power?
> It would seem that both suffer from the real effects of the taking the
> measurement. Measuring voltage suffers from the effects of the reflected
> signal, I would assume current does as well. Couplers have a built in
> cross talk parameter.

If in a transmission line where the Z0 is known, either method
will give valid results within a certain accuracy. A bridge
circuit would probably yield the most accurate measurement.
--
73, Cecil http://www.qsl.net/w5dxp

1940. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 13:02:32 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <4459FB68.2080502@comcast.net>
Source record: 59929

Roy,

Thank you. Yes, I understood both magnitude and phase are required for both.

The question arose after looking into the block diagram of an HP 4805a Impedance Meter. It measures voltage and current as the basis for determining impedance.

My work with a vector voltmeter has been through using directional couplers and measuring forward and reflected power.

My question is: Is there an inherent accuracy benefit to one measurement basis over the other?

Or: Are current and voltage probes inherently easier to build and more accurate then directional couplers?

- Dan

Roy Lewallen wrote:
> dansawyeror wrote:
>
>> All,
>>
>> What is the best way to base impedance measurements, by voltage and
>> current phase or by forward and reflected power?
>
>
> Measurement or calculation of forward and reverse power don't give you
> enough information to determine impedance. There are an infinite number
> of impedances which result in any given set of forward and reverse powers.
>
> Likewise, voltage and current phase don't provide enough information.
> Again, there are an infinite number of impedances possible for any set
> of voltage and current phases.
>
>> First I assume both methods provide the data to measure impedance.
>
>
> No, neither one does. Among adequate sets of measurements which will
> allow you to determine impedance are both magnitude and phase of both
> voltage and current; or the ratio of voltage and current and the
> difference between their phase angles; or the magnitude and angle of the
> reflection coefficient.
>
>> It would seem that both suffer from the real effects of the taking the
>> measurement. Measuring voltage suffers from the effects of the

>> reflected signal, I would assume current does as well. Couplers have a
>> built in cross talk parameter.
>
>
> It's much more difficult than most people realize to make accurate RF
> measurements. Any measurements have numerous potential sources of error.
> If you need accurate results, you should always measure a number of
> known impedances approximately equal to the measurement being questioned
> to verify that the system is sound. Measuring antennas brings the
> additional problems of coupling among the antenna, test equipment, and
> you; disturbances from other signals being received by the antenna;
> common mode currents; and properties of connecting feedlines.
>
> Roy Lewallen, W7EL

1941. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 13:19:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Bbn6g.21771$4L1.20243@newssvr11.news.prodigy.com>
Source record: 59930

Dan Richardson wrote:
> Did you read the article Cecil? He place the current balun/choke on
> the opposite side. Looked like an interesting approach.

Yes, I'm wondering if things would change if the positions
were reversed? How does that choke perform when it sees
2000 + j1000 ohms?
--
73, Cecil http://www.qsl.net/w5dxp

1942. Re: FCC regulation on max. antenna tower height @ 2.4GHz ???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 13:21:05 UTC
From: gsm@mendelson.com
Message-ID: <slrne5jvej.5e6.gsm@cable.mendelson.com>
Source record: 59931

Allisonnospam@nouce.bellatlantic.net wrote:
> There may be other restrictions but not specific to only 2.4ghz ISM
> and local codes are more often an issue than federal codes.

It is also important to check the terms of your license. In the U.S. 2.4gHz is shared between amateur (Ham), ISM (industrial, scientific and medical) and unlicensed users. Each has it's own terms and conditions.

For example, the infamous Pringles can antenna was designed and used by an FBI agent in the course of an investigation. It may not have been legal for use by regular unlicensed WiFi users.

Geoff.
--
Geoffrey S. Mendelson, Jerusalem, Israel gsm@mendelson.com N3OWJ/4X1GM
IL Voice: (07)-7424-1667 IL Fax: 972-2-648-1443 U.S. Voice: 1-215-821-1838
Visit my 'blog at http://geoffstechno.livejournal.com/

1943. Re: how many receivers per antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 13:23:14 UTC
From: notyeti <notyeti.27ah0g@news.radiobanter.com>
Message-ID: <notyeti.27ah0g@news.radiobanter.com>
Source record: 59934

This is a health physics project. Everything is pointed up at one end
and a data logger at the other end. Basically everyday it just takes a
reading, or space weather ob, and I'm just a hobbyist more familiar with
the data logger and where to find local health stats. I guess it just
points up and has to keep track of space weather for the next forty
years. Any suggestions or links to or from real health physicists
would be wildly appreciated.

--
notyeti

1944. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 13:51:04 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <cFn6g.66394$_S7.21780@newssvr14.news.prodigy.com>
Source record: 59932

nm5k@wt.net wrote:

>>May 1st 2006, Civil War Begins ..
>
>
> LOL, that'll be the day... is this related to "missing degrees" ?
> I guess we missed the civil war down here in Texas. May 1
> came and went, and I didn't notice anything irregular at all.
> Nothing was hampered, and it is still quite warm here too..
> MK
>

Nothing happened here in California, either, except that a lot
of immigrants had a nice march and got to listen to some inspirational
speeches. Afterwords, they all went back to work.
73,
Tom Donaly, KA6RUH

1945. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 14:28:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <Y_ydnUPleeiojcfZRVnyiw@bt.com>
Source record: 59933

When it sees 2000 + j1000 ohms there's hardly any current to choke
anyway.

1946. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 15:33:59 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <H9p6g.11490$Lm5.4322@newssvr12.news.prodigy.com>
Source record: 59935

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:
> When it sees 2000 + j1000 ohms there's hardly any current to choke
> anyway.

Yes, but how much current is there 3/8WL back from that point?
--
73, Cecil, W5DXP

1947. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 15:46:25 UTC
From: Cliff Curry <cliffcurry_nospam_323@comcast.net>
Message-ID: <J_ydnTrb_ZJ-vMfZnZ2dnUVZ_sidnZ2d@comcast.com>
Source record: 59936

There is an Agilent app note about this... The short answer is: near z0 of your couplers, (50 ohms) use a network analyzer, at high or low impedances, use voltage and current.
regards,
Cliff

"dansawyeror" <dansawyeror@comcast.net> wrote in message news:-IKdnQYQp4968cTZRVn-iA@comcast.com...
> All,
>
> What is the best way to base impedance measurements, by voltage and
> current phase or by forward and reflected power?
>
> First I assume both methods provide the data to measure impedance.
>
> It would seem that both suffer from the real effects of the taking the
> measurement. Measuring voltage suffers from the effects of the reflected
> signal, I would assume current does as well. Couplers have a built in
> cross talk parameter.
>
> Thanks,
>
> - Dan

1948. Re: blame the posters not arrl

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 16:09:53 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1146758993.816910.317530@v46g2000cwv.googlegroups.com>
Source record: 59937
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On Mon, 01 May 2006 19:16:13 -0400, jawod <jawod@fuse.net> wrote:
>

> >Fred, let it go, man
>
> Since someone sane asked politely. No problem man. I'll be good for
> now.
>
>
> >Do YOU have anything related to ham radio to post?
>
> Maybe, but I am more of a reader than a writer.

and somone tick off that other s are not steping a fetching for him

1949. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 16:34:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <ip6dnVN5tLo9sMfZRVny1Q@bt.com>
Source record: 59938

"Cecil Moore" <mycall@arrl.net> wrote in message
news:H9p6g.11490$Lm5.4322@newssvr12.news.prodigy.com...
>
> "Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:
> > When it sees 2000 + j1000 ohms there's hardly any current to choke
> > anyway.
>
> Yes, but how much current is there 3/8WL back from that point?
> --
> 73, Cecil, W5DXP

Isn't that where you should be placing the choke? Give it some work
to do! Don't blame the choke for doing nothing. Blame yourself!

Reg.

1950. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 16:46:59 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <7eq6g.1670$fb2.1060@newssvr27.news.prodigy.net>
Source record: 59939

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:

> W5DXP wrote:
> > Yes, but how much current is there 3/8WL back from that point?

> Isn't that where you should be placing the choke?

Kinda hard to do if the feedline is ladder-line. Maybe a more
logical thing to do is to increase the length of the ladder-line until
a current maximum point is available at the coax/ladder-line
junction.
--
73, Cecil, W5DXP

1951. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 17:54:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0lfk529tqgporrm3ed8vvubllr6jb41hik@4ax.com>
Source record: 59940

On Thu, 04 May 2006 06:02:32 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>Or: Are current and voltage probes inherently easier to build and more accurate
> then directional couplers?

Hi Dan,

Probes have the benefit of being more sensitive, but you pay a price
in a far greater probablity of distorting the measurement. Unless, of
course, you are only looking for an indication which is qualitative
instead of quantitative.

Directional couplers are quite robust, accurate, and in my experience
I've never seen one that fell outside of its tolerance - except at the
band edges.

73's
Richard Clark, KB7QHC

1952. Re: Wire diameter vs Impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 18:31:36 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <cMr6g.81690$dW3.39419@newssvr21.news.prodigy.com>
Source record: 59941

"Roy Lewallen" <w7el@eznec.com> wrote:
> The
> radiation, he says, can be modeled as either a terminating impedance or
> as a distributed impedance (R and L) along the line. You can find an
> abbreviated version of this explanation in Kraus' _Antennas_.
>
> A transmission line is similar to an antenna in only some respects, and
> assuming they act exactly the same leads to erroneous conclusions. Among
> the many mistakes made in recent postings is the assumption that a
> complete reflection takes place from the end of an antenna wire. As
> Schelkunoff, Kraus, and others explain, this isn't correct.

What they seem to be saying is that a quarter-wave monopole
could be modeled like this:

======1/4WL 600 ohm line======12K load

The 12K load dissipates approximately the same amount
of power radiated by a 1/4WL monopole so the conditions
at the feedpoint will be similar to the 1/4WL monopole.

Just because it can be modeled in that fashion doesn't mean
that the radiation is from the same place as the 12k load.

This does seem to be a good way to understand the forward
and reflected waves occurring in a 1/4WL monopole. Guess
what the feedpoint impedance is?

Another way to model the antenna would be with resistance
wire instead of transmission line wire. Then we wouldn't need
the 12K load resistor. We could just specify 1 dB loss between
the forward power and reflected power.
--
73, Cecil, W5DXP

1953. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 18:49:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125kj69ov8qqfc4@corp.supernews.com>
Source record: 59942

Thanks for the clarification.

The HP4805a isn't an impedance meter. It's a vector voltmeter, which measures voltage amplitude and phase. As you know, it requires external directional couplers to measure impedance. (Or you could use current measurements using current probes in addition to the voltage measurements.)

When you use directional couplers with the vector voltmeter -- or with a network analyzer for that matter -- you're not measuring forward and reflected power. You're measuring forward and reflected voltage. As I mentioned in my last posting, power measurement doesn't give you enough information to determine impedance.

The answer to your question is that you can't measure impedance at all using only the voltage probes of the 4805a, and you can't measure it at all by measuring forward and reverse power with directional couplers. If you want to compare using voltage *and current* probes with measuring forward and reverse *voltages* with directional couplers, the former is probably better when impedances are considerably different than 50 ohms resistive, the latter better in a near 50 ohm system. Making accurate measurements with either method is much more difficult than most people realize, and it helps to have an understanding of what you're actually measuring. Both methods have numerous sources of possible error which have to be understood and controlled.

Roy Lewallen, W7EL

Network

dansawyeror wrote:
> Roy,
>
> Thank you. Yes, I understood both magnitude and phase are required for
> both.
>
> The question arose after looking into the block diagram of an HP 4805a
> Impedance Meter. It measures voltage and current as the basis for
> determining impedance.
>
> My work with a vector voltmeter has been through using directional
> couplers and measuring forward and reflected power.
>
> My question is: Is there an inherent accuracy benefit to one measurement
> basis over the other?
>
> Or: Are current and voltage probes inherently easier to build and more

> accurate then directional couplers?
>
> - Dan
>
>
> Roy Lewallen wrote:
>> dansawyeror wrote:
>>
>>> All,
>>>
>>> What is the best way to base impedance measurements, by voltage and
>>> current phase or by forward and reflected power?
>>
>>
>> Measurement or calculation of forward and reverse power don't give you
>> enough information to determine impedance. There are an infinite
>> number of impedances which result in any given set of forward and
>> reverse powers.
>>
>> Likewise, voltage and current phase don't provide enough information.
>> Again, there are an infinite number of impedances possible for any set
>> of voltage and current phases.
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>>> First I assume both methods provide the data to measure impedance.
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>>
>> No, neither one does. Among adequate sets of measurements which will
>> allow you to determine impedance are both magnitude and phase of both
>> voltage and current; or the ratio of voltage and current and the
>> difference between their phase angles; or the magnitude and angle of
>> the reflection coefficient.
>>
>>> It would seem that both suffer from the real effects of the taking
>>> the measurement. Measuring voltage suffers from the effects of the
>>> reflected signal, I would assume current does as well. Couplers have
>>> a built in cross talk parameter.
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>> It's much more difficult than most people realize to make accurate RF
>> measurements. Any measurements have numerous potential sources of
>> error. If you need accurate results, you should always measure a
>> number of known impedances approximately equal to the measurement
>> being questioned to verify that the system is sound. Measuring
>> antennas brings the additional problems of coupling among the antenna,
>> test equipment, and you; disturbances from other signals being
>> received by the antenna; common mode currents; and properties of
>> connecting feedlines.
>>
>> Roy Lewallen, W7EL

1954. Re: how many receivers per antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 19:28:21 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146770901.422044.189620@y43g2000cwc.googlegroups.com>
Source record: 59943

I have no idea how your second post in this thread relates to your first one, but...

If you want any sort of sensitivity for 16 receivers tied to the same antenna, especially in the UHF range (where even with a single receiver, the receiver noise is likely going to dominate over the noise the antenna picks up), you should put a decent preamp on the antenna. The power from the antenna, best case, will divide among the receivers. In the real world, you'll loose some additional power in the system you use to split the power among the receivers. Just tying them all together is about worst case. It would be reasonable to look for a preamp with perhaps 15dB gain, and in fact you could find a distribution preamp that will divide the signal for you and give you more-or-less isolated outputs. One way they do it is to have an input amplifier, say a 4-way splitter, and then another amplifier on each of those splitter outputs, each of those driving another 4-way splitter. That generally gives better performance with respect to distortion and noise.

If you're only dealing with large signals, you could try just a simple splitter arrangement, but don't expect good sensitivity in the recievers.

Cheers,
Tom

1955. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 19:46:44 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146772004.420613.150730@i39g2000cwa.googlegroups.com>
Source record: 59944

I'm going to take slight issue with what Roy wrote about measurement using a directional coupler. Though it's true that the receivers could be considered to be measuring voltage, they are measuring it across a well known load (very close to 50 ohms). When we set up a system to test the performance of units we build, it's done very carefully to calibrate them for input _power_, not voltage. The usual directional coupler in a VNA is indeed a resistive bridge, with some care taken to make the known legs and the source driving it and the load observing the imbalance all 50 ohms (in a 50 ohm system). Generally a bridge whose impedance is near the impedance you want to measure is a good choice for a starting point for making accurate measurements, but it's for sure not easy to build a 10k ohm bridge at 10GHz, for example...

I certainly agree with Roy that an understanding of the measurement system and the error sources is critical to getting consistently good measurements. In fact, I have several old ap notes from HP about such measurements; those ap notes may still be available through the Agilent web site, but I couldn't guarantee it. NIST (the US National Institute of Standards and Technology) has done a lot of work in characterizing errors in measurement, and they are also a source of good (but usually mathematically deeper) info. Rohde und Schwarz is another source of VNA and impedance measurement ap notes. It's such a complex subject that I really wouldn't want to even try to get into it here. And why, since it's already been dealt with nicely in freely available pubs?

Cheers,
Tom

1956. Re: spectral power density

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 19:57:07 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146772627.826768.295420@y43g2000cwc.googlegroups.com>
Source record: 59945

If your modulation spreads the power evenly over 500kHz, if I understand the rules right, you can transmit 1 watt. If your modulation spreads the power evenly over 50kHz, you could transmit 0.1 watts (+20dBm). If your modulation spreads the power evenly over 5kHz, you could transmit 0.01 watts (+10dBm). It _appears_ that you could transmit +8dBm (6.something milliwatts) however you want in that band: as an unmodulated carrier, or spread however you want. I don't suppose they talk about the time period over which you measure the spectral power density...but they probably wouldn't like it if you transmitte 1 watt that swept linearly and slowly across the 500kHz, say once a minute. Over a long enough period, that would be uniform power per unit bandwidth, but a one second snapshot would show 1 watt in 500kHz/60 = 8.3kHz bandwidth.

Hope that makes sense. Beyond that--see your lawyer! ;-)

Cheers,
Tom

1957. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 20:38:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125kpj35t23d0e5@corp.supernews.com>
Source record: 59946

I gladly defer to Tom, who has a great deal more experience with and knowledge of measurement devices and techniques than I. My point was that you need to know magnitude and phase of the measured quantity if you're going to determine impedance. If all you were measuring was power, you wouldn't have this information. So you must measure the voltage (or current).

Roy Lewallen, W7EL

K7ITM wrote:
> I'm going to take slight issue with what Roy wrote about measurement
> using a directional coupler. Though it's true that the receivers could
> be considered to be measuring voltage, they are measuring it across a
> well known load (very close to 50 ohms). When we set up a system to
> test the performance of units we build, it's done very carefully to
> calibrate them for input _power_, not voltage. The usual directional
> coupler in a VNA is indeed a resistive bridge, with some care taken to
> make the known legs and the source driving it and the load observing
> the imbalance all 50 ohms (in a 50 ohm system). Generally a bridge
> whose impedance is near the impedance you want to measure is a good
> choice for a starting point for making accurate measurements, but it's
> for sure not easy to build a 10k ohm bridge at 10GHz, for example...
> . . .

1958. Re: Plastic Antenna Insulators

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 21:00:46 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e3dq25$1m38$1@f04n12.cac.psu.edu>
Source record: 59947

Dave Heil wrote:
> Mike Coslo wrote:
>> Dave Heil wrote:
>>> Highland Ham wrote:
>>> ========================
>>>
>>>> To be UV resistant the plastic should be black ,eg it contains
>>>> carbon black (like soot) If ,in general, plastic material is
>>>> exposed to sun light it deteriorates over time (especially when
>>>> pigments are involved).
>>>> Example: coloured polypropylene rope .
>>>> If that material would be black ,it would have a very long life.
>>>> But then the sales of this material would decline ;)), hence you
>>>> only find coloured polypropylene rope ,blue ,orange ,red , yellow
>>>> ,etc ,at least in the UK.
>>>>
>>>> Here in the north of Scotland (no sun in abundance) I use
>>>> (blue)polypropylene guys on a 13m (40ft)mast ,which have to be
>>>> replaced every 7 -8 years .But it is cheap.
>>>
>>>
>>> I question that 7-8 year figure. Some Finnish friends put up a
>>> "temporary" tower with a tribander at the OH0Z site in the 1990s.
>>> They used new polypropylene ski rope. I went out one weekend and
>>> there lay the tower and tribander, victims of a guy rope failure.
>>> I'd NEVER use the stuff for guying or antenna supports.
>>
>>
>> I've not found the polyester stuff to be very good either. I
>> wonder if that stuff lasting for 7 years might be something else?
>
> Polyester or polypropylene? The polyester is pretty good even without
> the black UV resistant layer. Polypropylene frizzes, fades and gets
> weak very, very quickly.
>
>>>> Polyester rope as used on sailing boats is UV resistant (even
>>>> without carbon black) and would last 30+ years ,but it is relatively
>>>> expensive.
>>>
>>>
>>> Polyester is excellent material. There is a polyester rope sold
>>> under the "Synthetic Textiles" name here in the U.S. which is simply
>>> great.
>>> It is braided, not twisted. The inner core is white. There is an

>>> outer braid which is black. I have some which is fourteen years
>>> old. It is still strong and flexible.

I've seen it. I might just pt my next antenna up with it.

>> Does it have much stretch? I'm looking for something new after
>> replacing my dipole the third time since January.....
>
> One of the very good things about polyester rope is that it doesn't
> stretch much at all--let's say, compared to nylon rope which stretches a
> great deal.

Where I am at, we get some pretty strong and gusty winds the past few
years. The trees can get whipping in different directions fairly often.
My old nylon string would stretch, and could even
support my weight (don't ask how I know that) My thoughts are that iff I
put up something that doesn't have a little give, the stress is just
going to transfer from the line to the antenna. At that point I'd start
breaking the antenna.

> Where is your rope breaking and what is it attached to? I use plain old
> nylon 1/4" rope to support the end of my inverted L for 160m. The far
> end runs though a nylon pulley attached to another rope up in a maple
> tree. The rope attached to the antenna runs down the tree and is
> attached to an old window sash weight. The weight is free to bob up and
> down with the swaying of the tree. That keeps the rope and antenna wire
> from breaking.

Nothing so complex. I have some line running through a grook in the
limbs. The failure point for the old stuff I was using was at the rub
point. Now it seems almost random. Your method would probably be a lot
better for me to use.

>>>> Plastic antenna insulators (sold in the UK) are usually black , so
>>>> are the outdoor balun enclosures and plastic insulators on Yagi
>>>> antennes.
>>>
>>>
>>> We're now seeing some white plastic insulators here. I tried some in
>>> the sun of Africa. They looked like they were pitted and
>>> deteriorating after three years in the sun of Botswana. I either use
>>> ceramics or make my own out of 1/2" thick clear plexiglass sheet or
>>> 3/4" plexi rod. That yellows but doesn't otherwise seem to deteriorate.
>>
>>
>> I've been using black plastic eggs sold for electric fencing apps.
>> They've worked well for about 5 years now.
>
> They're likely a little short for high power, Mike. You might consider
> using a couple of them at each end with a short piece of nylon rope in
> between them. I use the black plastic "nail-on" fence insulators for
> running a beverage antenna down a tree line. They are cheap and they

> work well. The have a snap-in retainer so they're easy to re-use if the
> aluminum fence wire I'm using should ever break.
>
> I use those Hy-Gain center insulators made of black plastic with rubber
> membrane and stainless screws and nuts. They never seem to fail and
> certainly keep water out of the coaxial cable. Ten-Tec is making their
> little Acro-Bat center insulator. It is good for 300 ohm window line
> and RG-58 but they don't make a model for RG-213-sized cable.

Once again, sounds like a setup I might want to emulate.

Thanks, Dave.

- 73 de Mike KB3EIA -

1959. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 21:19:25 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <vark5258q9scr3642tl7cc13tmuuavp6u8@4ax.com>
Source record: 59948

On Thu, 04 May 2006 11:49:37 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Thanks for the clarification.
>
>The HP4805a isn't an impedance meter. It's a vector voltmeter, which
>measures voltage amplitude and phase. As you know, it requires external
>directional couplers to measure impedance. (Or you could use current
>measurements using current probes in addition to the voltage measurements.)

Whoa, hold on, wait a minute or as we are now required to say in
Southern Arizona, Alto Amigo!

I think that Dan made a typo and meant to say "HP-8415", which is a
vector impedance meter that does use a constant current r-f source and
a voltage measurement to determine impedance.

It's a handy instrument for probing circuits, but it has a limited
higher frequency limit of 108 MHz.

There is one here:

http://cgi.ebay.com/HP-4815A-RF-VECTOR-IMPEDANCE-METER-500KHZ-TO-108MHZ_W0QQitemZ7609873605QQcategoryZ25421QQcmdZViewItem

but without the probe, which makes it totally useless.

[snip]

1960. Re: NewB: antenna and ADC howto

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 21:39:47 UTC
From: XaNder <xanTOGLIder.001@vodafone.it>
Message-ID: <Dwu6g.1266$cB3.690@tornado.fastwebnet.it>
Source record: 59949

First of all thanks for your answer.

K7ITM wrote:
> The antenna you pick should depend on just what you are trying to
> receive. Could you give us any more info?

I have to be able to read an UHF signal produced by an ISO-18000/6 (not B version) RFID reader/tag signal. I first thought to directly use the tag's antenna itself but have no idea of how to connect it to a sampler. Plus it uses backscatter asa means of communication and don't know how this influences any signal at the end of the antenna.

> As for digitizing the signal, yes, you can actually buy receivers with
> digital output, though good ones tend to be expensive.

Well, we are a research lab. Sooner or later I think we'll get our hands on something if it's actually usefull and we ask for it. Nevertheless it has to be as cheap as suitable.
--Inline Edit--: I have to ask our providers if they have any passive reader they won't miss ;-) .

> If you want
> very broadband digitization, you can get ADCs that sample at 10^9
> samples/second and above, but only to about 8 bits of resolution, and
> accuracy even less than that. If you want to digitize only a
> relatively narrow band, you can use analog techniques to convert the
> signal to a lower frequency, or you can use an ADC that is capable of
> "undersampling" -- accurately sampling a signal at a frequency above
> half its sampling frequency. In either case, you need filters to
> insure that the band of frequencies you let through doesn't cause
> "aliasing".
> (You should be able to find plenty on that with a web search.)
Thanks, I'll go and search as I don't remember very well. The band is as narrow as 70MHz if I'm not mistaking. Take a look at

http://zone.ni.com/devzone/conceptd.nsf/webmain/1622E8ED427AA28C8625714D0067926D

As I told you I'm a total noob and I don't even know if there's only a channel or more (though I think there's only 1)

> Anyway, there are some key questions: what signals do you
> want to receive, and what bandwidth do you want to digitize?

Well, there are lots of RFID protocols out there, but as this is our first test I think we should do simple things. That's why I chose this protocol (it should be simple (yet very complicated for me!) compared to the ISO 18000/6B).Do you think this should be easier in HF (125/130kHz) or VHF

(13.56MHz) domain (we have any kind of readers:-).

> Do you
> want to be able to adjust the center frequency of the band you
> digitize, or will it be fixed? What dynamic range do you need? What
> amount of noise in the receiver can you tolerate?

I'm not really a guru of telecom. The only thing I can say is that the S/N ratio is *probably* no problem to me ... just get the reciever closer to the emitter and I *think* it would be ok. Correct me if I say any nonsense.

> Without answers to
> these basic questions and some others, you probably won't get the
> results you seek. On the back end, another question is, what will you
> do with the data? Can you record it or process it real-time without
> choking on it?

No real-time processing. At least for now and a good deal of time from now. I first have to understand how this works. Plus once it's sampled I can do all the tests I need to.

> And finally, are you looking to buy a system, or build
> one, or some combination?

It depends on how much time would cost (or how much money...).

Cheers and thanks again,
Alexander

1961. Re: Can you put a ground plane 1/2 wave below the antenna to keep the clean pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 23:44:54 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <0M-dna73EqdzDMfZRVn-qA@adelphia.com>
Source record: 59950

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:125ie59o9r6apa7@corp.supernews.com...
> You would have to create a ground plane that extends many wavelengths from your antenna. The multiple lobe pattern is produced by
> reflections from the ground which are far away -- the lower the angle, the farther from the antenna.
>
> Why don't you just lower the antenna to 1/2 wavelength if that's the pattern you want? Then you'll have just the ground plane you
> need, the right height below the antenna -- the ground.
>
> Roy Lewallen, W7EL

Hi Roy:
With 10 meters and above, the higher you have your antenna, the better
the local reception. I like to get above the power lines.

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv
http://media.putfile.com/La-Gran-Marcha
The Mexican Solution:
http://www.centerforsecuritypolicy.org/index.jsp?section=papers&code=06-D_18

-

1962. Re: Can you put a ground plane 1/2 wave below the antenna to keep the clean pattern?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-04 23:58:22 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <LtudnYkq-vaLCMfZnZ2dnUVZ_vSdnZ2d@adelphia.com>
Source record: 59951

-
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:125ie59o9r6apa7@corp.supernews.com...
> You would have to create a ground plane that extends many wavelengths from your antenna. The multiple lobe pattern is produced by
> reflections from the ground which are far away -- the lower the angle, the farther from the antenna.
>

Ok..... this is a problem.
--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv
http://media.putfile.com/La-Gran-Marcha
The Mexican Solution:
http://www.centerforsecuritypolicy.org/index.jsp?section=papers&code=06-D_18

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1963. Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 00:15:41 UTC
From: Silent Key <cw.h@m.bands>
Message-ID: <NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net>
Source record: 59952
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

What's the purpose of ham radio, To have fun talking about rigs and weather, or to be able to communicate?

To be able to communicate when no one else can communicate and to advance radio knowledge & theory?

What does part 97 say about this? Why does the ARRL ignore it?

When CW is lost, new hams will be just like CB'ers and SWL's, or some other lower life form of radio hobbiest. You name it.

SC

1964. J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 00:20:24 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <d92dnVBi_rDdB8fZRVn-hA@adelphia.com>
Source record: 59953

Howdy:
In a j-pole the 1/4 wave element, and the bottom 1/4 of the 3/4
element should act as a transmission line, right? So... shouldn't these
elements be as very close to each other to cancel one another out, closer
than what I see on most j-poles? Or is this space have something to do
with the impedance of the antenna?

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv
http://media.putfile.com/La-Gran-Marcha
The Mexican Solution:
http://www.centerforsecuritypolicy.org/index.jsp?section=papers&code=06-D_18

-

1965. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 00:37:14 UTC
From: Dan Richardson <>
Message-ID: <pc7l52duc4epc4lmeq7u9n8qg4mkshr7nu@4ax.com>
Source record: 59954

On Thu, 4 May 2006 17:20:24 -0700, "Harbin" <harbinjr@adelphia.net>
wrote:

>Howdy:
> In a j-pole the 1/4 wave element, and the bottom 1/4 of the 3/4
>element should act as a transmission line, right? So... shouldn't these
>elements be as very close to each other to cancel one another out, closer
>than what I see on most j-poles? Or is this space have something to do
>with the impedance of the antenna?

Remember you are using wavelengths as your measurement. On 160-meters
6-foot separation would be okay.

Danny

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

1966. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 01:46:26 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146793585.966834.111400@i39g2000cwa.googlegroups.com>
Source record: 59955

It must have been something in the way that Roy worded it the first time, but with that concise rewording, I absolutely agree! You gotta measure phase as well as amplitude if you want to determine a complex impedance. In no way should my previous post in this thread be interpreted as going against that.

Cheers,
Tom

1967. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 01:53:07 UTC
From: Steve <zarco@sonic.net>
Message-ID: <445ab003$0$65441$742ec2ed@news.sonic.net>
Source record: 59956
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Will the CW only portions of the lowbands be
retained, or will those go away as well?

Steve

"Silent Key" <cw.h@m.bands> wrote in message
news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
> What's the purpose of ham radio, To have fun talking about rigs and
> weather, or to be able to communicate?
>
> To be able to communicate when no one else can communicate and to advance
> radio knowledge & theory?
>
> What does part 97 say about this? Why does the ARRL ignore it?
>
> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> other lower life form of radio hobbiest. You name it.
>
> SC

1968. Re: Measuring quarter wave cable length with HP 8405A

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 02:11:05 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <t0dl525mf8l9udragg8afrirrtejrcie3p@4ax.com>
Source record: 59957

On Wed, 03 May 2006 20:46:06 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Gary Schafer wrote:
>> . . .
>> The length of the 50 ohm line is 9 ï¿½" from shielded area to shielded
>> area (not counting the center pin exposed when shell is pulled back).
>> With the barrel installed it makes it 10 ï¿½" in length that is
>> shielded.
>> . . .
>
>By my reckoning, a free space quarter wavelength at 145 MHz is 20.335
>inches. Assuming solid polyethylene dielectric coax, this would be about
>13.4 inches of coax. 10-3/4 inches would be about 72 degrees.
>
>The probes have a shunt C of 2.5 pF, resulting in a Z (-X) of about 440
>ohms at 145 MHz, not 100k ohms. If you parallel that with 50 ohms and
>terminate a 72 degree 50 ohm cable with it, the voltage delay in the
>cable is 78 degrees -- that is, the imperfect termination actually
>increases the cable delay by 6 degrees. If the cable Z0 is 45 ohms
>instead of 50, the delay is a couple of degrees less with that load; if
>it's 55 ohms, the delay is a couple of degrees more. Maybe your 50 ohm
>termination isn't quite what you think it is -- as you can see, it
>doesn't take much to substantially change the cable's delay.
>
>As I've said often, most people don't realize how difficult it is to
>make accurate RF measurements.
>
>Roy Lewallen, W7EL

Measuring RF is difficult! I can't seem to get any two methods to come
out in the same ball park.

If I just have the two 75 ohm lines hooked up with 50 ohm terminations
on the ends and measure with the probes I get 0 degrees phase.

I can hook one of the 75 ohm lines only with a 100 ohm load and one
probe at the generator end and a 50 ohm load at the other end with a
probe and see near 90 degrees.

I can do the same with the 50 ohm line with a 50 ohm load on each end
and see near 90 degrees.

But when I have the two 75 ohm lines and add the 50 ohm line in one
leg I get only around 60 degrees. By pulling the probe of the
connector (B channel) at the end of the 50 ohm line, and keeping the

center pin close but not in contact so there is only light capacitive coupling the phase shift increases by around 10 degrees or so.

If I add a few elbow adaptors to the 50 ohm line to increase its length to arund14 ï¿½" inches or so then I see close to 90 degrees.

So it would seem that my 50 ohm line is too short but when measuring it without the 75 ohm lines it looks to be the right length.

I built a couple of different 90 degree phasing setups several years ago using two 75 ohm ï¿½ wave length lines, a spdt relay and a 90 ohm ï¿½ wave length line all hooked to the relay to be able to reverse polarization.
I measured that setup in a similar manor only the center of the relay went to the signal generator and the 50 ohm loads and probes went at the ends of the 75 ohm lines. I get 60 degrees of phase shift on that setup too.

I don't remember how I trimmed the 90 ohm line at the time but I do remember I tried several different methods to try and measure what was happening and had the same problems I am having now. I didn't have the 8405A then.
It seems I am doing no better with it. :>)

I would like to find a repeatable method that will work when adding a relay and or connectors to be able to know pretty close what the actual delay is.

Thanks for the help.

Gary K4FMX

1969. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 02:23:51 UTC
From: Buck <not@this.time>
Message-ID: <5odl52ppqbradod45gk5fa43boanohbffu@4ax.com>
Source record: 59958
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On Fri, 05 May 2006 00:15:41 GMT, Silent Key <cw.h@m.bands> wrote:

>What's the purpose of ham radio, To have fun talking about rigs and
>weather, or to be able to communicate?
>
>To be able to communicate when no one else can communicate and to advance
>radio knowledge & theory?
>
>What does part 97 say about this? Why does the ARRL ignore it?
>
>When CW is lost, new hams will be just like CB'ers and SWL's, or some
>other lower life form of radio hobbiest. You name it.
>
>SC

TROLL!

CW isn't going away. It just won't be a requirement for a license.
RTTY hasn't died either.
--
73 for now
Buck
N4PGW

1970. Re: how many receivers per antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 02:34:35 UTC
From: notyeti <notyeti.27becj@news.radiobanter.com>
Message-ID: <notyeti.27becj@news.radiobanter.com>
Source record: 59959

Thanks Tom,

I do have almost as many splitters and amps as receivers. You call them scanner receivers, but since some of them are computer controlled, they ultimately are good for all kinds of natural sampling experiments. So as you suggest, I'll start with the most simple arrangement and work backward until the receivers start to work well per experiment. I have done electronics, device, and ac/dc circuit analysis before, but nothing in radio frequency space. I knew there was a plan! Thanks Tom.

I worked with nws/asos equipment once and so want to build a hobby "instrument" that could record anything, space weather wise, in the radio frequency realm, that might -or not- wash over the city and trigger health problems. It would systematically record as "large a signal" then as regular weather observations detect with traditional instruments and from a fixed position.

A big smile,
notyeti

--
notyeti

1971. Re: how many receivers per antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 03:43:08 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <hRz6g.8328$QP4.991@fed1read12>
Source record: 59960

"notyeti" <notyeti.279joh@news.radiobanter.com> wrote in message
news:notyeti.279joh@news.radiobanter.com...
>
> How can you arrange 16 receivers with an homebrew antenna system? I'd
> like to have three antennas or no more than four ideally. I'm not
> interested in direction finding, need low profile for neighborhood, and
> to work in the space uhf/vhf frequency range.
>
> Is it really necessary to do much more than hook up the wires, or must
> they be electrically isolated somehow and therefore need a fancy
> design?
>
> If it is easier than drawing diagrams, can you otherwise recommend a
> low profile space/sat antenna system that might function well with
> multiple receivers?

Yes, they absolutely must be isolated or you upset the impedance of the system. Isolation is done with splitters or directional coupler taps. T-connectors are often a problem, as they tend to encourage reflections in the cables.

I presume that you have a low-noise amp at the antenna that sets the noise figure for the system. Thus, all you have is a divider problem and many, many amplifier/splitters that are flat from 50 - 1000 MHz are available for home and small apartment TV systems. If you need to get into L-band, there are booster amps for SAT-TV that do well from 950-2250 MHz.

I googled for 8 way splitter amplifier low noise TV and got this among the thousands:

http://www.smarthome.com/7750-8.html

not saying it's the best ... it's just one of the many.

Good luck.

1972. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 03:51:52 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <sZz6g.44343$C63.29080@trnddc06>
Source record: 59961

Wes Stewart wrote:
> On Thu, 04 May 2006 11:49:37 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>
>>Thanks for the clarification.
>>
>>The HP4805a isn't an impedance meter. It's a vector voltmeter, which
>>measures voltage amplitude and phase. As you know, it requires external
>>directional couplers to measure impedance. (Or you could use current
>>measurements using current probes in addition to the voltage measurements.)
>
>
> Whoa, hold on, wait a minute or as we are now required to say in
> Southern Arizona, Alto Amigo!
>
> I think that Dan made a typo and meant to say "HP-8415", which is a
> vector impedance meter that does use a constant current r-f source and
> a voltage measurement to determine impedance.
>
> It's a handy instrument for probing circuits, but it has a limited
> higher frequency limit of 108 MHz.
>
> There is one here:
>
> http://cgi.ebay.com/HP-4815A-RF-VECTOR-IMPEDANCE-METER-500KHZ-TO-108MHZ_W0QQitemZ7609873
605QQcategoryZ25421QQcmdZViewItem
>
> but without the probe, which makes it totally useless.
>
> [snip]

I think the OP really means 8405 which is a VVM. I think he swapped the
first two numbers.

He can tell us if I'm wrong.

Cheers,
John

1973. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 04:26:37 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <2uA6g.8331$QP4.4556@fed1read12>
Source record: 59962
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Silent Key" <cw.h@m.bands> wrote in message
news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
> What's the purpose of ham radio, To have fun talking about rigs and
> weather, or to be able to communicate?
>
> To be able to communicate when no one else can communicate and to advance
> radio knowledge & theory?
>
> What does part 97 say about this? Why does the ARRL ignore it?
>
> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> other lower life form of radio hobbiest. You name it.
>
> SC

I should be able to keep this from getting to me, but sometimes I just feel like responding to the attempted intimidation by these elitists.

Mate, your key is only silent from the neck, up.

Due to dyslexia, I am unable to learn much Morse Code. I can consistently recognize about half of the alphabet and none of the numbers. Morse Code might as well be edoC esroM for all the good it will ever do me.

In spite of this, I manage to be a responsible member of the ham radio community and I'm damn proud of my service to RACES, to my club as its treasurer and to the county as a volunteer communicator. My UHF/VHF points in last year's Field Day exceeded the points of our HF stations combined. Lower life form, indeed! The nerve of you!

You may get down off your high horse (or should it be "High Morse"?) and apologize for all those jabs any old time it pleases you. I'll be here.

1974. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 04:32:36 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <FzA6g.8332$QP4.32@fed1read12>
Source record: 59963

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:cFn6g.66394$_S7.21780@newssvr14.news.prodigy.com...
> nm5k@wt.net wrote:
>
> >>May 1st 2006, Civil War Begins ..
> >
> >
> > LOL, that'll be the day... is this related to "missing degrees" ?
> > I guess we missed the civil war down here in Texas. May 1
> > came and went, and I didn't notice anything irregular at all.
> > Nothing was hampered, and it is still quite warm here too..
> > MK
> >
>
> Nothing happened here in California, either, except that a lot
> of immigrants had a nice march and got to listen to some inspirational
> speeches. Afterwords, they all went back to work.
> 73,
> Tom Donaly, KA6RUH

I got a seat on the train going both ways on Monday -- quite a rarity.
They can take the whole month off.

Heard a good one on Monday: The illegals telling us to revise our laws is
like a burglar telling you to rearrange your furniture.

1975. Re: RF/microwaves over Fiberoptic cable???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 05:36:44 UTC
From: Rossi <msrossi1@gmail.com>
Message-ID: <1146807404.499625.113840@u72g2000cwu.googlegroups.com>
Source record: 59964

Howdy!

A few comments on fiber:

1 - we cannot confuse bandwidth (MHz) with bitrate (Mbps or Gbps). Two different monsters. Currently CATV uses fiber optics to transmit TV signals over RF, also called analogue video. You will need, of course, a transceiver on both ends, which will be powered by electricity that will then "power" an antenna. That would be an awesome solution (if economically feasible for HAMs) in places with lots of lightning storms (e.g. Florida). If a lightning hits an antenna the only things fried would be the antenna itself and the transceiver. Since fiber is dielectric (assuming the use of an all-dielectric cable also) the radio would be fine if not surge came through the power line. Fiber optics can have (depending on the type) TeraHertz in terms of bandwidth and transmit TeraBits of information per second using techniques such as Dense Wavelength Division Multiplexing, which is simply sending multiple colors (or wavelengths) through it.

2 - tapping into fiber. Not so easy as mentioned above. Transmitters can be equipped with optical power variation detection and the system themselves can also detect variation in the BER (bit error rate) that would raise if someone tries to tap into fiber. Those two controls make fiber virtually impossible to undetected tapping. "Shaving" fiber by eroding its coating will only make the intrusion even more noticeable since there will be a big optical power loss in a certain point of the link. That point can be precisely detected within a few feet range by using an OTDR (optical time domain reflectometer) that can locate the failure in seconds and, depending on security level of the link, let the security personell take "appropriate care" of the "spy". So, do not try this at home.

It is easier to hack into someone's network via computer code than via the optical physical medium.

Cheers!

1976. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 06:36:46 UTC
From: Brenda Ann <brendad@shinbiro.com>
Message-ID: <e3ermq$550$1@news2.kornet.net>
Source record: 59965
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Silent Key" <cw.h@m.bands> wrote in message
news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
> What's the purpose of ham radio, To have fun talking about rigs and
> weather, or to be able to communicate?
>
> To be able to communicate when no one else can communicate and to advance
> radio knowledge & theory?
>
> What does part 97 say about this? Why does the ARRL ignore it?
>
> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> other lower life form of radio hobbiest. You name it.
>
> SC

Here's one that I haven't even seen:

Not everyone speaks readable English, but anyone that knows Morse can copy
any language and read it at their leisure. Also, those who don't speak
English well can often spell the words well enough to read...

Just a thought.

1977. Re: measuring impedance - I and V phase, or forward and reflected signal

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 09:14:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125m5ra7c46m9d5@corp.supernews.com>
Source record: 59966

John - KD5YI wrote:
> Wes Stewart wrote:
>> On Thu, 04 May 2006 11:49:37 -0700, Roy Lewallen <w7el@eznec.com>
>> wrote:
>>> . . .
>>> The HP4805a isn't an impedance meter. It's a vector voltmeter, which
>>> measures voltage amplitude and phase. . .
>
> I think the OP really means 8405 which is a VVM. I think he swapped the
> first two numbers.
>
> He can tell us if I'm wrong.

Can't speak for the OP, but I definitely meant HP8405a, the vector voltmeter. I apologize for the transposition, and also to the OP if I made the wrong assumption about what instrument he meant.

Roy Lewallen, W7EL

1978. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 09:18:35 UTC
From: James Douglas <james.douglas@genesis-software.com>
Message-ID: <EJGdnYAMUP-6hcbZnZ2dnUVZ_vadnZ2d@comcast.com>
Source record: 59967
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Silent Key wrote:
> What's the purpose of ham radio, To have fun talking about rigs and
> weather, or to be able to communicate?
>
> To be able to communicate when no one else can communicate and to advance
> radio knowledge & theory?
>
> What does part 97 say about this? Why does the ARRL ignore it?
>
> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> other lower life form of radio hobbiest. You name it.
>
> SC
In order to graduate school in the Navy we had to both read a punched
teletype tape and read morse code. I don't recall how fast the code was
but the test day was a bitch!

1979. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 11:08:15 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <mM6dnS-uBZ6Ar8bZnZ2dnUVZ_vWdnZ2d@comcast.com>
Source record: 59968
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Mis-statements abound again.

Read the allocation chart in 47 CFR 97.305(a) and 47 CFR 97.305(c). What
CW sub-bands?

47 CFR 395(a) "An amateur station may transmit a CW emission on ANY
frequency authorized to the control operator." [EMPHASIS ADDED]

For USA Amateurs CW is authorized as stated above.

/S/ DD, W1MCE

Steve wrote:

> Will the CW only portions of the lowbands be
> retained, or will those go away as well?
>
> Steve
>
> "Silent Key" <cw.h@m.bands> wrote in message
> news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
>
>>What's the purpose of ham radio, To have fun talking about rigs and
>>weather, or to be able to communicate?
>>
>>To be able to communicate when no one else can communicate and to advance
>>radio knowledge & theory?
>>
>>What does part 97 say about this? Why does the ARRL ignore it?
>>
>>When CW is lost, new hams will be just like CB'ers and SWL's, or some
>>other lower life form of radio hobbiest. You name it.
>>
>>SC
>
>
>

1980. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 11:17:10 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1146827830.022860.277130@j73g2000cwa.googlegroups.com>
Source record: 59969
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Silent Key wrote:
> What's the purpose of ham radio, To have fun talking about rigs and
> weather, or to be able to communicate?
>
> To be able to communicate when no one else can communicate and to advance
> radio knowledge & theory?
>
> What does part 97 say about this? Why does the ARRL ignore it?
>
> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> other lower life form of radio hobbiest. You name it.

If you really believe that morse code is an important way to communicate that should be preserved then you need to convince other hams and potential hams to learn the code. You need to convince enough hams to use code so its very usage generates excitement and makes people want to join in the fun. Almost self-perpetuating like it was in the 1950's.

Preaching (or complaining) to the choir on the radio fora about the abysmal state of things will not add one person to the ranks of key pounding hams.

So what are you going to do to increase the number of code practicing hams.

1981. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 12:03:55 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1146830635.825068.247610@i39g2000cwa.googlegroups.com>
Source record: 59970

Please all, remember,

The common-mode currents the choke is suppressing are not necessarily related to the antenna impedance (the load) or the transmit/receive currents flowing in the antenna, though there can and will be some coupling between the two on an antenna (if you measure antenna Z with/without a choke they will usually differ).

To place the choke in the best spot, you need to measure the common mode current on the feedline and not the load impedance. If you have common mode currents induced by an unbalanced situation in the antenna itself, right at the antenna is probably best. Other places might be good if you are coupling electrical noise to your feedline.
W1HIS's article was most interesting in this respect.

I would assume that because the feedline current is common-mode (the same in both conductors), it will usually travel at the velocity factor of a wire in air rather than the feedline velocity factor, though I do not know this.

73,
Glenn AC7ZN

1982. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 12:26:44 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <8wH6g.66656$_S7.2137@newssvr14.news.prodigy.com>
Source record: 59971
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Silent Key wrote:
> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> other lower life form of radio hobbiest. You name it.

CW will not be lost in the same way that AM is not lost.
A lot of hams in the 1950's believed that SSB would cause
the death of AM and ham radio along with it. SSB operators
sounded like Micky Mouse and were known as Single Sidewinders,
undesirable snakes in the grass within the hobby, and traitors
to the traditional form of amateur radio AM communications.
--
73, Cecil http://www.qsl.net/w5dxp

1983. Re: 4:1 balun question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 12:32:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <KBH6g.66659$_S7.52155@newssvr14.news.prodigy.com>
Source record: 59972

glenn.b.dixon@gmail.com wrote:
> I would assume that because the feedline current is common-mode (the
> same in both conductors), it will usually travel at the velocity factor
> of a wire in air rather than the feedline velocity factor, though I do
> not know this.

Seems like a reasonable assumption given skin effect and the
outside braid of the coax. Common-mode current also, no doubt,
forms standing waves with current minimums and maximums 1/4WL
apart. A choke would be most effective at a standing wave
common mode current maximum point.
--
73, Cecil http://www.qsl.net/w5dxp

1984. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 13:35:12 UTC
From: Buck <not@this.time>
Message-ID: <m2lm521041sb4sav02r48gh7defj2nffb7@4ax.com>
Source record: 59973
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On Fri, 05 May 2006 07:08:15 -0400, Dave <W1MCE@comcast.net> wrote:

>Mis-statements abound again.
>
>Read the allocation chart in 47 CFR 97.305(a) and 47 CFR 97.305(c). What
>CW sub-bands?
>
>47 CFR 395(a) "An amateur station may transmit a CW emission on ANY
>frequency authorized to the control operator." [EMPHASIS ADDED]
>
>For USA Amateurs CW is authorized as stated above.
>
>/S/ DD, W1MCE
>
>
Of course, that excludes the new 60 meter frequencies (I dare not call
it a 'band'.)

--
73 for now
Buck
N4PGW

1985. Re: May 1st 2006, Civil War Begins

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 14:49:10 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <GBJ6g.81896$dW3.36175@newssvr21.news.prodigy.com>
Source record: 59974

Sal M. Onella wrote:
> "Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
> news:cFn6g.66394$_S7.21780@newssvr14.news.prodigy.com...
>
>>nm5k@wt.net wrote:
>>
>>
>>>>May 1st 2006, Civil War Begins ..
>>>
>>>
>>>LOL, that'll be the day... is this related to "missing degrees" ?
>>>I guess we missed the civil war down here in Texas. May 1
>>>came and went, and I didn't notice anything irregular at all.
>>>Nothing was hampered, and it is still quite warm here too..
>>>MK
>>>
>>
>>Nothing happened here in California, either, except that a lot
>>of immigrants had a nice march and got to listen to some inspirational
>>speeches. Afterwords, they all went back to work.
>>73,
>>Tom Donaly, KA6RUH
>
>
> I got a seat on the train going both ways on Monday -- quite a rarity.
> They can take the whole month off.
>
> Heard a good one on Monday: The illegals telling us to revise our laws is
> like a burglar telling you to rearrange your furniture.
>
>

Since we (Americans) stole all this land (California) from Mexico, which
in turn stole it from the native inhabitants, I expect the joke works
both ways.
73,
Tom Donaly, KA6RUH

1986. cw trolling

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 15:11:30 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1146841890.502853.281530@g10g2000cwb.googlegroups.com>
Source record: 59975
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Sal M. Onella wrote:
> "Silent Key" <cw.h@m.bands> wrote in message

> Due to dyslexia, I am unable to learn much Morse Code. I can consistently
> recognize about half of the alphabet and none of the numbers. Morse Code
> might as well be edoC esroM for all the good it will ever do me.
well said
>
> In spite of this, I manage to be a responsible member of the ham radio
> community and I'm damn proud of my service to RACES, to my club as its
> treasurer and to the county as a volunteer communicator. My UHF/VHF points
> in last year's Field Day exceeded the points of our HF stations combined.
> Lower life form, indeed! The nerve of you!

I wish I could say the same about my fd score (althought the fact the
generator the club has been using for years throwing hassh all other 50
mhz region surely had something to do with it
>
> You may get down off your high horse (or should it be "High Morse"?) and
> apologize for all those jabs any old time it pleases you. I'll be here.

the english book of comon prayer knew the dangers in 700's when the
words were written "portect oh loard from the warth of Mrse men"

1987. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 16:41:55 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <nfL6g.5787$DT5.3176@newsread3.news.pas.earthlink.net>
Source record: 59976
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"lsmyer" <lsmyer@yahoo.com> wrote in message news:bKI6g.12$zz.4@fe05.lga...
> I know this is a topic that causes the fur to fly, but I'll add my own
> personal experience.
>
> I have wanted a ham license for thirty years. But I have a learning
> disability that makes it impossible for me to learn a second language.
> I've tried Spanish, French, and Morse code, and I failed miserably at
> all three. But even if they eliminated the code, I still wouldn't be
> able to pass the license test because I am also unable to look at a
> picture or diagram and convert that visual information into words or
> ideas. So that pretty much eliminates my ability to read circuit
> diagrams and process the appropriate information into something usable.
>
> I truly admire everyone who has earned their license.

If you are in the US you do not need to look at any diagrams. Just get a
book that has the question and answers in it. Then memorise it. They are
the exect question and answers.
That will put you to the Tech license and the code may soon not be needed
for the low bands.

1988. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 16:49:51 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e3fvnh$97m$1@avnika.corp.mot.com>
Source record: 59978
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Should stay that way...
"Silent Key" <cw.h@m.bands> wrote in message
news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
> What's the purpose of ham radio, To have fun talking about rigs and
> weather, or to be able to communicate?
> To be able to communicate when no one else can communicate and to advance
> radio knowledge & theory?
> What does part 97 say about this? Why does the ARRL ignore it?
> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> other lower life form of radio hobbiest. You name it.
> SC

Well, "SC" a.k.a. troll,

Cw, when it came along, was frowned uopn and was predicted to be the death of ham radio as well. Did you know that?

Modes currently around that full knowledge of is NOT required to get a licence (where complete knowledge of sending and receiving all the characters in Morse is a requirement):
AM, SSB, RTTY, PSK, Paclet, Amtor, APRS, satellite...basically everything else in Amateur Radio!

I said *full* knowledge. Do any of the tests require explanations of all five (or is it ten) methods (circuit types and how they function) of generating SSB or how to generate CW...or proper operating practice in all situations?

Do you know WHY knowledge of Morse was required in the first place?

I think there should be more on the tests on operating practices. I know some Techs who can do much of the above and make better hams that any old fart crying over the supposed loss of CW. I know Extras who couldn't copy code worth a darn, nor do much in the way of tech stuff...so? They're all friends.

Your fingers and eyes (or ears) aren't broke... so why aren't you out mentoring new hams? In the last two years, how many programs have you written for helping hams with things like blind hams controlling rigs or or audio tapes on radio operation have you recorded for blind hams or trips to help a blind ham erect an antenna, do a small project or program his radio or cables you've given to a new ham for his antenna or taken a blind ham to a hamfest... Why am *I* wasting my time with this...pfffvt

I'll save you the trouble, I'm a 60 year old, 20 WPM Extra and currently spend most of my ham time on 2 & 440 from the car during drive time on repeaters (much more omitted)!

I didn't have to learn code in the Navy (though I did happen to already know it)

Jerks are everywhere and I wonder why I wasted this time. Guess I just needed a little vent...sorry folks..time for lunch.
73, Steve, K9DCI

Answers to the above questions for me: 5, 4,0,1,10,3,1 - not astounding, nor bragging, just true.
If you can't Walk the Walk, don't talk garbage.
doofus troll...

1989. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 16:51:28 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e3fvqi$990$1@avnika.corp.mot.com>
Source record: 59979
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Sorry for all the cross posting. I didn't look. My bad. (:-(

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e3fvnh$97m$1@avnika.corp.mot.com...
> Should stay that way...
> "Silent Key" <cw.h@m.bands> wrote in message
> news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
> > What's the purpose of ham radio, To have fun talking about rigs and
> > weather, or to be able to communicate?
> > To be able to communicate when no one else can communicate and to
advance
> > radio knowledge & theory?
> > What does part 97 say about this? Why does the ARRL ignore it?
> > When CW is lost, new hams will be just like CB'ers and SWL's, or some
> > other lower life form of radio hobbiest. You name it.
> > SC
>
> Well, "SC" a.k.a. troll,
>
> Cw, when it came along, was frowned uopn and was predicted to be the death
> of ham radio as well. Did you know that?
>
> Modes currently around that full knowledge of is NOT required to get a
> licence (where complete knowledge of sending and receiving all the
> characters in Morse is a requirement):
> AM, SSB, RTTY, PSK, Paclet, Amtor, APRS, satellite...basically everything
> else in Amateur Radio!
>
> I said *full* knowledge. Do any of the tests require explanations of all
> five (or is it ten) methods (circuit types and how they function) of
> generating SSB or how to generate CW...or proper operating practice in
all
> situations?
>
> Do you know WHY knowledge of Morse was required in the first place?
>
> I think there should be more on the tests on operating practices. I know
> some Techs who can do much of the above and make better hams that any old
> fart crying over the supposed loss of CW. I know Extras who couldn't copy
> code worth a darn, nor do much in the way of tech stuff...so? They're all
> friends.

>
> Your fingers and eyes (or ears) aren't broke... so why aren't you out
> mentoring new hams? In the last two years, how many programs have you
> written for helping hams with things like blind hams controlling rigs or
or
> audio tapes on radio operation have you recorded for blind hams or trips
to
> help a blind ham erect an antenna, do a small project or program his radio
> or cables you've given to a new ham for his antenna or taken a blind ham
to
> a hamfest... Why am *I* wasting my time with this...pfffvt
>
> I'll save you the trouble, I'm a 60 year old, 20 WPM Extra and currently
> spend most of my ham time on 2 & 440 from the car during drive time on
> repeaters (much more omitted)!
>
> I didn't have to learn code in the Navy (though I did happen to already
know
> it)
>
> Jerks are everywhere and I wonder why I wasted this time. Guess I just
> needed a little vent...sorry folks..time for lunch.
> 73, Steve, K9DCI
>
> Answers to the above questions for me: 5, 4,0,1,10,3,1 - not astounding,
nor
> bragging, just true.
> If you can't Walk the Walk, don't talk garbage.
> doofus troll...
>
>

1990. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 17:00:23 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <d41n521h7vkt7e7isn0lafj1hmojka7m6l@4ax.com>
Source record: 59977
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

ORIGINAL MESSAGE:

On Fri, 05 May 2006 00:15:41 GMT, Silent Key <cw.h@m.bands> wrote:

>What's the purpose of ham radio, To have fun talking about rigs and
>weather, or to be able to communicate?

********** REPLY SEPARATOR **********

1 2 3 4 5 6 7 8 9 10
/
/
/
/
/
/
/
/
TROLL-O-METER

Bill, W6WRT

1991. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 18:01:42 UTC
From: Grimly Curmudgeon <grimlycurmudgeon683REMOVE@hotmail.com>
Message-ID: <qn4n52h2mfhjb33l632pt47qcqtb5vfh5a@4ax.com>
Source record: 59980
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

We were somewhere around Barstow, on the edge of the desert, when the drugs began to take hold. I remember Silent Key <cw.h@m.bands> saying something like:

>When CW is lost, new hams will be just like CB'ers and SWL's, or some
>other lower life form of radio hobbiest. You name it.

Go back to playing with the dinosaurs.
--

Dave

1992. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 19:01:59 UTC
From: John Kasupski <kc2hmz@wzrd.com>
Message-ID: <908n52hq9i6p209o65paqf8ha5sid5dhqf@4ax.com>
Source record: 59982
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On Fri, 05 May 2006 19:01:42 +0100, Grimly Curmudgeon
<grimlycurmudgeon683REMOVE@hotmail.com> wrote:

>We were somewhere around Barstow, on the edge of the desert, when the
>drugs began to take hold. I remember Silent Key <cw.h@m.bands> saying
>something like:
>
>>When CW is lost, new hams will be just like CB'ers and SWL's, or some
>>other lower life form of radio hobbiest. You name it.
>
>Go back to playing with the dinosaurs.

Best reply of the bunch.

1993. cw trolling

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 19:25:07 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146857107.822936.121660@y43g2000cwc.googlegroups.com>
Source record: 59981
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Steve N. wrote:
> Should stay that way...
> "Silent Key" <cw.h@m.bands> wrote in message
> news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
> > What's the purpose of ham radio, To have fun talking about rigs and
> > weather, or to be able to communicate?
> > To be able to communicate when no one else can communicate and to advance
> > radio knowledge & theory?
> > What does part 97 say about this? Why does the ARRL ignore it?
> > When CW is lost, new hams will be just like CB'ers and SWL's, or some
> > other lower life form of radio hobbiest. You name it.
> > SC
>
> Well, "SC" a.k.a. troll,
>
> Cw, when it came along, was frowned uopn and was predicted to be the death
> of ham radio as well. Did you know that?

hmm I knew that about AM and SSB but not CW do you happen to have a
reference for that? (might be useful)

> Your fingers and eyes (or ears) aren't broke....

are you sure? his brain seem to be
>.. so why aren't you out
> mentoring new hams? In the last two years, how many programs have you
> written for helping hams with things like blind hams controlling rigs or or
> audio tapes on radio operation have you recorded for blind hams or trips to
> help a blind ham erect an antenna, do a small project or program his radio
> or cables you've given to a new ham for his antenna or taken a blind ham to
> a hamfest... Why am *I* wasting my time with this...pfffvt

maybe becuase you are tired of this divisve pissing contest or
something like that
>
> I'll save you the trouble, I'm a 60 year old, 20 WPM Extra and currently
> spend most of my ham time on 2 & 440 from the car during drive time on
> repeaters (much more omitted)!
>
> I didn't have to learn code in the Navy (though I did happen to already know
> it)
>
> Jerks are everywhere and I wonder why I wasted this time. Guess I just
> needed a little vent...sorry folks..time for lunch.

> 73, Steve, K9DCI

1994. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 20:37:14 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <eLidndWu2obkKsbZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 59983
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Yep! I stand corrected!!
5330.5 KHz USB ONLY, Maximum band width 2.8 KHz. 50 watts ERPd max.
5346.5 KHz USB ONLY, Maximum band width 2.8 KHz. 50 watts ERPd max.
5366.5 KHz USB ONLY, Maximum band width 2.8 KHz. 50 watts ERPd max.
5371.5 KHz USB ONLY, Maximum band width 2.8 KHz. 50 watts ERPd max.
5403.5 KHz USB ONLY, Maximum band width 2.8 KHz. 50 watts ERPd max.

And, "I dare not call it a 'band'" either. Just 5 channels occupied by
gentle men and gentle women, both genders, with manners.

I have three rigs that operate '60' meters. I've gotten to love that
non-band.

/S/ DD W1MCE

Buck wrote:

> On Fri, 05 May 2006 07:08:15 -0400, Dave <W1MCE@comcast.net> wrote:
>
>
>>Mis-statements abound again.
>>
>>Read the allocation chart in 47 CFR 97.305(a) and 47 CFR 97.305(c). What
>>CW sub-bands?
>>
>>47 CFR 395(a) "An amateur station may transmit a CW emission on ANY
>>frequency authorized to the control operator." [EMPHASIS ADDED]
>>
>>For USA Amateurs CW is authorized as stated above.
>>
>>/S/ DD, W1MCE
>>
>>
>
> Of course, that excludes the new 60 meter frequencies (I dare not call
> it a 'band'.)
>
>

1995. added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 21:53:07 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-B97E6F.23530705052006@news.stben.net>
Source record: 59984
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

That's what I did, 10nF added to the loop- var cap setup, and now I see that RMC INfo on 216 comes in with sig 9... (without loop: about 1).

Strange thing is that with var cap + 10nF the loop only tunes between say 207 and 225 khz, while on AM (without the 10nF), it tunes 1 MHz wide ..

explanation ??
I saw that some people make their own var cap ... (with very large plates...)

Now, I intend to buy some nF caps from 1-50nF or so, to see what's happening ...

Today I picked up two old grundigs, and after some tweaking (knobs) they work !
melody boy 500 (excellent condition, the AM-FM- etc knobs aren't touched ...)
and a Yacht boy with lamp, batt indication, AFC ... tunes very well on SW...
Great sound on both radios ...

---and now, for a great song: ---
http://www.asklyrics.com/display/Church/Antenna_Lyrics/12119.htm
----
You're just an antenna, you're just a wire.
There's a thousand tongues wagging in your ears tonight,
And you turn around and you call me a liar.
Lightly babe, oh the fine lights cannot find you.
She stay out my way, it's the pulse I am aligned to.
And everything you say, you'll need that breath one day.
Well, you're just an antenna, you're just a code.
You translate like a book, the fuses all cook.
You eat humble pie and it tastes of the road.
Lightly babe, oh the fine lights cannot find you.
She say, that's the way, that's the fate I am resigned to.
And everything you say, you'll need that breath one day.
You're just an antenna, you're just a gauge.
You disturb my slumber and round up the numbers
And put them inside your velvety cage.
Lightly babe, oh the fine lights cannot find you.
She say, make my day, and the sunlight will not blind you.
Lightly babe, oh the fine lights cannot find you.
I may never pray to the fortune that's behind you.

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

1996. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 23:00:52 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <frln52l4ovkfphne3qc5v40l140h4972bl@4ax.com>
Source record: 59987
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On Fri, 05 May 2006 23:53:07 +0200, switcher
<no@KijkenZeHierOokAlNaar.be> wrote:
>Strange thing is that with var cap + 10nF the loop only tunes between
>say 207 and 225 khz, while on AM (without the 10nF), it tunes 1 MHz wide
>..
>
>explanation ??

Your variable capacitor (probably in the 20 to 400pF range) is a small
percentage of the total capacitance when the 10nF is added to it.
Alone, and at a higher frequency, it is enough to cover that much
range.

>I saw that some people make their own var cap ... (with very large
>plates...)
>
>Now, I intend to buy some nF caps from 1-50nF or so, to see what's
>happening ...

Buy some 1-50nF? You may discover why others build them.

>Today I picked up two old grundigs, and after some tweaking (knobs) they
>work !
>melody boy 500 (excellent condition, the AM-FM- etc knobs aren't touched
>...)
>and a Yacht boy with lamp, batt indication, AFC ... tunes very well on
>SW...
>Great sound on both radios ...

yes indeed.

>---and now, for a great song: ---
>http://www.asklyrics.com/display/Church/Antenna_Lyrics/12119.htm

Chacun ï¿½ son Goï¿½t!

73's
Richard Clark, KB7QHC

1997. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 23:00:54 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-2559F3.01005406052006@news.stben.net>
Source record: 59985
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

http://cgi.ebay.at/RARITAT-GRUNDIG-Weltempfaenger-YACHT-BOY-TOP_W0QQitemZ7614592587QQcategoryZ19693QQrdZ1QQcmdZViewItem#ebayphotohosting

this is the YB I found ... (I don't sell it, yet ...)

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

1998. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-05 23:01:20 UTC
From: David <rickets@knac.com>
Message-ID: <r9mn52h6jd1h4fm03g427ustjfcvubqm6q@4ax.com>
Source record: 59986
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On Fri, 05 May 2006 23:53:07 +0200, switcher
<no@KijkenZeHierOokAlNaar.be> wrote:

>That's what I did, 10nF added to the loop- var cap setup, and now I see
>that RMC INfo on 216 comes in with sig 9... (without loop: about 1).
>
>Strange thing is that with var cap + 10nF the loop only tunes between
>say 207 and 225 khz, while on AM (without the 10nF), it tunes 1 MHz wide
>..
>
>explanation ??
>I saw that some people make their own var cap ... (with very large
>plates...)
>
>Now, I intend to buy some nF caps from 1-50nF or so, to see what's
>happening ...
>
>Today I picked up two old grundigs, and after some tweaking (knobs) they
>work !
>melody boy 500 (excellent condition, the AM-FM- etc knobs aren't touched
>...)
>and a Yacht boy with lamp, batt indication, AFC ... tunes very well on
>SW...
>Great sound on both radios ...
>
>---and now, for a great song: ---
>http://www.asklyrics.com/display/Church/Antenna_Lyrics/12119.htm
>----
>You're just an antenna, you're just a wire.
>There's a thousand tongues wagging in your ears tonight,
>And you turn around and you call me a liar.
>Lightly babe, oh the fine lights cannot find you.
>She stay out my way, it's the pulse I am aligned to.
>And everything you say, you'll need that breath one day.
>Well, you're just an antenna, you're just a code.
>You translate like a book, the fuses all cook.
>You eat humble pie and it tastes of the road.
>Lightly babe, oh the fine lights cannot find you.
>She say, that's the way, that's the fate I am resigned to.
>And everything you say, you'll need that breath one day.
>You're just an antenna, you're just a gauge.
>You disturb my slumber and round up the numbers

>And put them inside your velvety cage.
>Lightly babe, oh the fine lights cannot find you.
>She say, make my day, and the sunlight will not blind you.
>Lightly babe, oh the fine lights cannot find you.
>I may never pray to the fortune that's behind you.
written by Roderick Taylor
© 1976 Rat's God Music (BMI)

Oh what a sunny day
When they carried the radio home
Bringing him in off of the truck
And the dogs wouldn't leave us alone
Mr. Radio
Come down here to keep us company

We listen in a room
Through the miles and miles of night
Deep in the heart of the Bible Belt
In the golden radio light
Mr. Radio
Come down here to keep us company

And it's hard days out in the field
The crows in the high tree top
If the man's away from his home all day
His chickens might fall to the fox
Mr. Radio
What can you do about that uh huh

And you can take me down to a river town
Where the citizens dance till dawn
Dance so close it's a sin almost
The way they carry on
Mr. Radio
I never dreamed you could

And it's miles at the careless touch
Of a tired hand in time
When evening fell I heard a stranger sell
Dreams that were never mine
Mr. Radio
Come down here to keep us company
Come down here to keep us company

1999. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:00:50 UTC
From: Signal Chaser <em@il.here>
Message-ID: <SGR6g.4150$Vn.458@newsread4.news.pas.earthlink.net>
Source record: 59988
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Steve" <zarco@sonic.net> wrote in
news:445ab003$0$65441$742ec2ed@news.sonic.net:

> Will the CW only portions of the lowbands be
> retained, or will those go away as well?
>
> Steve

I'm fearing it will be Eminent Domain ham radio style.

They'll see spectrum that they don't have the ability to use, because there will be no requirement to have that ability. They will want the spectrum for phone. One good thing, there are other modes besides CW that need it, so maybe they won't take our CW portions and give it to phone only hams and appliance operators.

SC

2000. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:00:51 UTC
From: Signal Chaser <em@il.here>
Message-ID: <TGR6g.4151$Vn.1949@newsread4.news.pas.earthlink.net>
Source record: 59989
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Brenda Ann" <brendad@shinbiro.com> wrote in
news:e3ermq$550$1@news2.kornet.net:

>
> "Silent Key" <cw.h@m.bands> wrote in message
> news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
>> What's the purpose of ham radio, To have fun talking about rigs and
>> weather, or to be able to communicate?
>>
>> To be able to communicate when no one else can communicate and to
>> advance radio knowledge & theory?
>>
>> What does part 97 say about this? Why does the ARRL ignore it?
>>
>> When CW is lost, new hams will be just like CB'ers and SWL's, or some
>> other lower life form of radio hobbiest. You name it.
>>
>> SC
>
> Here's one that I haven't even seen:
>
> Not everyone speaks readable English, but anyone that knows Morse can
> copy any language and read it at their leisure. Also, those who don't
> speak English well can often spell the words well enough to read...
>
> Just a thought.

Thank you.

In a way, it's sort of like sign-language. Two people that don't know
each others tongue but know sign language can still communicate.

SC

2001. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:00:52 UTC
From: Signal Chaser <no.email@my.box>
Message-ID: <UGR6g.4152$Vn.3027@newsread4.news.pas.earthlink.net>
Source record: 59990
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

James Douglas <james.douglas@genesis-software.com> wrote in
news:EJGdnYAMUP-6hcbZnZ2dnUVZ_vadnZ2d@comcast.com:

> Silent Key wrote:
>> What's the purpose of ham radio, To have fun talking about rigs and
>> weather, or to be able to communicate?
>>
>> To be able to communicate when no one else can communicate and to
>> advance radio knowledge & theory?
>>
>> What does part 97 say about this? Why does the ARRL ignore it?
>>
>> When CW is lost, new hams will be just like CB'ers and SWL's, or some
>> other lower life form of radio hobbiest. You name it.
>>
>> SC
> In order to graduate school in the Navy we had to both read a punched
> teletype tape and read morse code. I don't recall how fast the code was
> but the test day was a bitch!

Thank you for your service to America. It is people like you that make us
a great country. When hard work was needing to be done and learned you
were there.

Today people are lazy and that's why they want to get a license in as easy
a way as possible, even if it means the service and our ability to
communicate with each other suffers.

2002. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:00:54 UTC
From: Signal Chaser <em@il.here>
Message-ID: <WGR6g.4153$Vn.678@newsread4.news.pas.earthlink.net>
Source record: 59991
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"John S." <hjsjms@cs.com> wrote in
news:1146827830.022860.277130@j73g2000cwa.googlegroups.com:

> Silent Key wrote:
>> What's the purpose of ham radio, To have fun talking about rigs and
>> weather, or to be able to communicate?
>>
>> To be able to communicate when no one else can communicate and to
>> advance radio knowledge & theory?
>>
>> What does part 97 say about this? Why does the ARRL ignore it?
>>
>> When CW is lost, new hams will be just like CB'ers and SWL's, or some
>> other lower life form of radio hobbiest. You name it.
>
>
> If you really believe that morse code is an important way to
> communicate that should be preserved then you need to convince other
> hams and potential hams to learn the code. You need to convince enough
> hams to use code so its very usage generates excitement and makes
> people want to join in the fun. Almost self-perpetuating like it was
> in the 1950's.
>
> Preaching (or complaining) to the choir on the radio fora about the
> abysmal state of things will not add one person to the ranks of key
> pounding hams.
>
> So what are you going to do to increase the number of code practicing
> hams.

Call the FCC, email the ARRL. Tell them you don't want to see ham radio
dumbed down anymore, for the good of the service and the good of country.

God bless America. Amen

SC

2003. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:00:55 UTC
From: Signal Chaser <no.sp@m.here>
Message-ID: <XGR6g.4154$Vn.2330@newsread4.news.pas.earthlink.net>
Source record: 59992
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Cecil Moore <mycall@hotmail.com> wrote in
news:8wH6g.66656$_S7.2137@newssvr14.news.prodigy.com:

> Silent Key wrote:
>> When CW is lost, new hams will be just like CB'ers and SWL's, or some
>> other lower life form of radio hobbiest. You name it.
>
> CW will not be lost in the same way that AM is not lost.
> A lot of hams in the 1950's believed that SSB would cause
> the death of AM and ham radio along with it. SSB operators
> sounded like Micky Mouse and were known as Single Sidewinders,
> undesirable snakes in the grass within the hobby, and traitors
> to the traditional form of amateur radio AM communications.

But it's the lower qualifications that will cause the service to suffer. I
don't think new general class hams today have as much of a grasp on theory
as new ones did 15 years ago. 15 years ago, they spent more time studying
the theory while they were building their code speed up.

Loss of the requirement to be code proficient though could be offset if
the passing score on written the exams were raised to 85%

SC

2004. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:00:57 UTC
From: Silent Keys <S@ve.cw>
Message-ID: <ZGR6g.4155$Vn.1246@newsread4.news.pas.earthlink.net>
Source record: 59993
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in
news:2uA6g.8331$QP4.4556@fed1read12:

>
> "Silent Key" <cw.h@m.bands> wrote in message
> news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
>> What's the purpose of ham radio, To have fun talking about rigs and
>> weather, or to be able to communicate?
>>
>> To be able to communicate when no one else can communicate and to
>> advance radio knowledge & theory?
>>
>> What does part 97 say about this? Why does the ARRL ignore it?
>>
>> When CW is lost, new hams will be just like CB'ers and SWL's, or some
>> other lower life form of radio hobbiest. You name it.
>>
>> SC
>
> I should be able to keep this from getting to me, but sometimes I just
> feel like responding to the attempted intimidation by these elitists.
>
> Mate, your key is only silent from the neck, up.
>
> Due to dyslexia, I am unable to learn much Morse Code. I can
> consistently recognize about half of the alphabet and none of the
> numbers. Morse Code might as well be edoC esroM for all the good it
> will ever do me.
>
> In spite of this, I manage to be a responsible member of the ham radio
> community and I'm damn proud of my service to RACES, to my club as its
> treasurer and to the county as a volunteer communicator. My UHF/VHF
> points in last year's Field Day exceeded the points of our HF stations
> combined. Lower life form, indeed! The nerve of you!

Yes, but can you send and receive Code at 13 or 20wpm?

What if in an emergency your microphone broke, and the only thing you had
to save a life was CW? With your skills, that person would die. In that
situation you'd be about as useful as two tin cans and a piece of string.

SC

2005. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:00:58 UTC
From: Signal Chaser <s@ve.cw>
Message-ID: <_GR6g.4156$Vn.950@newsread4.news.pas.earthlink.net>
Source record: 59994
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in
news:nfL6g.5787$DT5.3176@newsread3.news.pas.earthlink.net:

> and the code may soon not be
> needed for the low bands.

But we hope that won't happen though.

We already have CB for a codeless service. You want Ham radio to be like
CB?

SC

2006. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:00:59 UTC
From: Signal Chaser <S@ve.cw>
Message-ID: <%GR6g.4157$Vn.1486@newsread4.news.pas.earthlink.net>
Source record: 59996
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Bill Turner <dezrat@copper.net> wrote in
news:d41n521h7vkt7e7isn0lafj1hmojka7m6l@4ax.com:

> ORIGINAL MESSAGE:
>
> On Fri, 05 May 2006 00:15:41 GMT, Silent Key <cw.h@m.bands> wrote:
>
>
>>What's the purpose of ham radio, To have fun talking about rigs and
>>weather, or to be able to communicate?
>
> ********** REPLY SEPARATOR **********
>
> 1 2 3 4 5 6 7 8 9 10
> /
> /
> /
> /
> /
> /
> /
> /
> TROLL-O-METER
>
>
> Bill, W6WRT

Come on Bill, I know you care more about ham radio than to just post the
meter.

SC

2007. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:01:01 UTC
From: Save Cw <S@ve.cw>
Message-ID: <1HR6g.4158$Vn.3109@newsread4.news.pas.earthlink.net>
Source record: 59995
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in
news:e3fvnh$97m$1@avnika.corp.mot.com:

> Should stay that way...
> "Silent Key" <cw.h@m.bands> wrote in message
> news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
>> What's the purpose of ham radio, To have fun talking about rigs and
>> weather, or to be able to communicate?
>> To be able to communicate when no one else can communicate and to
>> advance radio knowledge & theory?
>> What does part 97 say about this? Why does the ARRL ignore it?
>> When CW is lost, new hams will be just like CB'ers and SWL's, or some
>> other lower life form of radio hobbiest. You name it.
>> SC
>
> Well, "SC" a.k.a. troll,
>
> Cw, when it came along, was frowned uopn and was predicted to be the
> death of ham radio as well. Did you know that?
>
> Modes currently around that full knowledge of is NOT required to get a
> licence (where complete knowledge of sending and receiving all the
> characters in Morse is a requirement):
> AM, SSB, RTTY, PSK, Paclet, Amtor, APRS, satellite...basically
> everything else in Amateur Radio!
>
> I said *full* knowledge. Do any of the tests require explanations of
> all five (or is it ten) methods (circuit types and how they function) of
> generating SSB or how to generate CW...or proper operating practice in
> all situations?
>
> Do you know WHY knowledge of Morse was required in the first place?
>
> I think there should be more on the tests on operating practices. I
> know some Techs who can do much of the above and make better hams that
> any old fart crying over the supposed loss of CW. I know Extras who
> couldn't copy code worth a darn, nor do much in the way of tech
> stuff...so? They're all friends.
>
> Your fingers and eyes (or ears) aren't broke... so why aren't you out
> mentoring new hams? In the last two years, how many programs have you

> written for helping hams with things like blind hams controlling rigs or
> or audio tapes on radio operation have you recorded for blind hams or
> trips to help a blind ham erect an antenna, do a small project or
> program his radio or cables you've given to a new ham for his antenna or
> taken a blind ham to a hamfest... Why am *I* wasting my time with
> this...pfffvt
>
> I'll save you the trouble, I'm a 60 year old, 20 WPM Extra and currently
> spend most of my ham time on 2 & 440 from the car during drive time on
> repeaters (much more omitted)!
>
> I didn't have to learn code in the Navy (though I did happen to already
> know it)
>
> Jerks are everywhere and I wonder why I wasted this time. Guess I just
> needed a little vent...sorry folks..time for lunch.
> 73, Steve, K9DCI
>
> Answers to the above questions for me: 5, 4,0,1,10,3,1 - not astounding,
> nor bragging, just true.
> If you can't Walk the Walk, don't talk garbage.
> doofus troll...

Right, that's the service nature of hams. Hams helping hams, and hams serving the community. And Dumbing it down can effect the quality of service. Maybe it won't go totally to shit while you and I are still around, but it will happen. In Life, What happens when standards are lowered, things get better?

SC

2008. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:01:02 UTC
From: Signal Chaser <S@ve.cw.now>
Message-ID: <2HR6g.4159$Vn.2910@newsread4.news.pas.earthlink.net>
Source record: 59997
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Grimly Curmudgeon <grimlycurmudgeon683REMOVE@hotmail.com> wrote in
news:qn4n52h2mfhjb33l632pt47qcqtb5vfh5a@4ax.com:

> We were somewhere around Barstow, on the edge of the desert, when the
> drugs began to take hold. I remember Silent Key <cw.h@m.bands> saying
> something like:
>
>>When CW is lost, new hams will be just like CB'ers and SWL's, or some
>>other lower life form of radio hobbiest. You name it.
>
> Go back to playing with the dinosaurs.

Sorry, Didn't copy. Send it to me in CW.

TNX

SC

2009. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:17:39 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1146874659.149810.217060@y43g2000cwc.googlegroups.com>
Source record: 59998
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Silent Keys wrote:
> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
> news:2uA6g.8331$QP4.4556@fed1read12:
>
> >
> > "Silent Key" <cw.h@m.bands> wrote in message
> > news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
> >> What's the purpose of ham radio, To have fun talking about rigs and
> >> weather, or to be able to communicate?
> >>
> >> To be able to communicate when no one else can communicate and to
> >> advance radio knowledge & theory?
> >>
> >> What does part 97 say about this? Why does the ARRL ignore it?
> >>
> >> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> >> other lower life form of radio hobbiest. You name it.
> >>
> >> SC
> >
> > I should be able to keep this from getting to me, but sometimes I just
> > feel like responding to the attempted intimidation by these elitists.
> >
> > Mate, your key is only silent from the neck, up.
> >
> > Due to dyslexia, I am unable to learn much Morse Code. I can
> > consistently recognize about half of the alphabet and none of the
> > numbers. Morse Code might as well be edoC esroM for all the good it
> > will ever do me.
> >
> > In spite of this, I manage to be a responsible member of the ham radio
> > community and I'm damn proud of my service to RACES, to my club as its
> > treasurer and to the county as a volunteer communicator. My UHF/VHF
> > points in last year's Field Day exceeded the points of our HF stations
> > combined. Lower life form, indeed! The nerve of you!
>
>
> Yes, but can you send and receive Code at 13 or 20wpm?

i can or rather my pc can
>
```

> What if in an emergency your microphone broke, and the only thing you had
> to save a life was CW?
describe the last time that happened in real life
> With your skills, that person would die.
prehaps but it is not my or his job to save that person
> In that
> situation you'd be about as useful as two tin cans and a piece of string.

and without a mic in most cases youd be as useless yourself
>
> SC

2010. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:19:44 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1146874784.016457.228550@i39g2000cwa.googlegroups.com>
Source record: 59999
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Signal Chaser wrote:
> Cecil Moore <mycall@hotmail.com> wrote in
> news:8wH6g.66656$_S7.2137@newssvr14.news.prodigy.com:
>

> But it's the lower qualifications that will cause the service to suffer.
any eveidence to support this
>I
> don't think new general class hams today have as much of a grasp on theory
> as new ones did 15 years ago.
your eveidence
>15 years ago, they spent more time studying
> the theory while they were building their code speed up.
hardly they spent their time learning the code rather than learn
something usefull

>
> Loss of the requirement to be code proficient though could be offset if
> the passing score on written the exams were raised to 85%

what uis the need to do

their is no loss in ending the code requirement so why does anything
need to replace it
>
> SC

2011. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:21:07 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1146874867.584120.84680@j33g2000cwa.googlegroups.com>
Source record: 60000
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Save Cw wrote:
> "Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in
> news:e3fvnh$97m$1@avnika.corp.mot.com:

> > > Answers to the above questions for me: 5, 4,0,1,10,3,1 - not astounding,
> > > nor bragging, just true.
> > > If you can't Walk the Walk, don't talk garbage.
> > > doofus troll...
> >
> >
> > Right, that's the service nature of hams. Hams helping hams, and hams
> > serving the community. And Dumbing it down can effect the quality of
> > service. Maybe it won't go totally to shit while you and I are still
> > around, but it will happen. In Life, What happens when standards are
> > lowered, things get better?

how is elimting a a frat house game lower stadards?
>
> SC

2012. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:22:57 UTC
From: Grimly Curmudgeon <grimlycurmudgeon683REMOVE@hotmail.com>
Message-ID: <p1rn525r3jcocdfi879c423kenaajcdv7b@4ax.com>
Source record: 60001
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

We were somewhere around Barstow, on the edge of the desert, when the
drugs began to take hold. I remember Signal Chaser <S@ve.cw.now> saying
something like:

>Grimly Curmudgeon <grimlycurmudgeon683REMOVE@hotmail.com> wrote in
>news:qn4n52h2mfhjb33l632pt47qcqtb5vfh5a@4ax.com:
>
>> We were somewhere around Barstow, on the edge of the desert, when the
>> drugs began to take hold. I remember Silent Key <cw.h@m.bands> saying
>> something like:
>>
>>>When CW is lost, new hams will be just like CB'ers and SWL's, or some
>>>other lower life form of radio hobbiest. You name it.
>>
>> Go back to playing with the dinosaurs.
>
>
>Sorry, Didn't copy. Send it to me in CW.

--. --- / -... .- -.-. -.- / - --- / .--. .-.. .- -.-- .. -. --. /
.-- .. - .... / - .... . / -.. .. -. --- ... .- ..- .-. ...
--

Dave

2013. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:26:42 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1146875202.800298.36790@g10g2000cwb.googlegroups.com>
Source record: 60002
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Signal Chaser wrote:
> "John S." <hjsjms@cs.com> wrote in
> news:1146827830.022860.277130@j73g2000cwa.googlegroups.com:
>

> > So what are you going to do to increase the number of code practicing
> > hams.
>
>
> Call the FCC, email the ARRL. Tell them you don't want to see ham radio
> dumbed down anymore, for the good of the service and the good of country.

why? the FCC has made up its mind just waiting fro the monemnt to enact
it with the least fuss

if you wanted to make a last find the CONGRES crtiter on the telcom
comittees but you need a reason to save sw testing first
the reason your side lost is they don't have areason that stands up for
imposing the restriction\
>
> God bless America. Amen
>
> SC

2014. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:41:49 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <_I2dnfwDCNN4bcbZRVn-jg@comcast.com>
Source record: 60003
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:2uA6g.8331$QP4.4556@fed1read12...
>
> "Silent Key" <cw.h@m.bands> wrote in message
> news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
>> What's the purpose of ham radio, To have fun talking about rigs and
>> weather, or to be able to communicate?
>>
>> To be able to communicate when no one else can communicate and to advance
>> radio knowledge & theory?
>>
>> What does part 97 say about this? Why does the ARRL ignore it?
>>
>> When CW is lost, new hams will be just like CB'ers and SWL's, or some
>> other lower life form of radio hobbiest. You name it.
>>
>> SC
>
> I should be able to keep this from getting to me, but sometimes I just
> feel
> like responding to the attempted intimidation by these elitists.
>
> Mate, your key is only silent from the neck, up.
>
> Due to dyslexia, I am unable to learn much Morse Code. I can consistently
> recognize about half of the alphabet and none of the numbers. Morse Code
> might as well be edoC esroM for all the good it will ever do me.
>

Actually your own words have proven that you can learn it. You say you can consistently recognize about half the alphabet. So you have demonstrated your ability to learn it.

Perhaps you just haven't spent enough time on it or used a poor training method (there's way too many of those around). Most people's expectations of how long it will take are unrealistically short. For the average person, it will take 1/2 hour per day every day for 60 days.

Now writing it down could be a problem due to dyslexia but there are ways around that. You don't have to write it down. You can ask to be allowed to say the characters into a tape recorder. You could dictate the characters to a VE to write down for you. You could simply jot down notes and answer

the questions and not worry about solid copy. Again if there is a risk of writing it backwards, you could have the VE write down what you tell him/her. Naturally such accomodations have to be set up in advance.

> In spite of this, I manage to be a responsible member of the ham radio
> community and I'm damn proud of my service to RACES, to my club as its
> treasurer and to the county as a volunteer communicator. My UHF/VHF
> points
> in last year's Field Day exceeded the points of our HF stations combined.
> Lower life form, indeed! The nerve of you!
>

You must have run into some crummy people. That is not necessarily true of all groups.

> You may get down off your high horse (or should it be "High Morse"?) and
> apologize for all those jabs any old time it pleases you. I'll be here.
>

You are painting with a very broad brush. There are many amateurs who do not jab the Technicians. These days the membership of most clubs is about half Technicians. Perhaps you need to run with a different club.

Dee, N8UZE

2015. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:47:38 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146876458.783451.44800@i39g2000cwa.googlegroups.com>
Source record: 60004
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dee Flint wrote:
> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
> news:2uA6g.8331$QP4.4556@fed1read12...
> >
> > "Silent Key" <cw.h@m.bands> wrote in message
> > news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
> >> What's the purpose of ham radio, To have fun talking about rigs and
> >> weather, or to be able to communicate?
> >>
> >> To be able to communicate when no one else can communicate and to advance
> >> radio knowledge & theory?
> >>
> >> What does part 97 say about this? Why does the ARRL ignore it?
> >>
> >> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> >> other lower life form of radio hobbiest. You name it.
> >>
> >> SC
> >
> > I should be able to keep this from getting to me, but sometimes I just
> > feel
> > like responding to the attempted intimidation by these elitists.
> >
> > Mate, your key is only silent from the neck, up.
> >
> > Due to dyslexia, I am unable to learn much Morse Code. I can consistently
> > recognize about half of the alphabet and none of the numbers. Morse Code
> > might as well be edoC esroM for all the good it will ever do me.
> >
>
> Actually your own words have proven that you can learn it. You say you can
> consistently recognize about half the alphabet. So you have demonstrated
> your ability to learn it.

that is not the case you simply don't know what you are talking about
Dee
>
> Perhaps you just haven't spent enough time on it or used a poor training
> method (there's way too many of those around). Most people's expectations
> of how long it will take are unrealistically short. For the average person,
> it will take 1/2 hour per day every day for 60 days.

>
> Now writing it down could be a problem due to dyslexia but there are ways
> around that. You don't have to write it down. You can ask to be allowed to
> say the characters into a tape recorder. You could dictate the characters
> to a VE to write down for you. You could simply jot down notes and answer
> the questions and not worry about solid copy. Again if there is a risk of
> writing it backwards, you could have the VE write down what you tell
> him/her. Naturally such accomodations have to be set up in advance.

you can ask but you can't realy enforce that right and why shoudl he or
I have to for a skill that is not required
>
> > In spite of this, I manage to be a responsible member of the ham radio
> > community and I'm damn proud of my service to RACES, to my club as its
> > treasurer and to the county as a volunteer communicator. My UHF/VHF
> > points
> > in last year's Field Day exceeded the points of our HF stations combined.
> > Lower life form, indeed! The nerve of you!
> >
>
> You must have run into some crummy people. That is not necessarily true of
> all groups.

but there are neough of them your self for example presumeing you know
what another person can do I am can keep about half the letter in my
head at a time but no more than and I spent many years at with little
success

you are judgemental and all but calle dhim a liar for saying he can't
do it

>
> > You may get down off your high horse (or should it be "High Morse"?) and
> > apologize for all those jabs any old time it pleases you. I'll be here.
> >
>
> You are painting with a very broad brush. There are many amateurs who do
> not jab the Technicians. These days the membership of most clubs is about
> half Technicians. Perhaps you need to run with a different club.

well you take your joabs at them yourself being an extra I supose you
ust can't be othered to notice what you are syaing
>
> Dee, N8UZE

2016. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 00:48:30 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1146876510.667640.212510@j33g2000cwa.googlegroups.com>
Source record: 60005
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Well, if he does cover 207-225 w/ a fixed 10nF in parallel with whatever tuning cap he has, that implies Cmax/Cmin = (225/207)^2 = 1.18/1. Since Cmin is at least 10nF, the variable to accomplish that must be 1800pF, at least. That in itself is a pretty good size variable cap.

Then the implication would be that L = 50uH, and 1800pF would tune that to 530kHz. The minimum capacitance including stray and effecitve coil shunt would be 175pF to tune to 1700kHz.

I think he means to buy some fixed caps in the range 1-50nF, not a 1-50nF variable. (Though in this forum, maybe he does mean the variable!) The fixed caps could make some sense. Maybe put them on dual stackable banana plugs, and plug together whatever value is desired.

Switcher, you can do the calcs yourself: 2*pi*freq = 1/sqrt(L*C) -- or use something like the RF calculator that's in RFSim99. And you may find it's better to not try to cover too wide a range with one loop by adjusting only the capacitance, for performance reasons in addition to the fact that the tuning range will get very small as you go to larger fixed capacitances.

Cheers,
Tom

2017. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 01:00:01 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-45160F.18000105052006@newsclstr02.news.prodigy.com>
Source record: 60006
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <no-B97E6F.23530705052006@news.stben.net>,
switcher <no@KijkenZeHierOokAlNaar.be> wrote:

> That's what I did, 10nF added to the loop- var cap setup, and now I see
> that RMC INfo on 216 comes in with sig 9... (without loop: about 1).
>
> Strange thing is that with var cap + 10nF the loop only tunes between
> say 207 and 225 khz, while on AM (without the 10nF), it tunes 1 MHz wide
> ..
>
> explanation ??

< Snip >

Your tuning cap at the low range is only part of the total capacitance
instead of the whole capacitance for the resonant circuit. I have those
duh moments too.

--
Telamon
Ventura, California

2018. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 01:07:10 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <445BF67E.CA5D836F@earthlink.net>
Source record: 60007
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

K7ITM wrote:
>
> I think he means to buy some fixed caps in the range 1-50nF, not a
> 1-50nF variable. (Though in this forum, maybe he does mean the
> variable!) The fixed caps could make some sense. Maybe put them on
> dual stackable banana plugs, and plug together whatever value is
> desired.

You could use a solid state analog mux IC to switch capacitors at
those frequencies. Maxim, Analog Devices and others make a wide
selection of these chips.

--
Service to my country? Been there, Done that, and I've got my DD214 to
prove it.
Member of DAV #85.

Michael A. Terrell
Central Florida

2019. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 02:11:52 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <IBT6g.66837$_S7.28808@newssvr14.news.prodigy.com>
Source record: 60008
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Signal Chaser wrote:
> "Brenda Ann" <brendad@shinbiro.com> wrote in
>>Not everyone speaks readable English, but anyone that knows Morse can
>>copy any language and read it at their leisure. Also, those who don't
>>speak English well can often spell the words well enough to read...
>>
> In a way, it's sort of like sign-language. Two people that don't know
> each others tongue but know sign language can still communicate.

Of course, the same thing is possible on SSB communicating
phonetically.
--
73, Cecil http://www.qsl.net/w5dxp

2020. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 02:13:03 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <PCT6g.66838$_S7.66325@newssvr14.news.prodigy.com>
Source record: 60009
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Signal Chaser wrote:
> Call the FCC, email the ARRL. Tell them you don't want to see ham radio
> dumbed down anymore, for the good of the service and the good of country.

Let's require a EE degree instead of Morse Code.
--
73, Cecil http://www.qsl.net/w5dxp

2021. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 02:14:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <DET6g.66840$_S7.52842@newssvr14.news.prodigy.com>
Source record: 60010
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Silent Keys wrote:
> What if in an emergency your microphone broke, and the only thing you had
> to save a life was CW?

What if the aliens invaded and all they couldn't understand
was CW?
--
73, Cecil http://www.qsl.net/w5dxp
```

2022. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 02:59:29 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146884369.627806.238470@u72g2000cwu.googlegroups.com>
Source record: 60011
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Signal Chaser wrote:
> "Ralph Mowery" <rmowery28146@earthlink.net> wrote in
> news:nfL6g.5787$DT5.3176@newsread3.news.pas.earthlink.net:
>
> > and the code may soon not be
> > needed for the low bands.
>
>
> But we hope that won't happen though.
yes we do
>
> We already have CB for a codeless service. You want Ham radio to be like
> CB?

it will not be since you can't do lots of stuff on cb that you can on
ham radio
>
> SC
```

2023. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 03:35:02 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445c1967$0$6152$39cecf19@news.twtelecom.net>
Source record: 60012
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Signal Chaser wrote:

> I'm fearing it will be Eminent Domain ham radio style.
>
> They'll see spectrum that they don't have the ability to use, because
> there will be no requirement to have that ability. They will want the
> spectrum for phone. One good thing, there are other modes besides CW that
> need it, so maybe they won't take our CW portions and give it to phone
> only hams and appliance operators.
>
> SC

Well, with the 4 or 5 CW signals that are on most bands at any given
time (except VHF and up during contests, BTW), who would notice the
loss. No offense, but if CW ops want to keep the territory, they'd
better start populating it.

tom
K0TAR

2024. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 03:43:05 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445c1b4a$0$6152$39cecf19@news.twtelecom.net>
Source record: 60013
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Signal Chaser wrote:

>>Preaching (or complaining) to the choir on the radio fora about the
>>abysmal state of things will not add one person to the ranks of key
>>pounding hams.
>>
>>So what are you going to do to increase the number of code practicing
>>hams.
>
>
>
> Call the FCC, email the ARRL. Tell them you don't want to see ham radio
> dumbed down anymore, for the good of the service and the good of country.
>
> God bless America. Amen
>
> SC
>

Yup, that increased the number of CW ops by a lot. Typical old style
ham response. Moron. Pure and simple moron.

This is why CW is losing the battle. Not because it's a lost art, or
something that's not worthwhile, but because the "supporters" do nothing
but complain.

I don't want to see CW go away; I think it's a "good thing", and should
stay around, especially for things it still does well, such as EME. Of
course this is not the place to speak of "advanced" things like EME,
after all, it's only been around for 50 years.

tom
K0TAR

2025. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 03:50:07 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146887406.987407.27910@e56g2000cwe.googlegroups.com>
Source record: 60014
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Tom Ring wrote:
> Signal Chaser wrote:
>
> >>Preaching (or complaining) to the choir on the radio fora about the
> >>abysmal state of things will not add one person to the ranks of key
> >>pounding hams.
> >>
> >>So what are you going to do to increase the number of code practicing
> >>hams.
> > >
> > >
> > >
> > > Call the FCC, email the ARRL. Tell them you don't want to see ham radio
> > > dumbed down anymore, for the good of the service and the good of country.
> > >
> > > God bless America. Amen
> > >
> > > SC
> > >
>
> Yup, that increased the number of CW ops by a lot. Typical old style
> ham response. Moron. Pure and simple moron.
indeed it has not increased the number of OPS by even one
>
> This is why CW is losing the battle. Not because it's a lost art, or
> something that's not worthwhile, but because the "supporters" do nothing
> but complain.
indeed they make it so unpleansent i am shocked it hasn't died out
>
> I don't want to see CW go away; I think it's a "good thing", and should
> stay around, especially for things it still does well, such as EME. Of
> course this is not the place to speak of "advanced" things like EME,
> after all, it's only been around for 50 years.
>
> tom
> K0TAR

2026. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 03:53:28 UTC
From: Buck <not@this.time>
Message-ID: <887o52psg5m4r5hrn4hjpc9s8c8sb8cqgh@4ax.com>
Source record: 60015
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On Fri, 05 May 2006 16:37:14 -0400, Dave <W1MCE@comcast.net> wrote:

>Yep! I stand corrected!!
>5330.5 KHz USB ONLY, Maximum band width 2.8 KHz. 50 watts ERPd max.
>5346.5 KHz USB ONLY, Maximum band width 2.8 KHz. 50 watts ERPd max.
>5366.5 KHz USB ONLY, Maximum band width 2.8 KHz. 50 watts ERPd max.
>5371.5 KHz USB ONLY, Maximum band width 2.8 KHz. 50 watts ERPd max.
>5403.5 KHz USB ONLY, Maximum band width 2.8 KHz. 50 watts ERPd max.
>
>And, "I dare not call it a 'band'" either. Just 5 channels occupied by
>gentle men and gentle women, both genders, with manners.
>
>I have three rigs that operate '60' meters. I've gotten to love that
>non-band.
>
>/S/ DD W1MCE
>
>Buck wrote:
>

I love it too. It's a great mobile band, but I don't have a mobile
antenna for it. I have used it with a tuned dipole a good bit. Even
talked to England once. It is mostly stateside comms, but its like
you said, a lot of gentlemen and gentlewomen! I am hoping to get an
antenna for it in the near future for both the car and my new
location.

73 for now.

PS there is a sixth channel only available in and around Alaska, but I
forget the frequency. It is an emergency only channel.

--
73 for now
Buck
N4PGW

2027. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 03:55:19 UTC
From: Buck <not@this.time>
Message-ID: <1f7o52hs7g8ee1u0kg6013bo0po968s5ol@4ax.com>
Source record: 60016
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On Thu, 4 May 2006 18:53:07 -0700, "Steve" <zarco@sonic.net> wrote:

>Will the CW only portions of the lowbands be
>retained, or will those go away as well?
>
> Steve
>
There are no 'cw only' portions. They are 'digital' portions.
--
73 for now
Buck
N4PGW

2028. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 03:55:45 UTC
From: bradvk2qq <bradvk2qq@w6ir.com>
Message-ID: <1146887745.710806.22350@i40g2000cwc.googlegroups.com>
Source record: 60017
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dumb argument.

CW is only being removed as a compulsory exam element. Oddly enough,
now that it is not compulsory, it's popularity is growing!

2029. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 05:09:19 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445c2f80$0$1005$39cecf19@news.twtelecom.net>
Source record: 60018
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Cecil Moore wrote:

> Silent Keys wrote:
>
>> What if in an emergency your microphone broke, and the only thing you had
>> to save a life was CW?
>
>
> What if the aliens invaded and all they couldn't understand
> was CW?

Which is most likely, actually. We broadcast a lot more voice than CW,
Ever noticed how many watts of television, FM radio and AM radio are
out there versus CW?

CW is effectivly dead except for those that wish to keep it alive.
Similar to the old car collectors. Nothing wrong with it. beautiful
collector items, but not really part of the current world.

2030. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 05:20:56 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445c3238$0$6144$39cecf19@news.twtelecom.net>
Source record: 60019
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Tom Ring wrote:

> I don't want to see CW go away; I think it's a "good thing", and should
> stay around, especially for things it still does well, such as EME. Of
> course this is not the place to speak of "advanced" things like EME,
> after all, it's only been around for 50 years.
>
> tom
> K0TAR

Bet no one from the antenna newsgroup even bothers to respond with
anything worthwhile. This is, after all, a group of people that thinks
the world ends at 10 meters. (Except for a very very few, and you know
I'm not speaking of you).

tom
K0TAR

2031. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 06:35:28 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-C0635C.08352706052006@news.stben.net>
Source record: 60020
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <1146876510.667640.212510@j33g2000cwa.googlegroups.com>,
"K7ITM" <k7itm@msn.com> wrote:

> I think he means to buy some fixed caps in the range 1-50nF, not a
> 1-50nF variable.

Yes, I would buy fixed, of course, they have them in eu at www.conrad.fr
/ .de /.be / .nl

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

2032. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 06:46:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bgho52h6dqvdf8gfuvub7tsf1a9d623rsm@4ax.com>
Source record: 60021
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

On Sat, 06 May 2006 08:35:28 +0200, switcher
<no@KijkenZeHierOokAlNaar.be> wrote:

>Yes, I would buy fixed, of course, they have them in eu at www.conrad.fr

Make sure they exhibit low ESR (Equivalent Series Resistance). Not
all capacitors are especially suitable for tuning.

73's
Richard Clark, KB7QHC

2033. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 07:16:34 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-CBB461.09163406052006@news.stben.net>
Source record: 60022
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <no-B97E6F.23530705052006@news.stben.net>,
switcher <no@KijkenZeHierOokAlNaar.be> wrote:

> That's what I did, 10nF added to the loop- var cap setup, and now I see
> that RMC INfo on 216 comes in with sig 9... (without loop: about 1).
>
> Strange thing is that with var cap + 10nF the loop only tunes between
> say 207 and 225 khz, while on AM (without the 10nF), it tunes 1 MHz wide
> ..

Of course, now I can add more turns to the loop.

The loop is 2 x 3 meter of PVC tube, bended in a circle.
There are now 3 turns. Guess ... how many turns to have the LW
153-279khz ???

picture of a previous version , large (2 m) and small 83 cm hulahoop

http://users.fulladsl.be/spb13810/oc/IMAG0015.JPG

The way I construct the hulahoop now, so that it "keeps head up":
http://users.fulladsl.be/spb13810/amloop/loopbottom.jpg
http://users.fulladsl.be/spb13810/amloop/loop83cm.jpg
http://users.fulladsl.be/spb13810/amloop/loopbottom2.jpg
(when the box is closed, you can put a radio on it, nicely positioned
inside the loop)

these formumla's say:
http://www.mindspring.com/~loop_antenna/umr_emc_calc.htm

some 15 turns... on a 2m diam loop ...

I know about the computer flat cable trick...

(I put the first formula in cm (100 cm = 1 meter) on
http://users.fulladsl.be/spb13810/amloop.htm
)

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

2034. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 07:38:11 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1146901091.919579.73480@i40g2000cwc.googlegroups.com>
Source record: 60023
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Telamon,
Starting-Off Today with Only
Heinz 57 to go +1 :o) ~ RHF
[It's About : N U M B 3 R S]

The Number "57" has Mystical Significance
http://www.straightdope.com/classics/a1_195
.
.
. .
.

2035. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 09:16:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125oqbpg9m4d261@corp.supernews.com>
Source record: 60024
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Tom Ring wrote:
>
> Bet no one from the antenna newsgroup even bothers to respond with
> anything worthwhile. This is, after all, a group of people that thinks
> the world ends at 10 meters. (Except for a very very few, and you know
> I'm not speaking of you).

I bet no one from the antenna newsgroup bothers to respond because the topic doesn't have anything to do with antennas. There are plenty of other newsgroups for those who favor the endless CW/no CW arguments.

Roy Lewallen, W7EL

2036. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 12:11:29 UTC
From: Jozef <jozef@metaphoria.org>
Message-ID: <1146917413.147739@r2d2.vermontel.net>
Source record: 60025
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

My $0.02: Passing the CW element requires the acquisition of a skill.
Passing the "written" element requires memorizing answers to a test where
the answers are handed out ahead of time. Some accomplishment, eh?

Jozef WB2MIC

"bradvk2qq" <bradvk2qq@w6ir.com> wrote in message
news:1146887745.710806.22350@i40g2000cwc.googlegroups.com...
> Dumb argument.
>
> CW is only being removed as a compulsory exam element. Oddly enough,
> now that it is not compulsory, it's popularity is growing!
>

2037. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 12:50:13 UTC
From: Buck <not@this.time>
Message-ID: <8p6p52hof5rqhlkttbkovt8q3r8ric48pa@4ax.com>
Source record: 59876
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On Sat, 06 May 2006 02:16:35 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Tom Ring wrote:
>>
>> Bet no one from the antenna newsgroup even bothers to respond with
>> anything worthwhile. This is, after all, a group of people that thinks
>> the world ends at 10 meters. (Except for a very very few, and you know
>> I'm not speaking of you).
>
>I bet no one from the antenna newsgroup bothers to respond because the
>topic doesn't have anything to do with antennas. There are plenty of
>other newsgroups for those who favor the endless CW/no CW arguments.
>
>Roy Lewallen, W7EL

Actually, I feel into this. However after posting this message I am
killfiling the topic.

73/72 to all for now. On to important topics like how to get an
antenna up in this restricted neighborhood without any trees!

--
73 for now
Buck
N4PGW

2038. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 12:54:29 UTC
From: Grimly Curmudgeon <grimly4REMOVE@REMOVEgmail.com>
Message-ID: <om6p52hlsr7fdjd58cvv86nkbt1h56jshr@4ax.com>
Source record: 59877
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

We were somewhere around Barstow, on the edge of the desert, when the
drugs began to take hold. I remember John Kasupski <kc2hmz@wzrd.com>
saying something like:

>On Fri, 05 May 2006 19:01:42 +0100, Grimly Curmudgeon
><grimlycurmudgeon683REMOVE@hotmail.com> wrote:
>
>>We were somewhere around Barstow, on the edge of the desert, when the
>>drugs began to take hold. I remember Silent Key <cw.h@m.bands> saying
>>something like:
>>
>>>When CW is lost, new hams will be just like CB'ers and SWL's, or some
>>>other lower life form of radio hobbiest. You name it.
>>
>>Go back to playing with the dinosaurs.
>
>Best reply of the bunch.

Thank you.

If I may add something to that...
I wouldn't like to see Morse totally disappear, but I'm against its
compulsion for trainees. I fully agree that in some conditions a Morse
tone will get through where voice is an unintelligble mush, if heard at
all, but apart from prisoners tapping out messages on pipes its days as
an *essential* comms tool are pretty much over.

We've all got to move with the times and these days Morse is on a par
with a runner carrying a message in a cleft stick. There will be some
who enjoy using it and I hope they find enough fellow enthusiasts of the
arcane art to keep themselves happy while the rest of us communicate
more naturally.
--

Dave

2039. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 13:41:00 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <R8Kdnegs28T1OsHZnZ2dnUVZ_tydnZ2d@comcast.com>
Source record: 59878
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:bgho52h6dqvdf8gfuvub7tsf1a9d623rsm@4ax.com...
> On Sat, 06 May 2006 08:35:28 +0200, switcher
> <no@KijkenZeHierOokAlNaar.be> wrote:
>
>>Yes, I would buy fixed, of course, they have them in eu at www.conrad.fr
>
> Make sure they exhibit low ESR (Equivalent Series Resistance). Not
> all capacitors are especially suitable for tuning.
>
> 73's
> Richard Clark, KB7QHC

Don't use the cheap ceramic capacitors that are meant to be used for bypassing. A friend of mine used some in a tuned circuit, and he got a distorted sine wave output. In addition to possibly high ESR, the value of these capacitors changes with the instantaneous applied voltage. To be safe, use caps with mica or plastic dielectric.

Tam

2040. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 14:12:03 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <T827g.6028$DT5.5642@newsread3.news.pas.earthlink.net>
Source record: 59879
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Jozef" <jozef@metaphoria.org> wrote in message
news:1146917413.147739@r2d2.vermontel.net...
> My $0.02: Passing the CW element requires the acquisition of a skill.
> Passing the "written" element requires memorizing answers to a test where
> the answers are handed out ahead of time. Some accomplishment, eh?
>
> Jozef WB2MIC

CW is just memorizing the sounds . That is not a skill. Yes, I do have the
20 wpm extra. Got up to speed, passed the test, never used it on the air.
I still listen to some about once a month just to see if I can still get any
of the characters.

A skill is more like repairing a piece of equipment or building something.
Maybe even the ability to put together an interisting conversation instead
of the usual WX and Signal reports.

de KU4PT

2041. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 14:51:09 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <E66dne-YasjfK8HZRVn-ug@adelphia.com>
Source record: 59880
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

switcher wrote:

> The loop is 2 x 3 meter of PVC tube, bended in a circle.
> There are now 3 turns. Guess ... how many turns to have the LW
> 153-279khz ???

If 3 turns resonated with about 11000 pF (your 10 nF plus about 1 nF from the tuning capacitor) produces a resonance within that band, then raising the turns to about 9 (3 times as much for about 3^2 times as much inductance) would resonate at the same frequency with about 1/9th as much capacitance (same L*C product). Of course, those extra turns will also add quite a bit of stray capacitance between turns, so you may not be able to reach the top of the band at minimum tuning capacitance.

What kind of insulation is on the wire in the big loop? Its thickness and dielectric constant have a big effect on the total stray capacitance each turn will add.

2042. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 15:08:25 UTC
From: jawod <jawod@fuse.net>
Message-ID: <61370$445cbc13$453d9423$2432@FUSE.NET>
Source record: 59881
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Cecil Moore wrote:
> Signal Chaser wrote:
>
>> "Brenda Ann" <brendad@shinbiro.com> wrote in
>>
>>> Not everyone speaks readable English, but anyone that knows Morse can
>>> copy any language and read it at their leisure. Also, those who don't
>>> speak English well can often spell the words well enough to read...
>>>
>> In a way, it's sort of like sign-language. Two people that don't know
>> each others tongue but know sign language can still communicate.
>
>
> Of course, the same thing is possible on SSB communicating
> phonetically.
I don't think it is as effectice on SSB. Of course, you can use the
symbols that were derived from CW (like QTH) but I think morse code is a
more direct communication in these circumstances because it doesn't
involve voice/pronunciation differences between languages. The symbols
are universal and immediately understood.

Phonetic usage (alpha bravo whiskey hotel etc) is primarily based upon
English.

2043. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 15:16:10 UTC
From: jawod <jawod@fuse.net>
Message-ID: <445CBDBA.5060905@fuse.net>
Source record: 59882
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

an_old_friend wrote:
> Signal Chaser wrote:
>
>>"Ralph Mowery" <rmowery28146@earthlink.net> wrote in
>>news:nfL6g.5787$DT5.3176@newsread3.news.pas.earthlink.net:
>>
>>
>>>and the code may soon not be
>>>needed for the low bands.
>>
>>
>>But we hope that won't happen though.
>
> yes we do
>
>>We already have CB for a codeless service. You want Ham radio to be like
>>CB?
>
>
> it will not be since you can't do lots of stuff on cb that you can on
> ham radio
>
>>SC
>
>

I think we need to face the fact that ham radio, in general, is not as necessary or as "needed" as it was even 20 years ago.

It's a hobby. It remains a service but it is a hobby.

CW,SSB and any other mode you choose is not that much NEEDED.

CW being the simplest form, remains the form of choice when ALL infratructural resources are gone.

2044. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 15:31:31 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1146929491.351654.138710@e56g2000cwe.googlegroups.com>
Source record: 59883
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

jawod wrote:
> an_old_friend wrote:
> > Signal Chaser wrote:
> >

> >
> I think we need to face the fact that ham radio, in general, is not as
> necessary or as "needed" as it was even 20 years ago.
>
> It's a hobby. It remains a service but it is a hobby.
>
> CW,SSB and any other mode you choose is not that much NEEDED.
>
> CW being the simplest form, remains the form of choice when ALL
> infratructural resources are gone.

no spark gap is although it is ilegal these days

2045. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 15:35:46 UTC
From: CW <s@earthlink.net>
Message-ID: <mn37g.4377$Vn.823@newsread4.news.pas.earthlink.net>
Source record: 59885
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Memorizing a sound is no more of a skill than memorizing an answer. In any case. I can memorize sounds. I can't memorize answers. I have to know the subject to get the answer right. If people think that CW is of any importance, they will learn it whether the test requires it or not. Those who think that it will die if it is not required are just afraid that it really is useless.

"Jozef" <jozef@metaphoria.org> wrote in message
news:1146917413.147739@r2d2.vermontel.net...
> My $0.02: Passing the CW element requires the acquisition of a skill.
> Passing the "written" element requires memorizing answers to a test where
> the answers are handed out ahead of time. Some accomplishment, eh?
>
> Jozef WB2MIC
>
>
>
> "bradvk2qq" <bradvk2qq@w6ir.com> wrote in message
> news:1146887745.710806.22350@i40g2000cwc.googlegroups.com...
> > Dumb argument.
> >
> > CW is only being removed as a compulsory exam element. Oddly enough,
> > now that it is not compulsory, it's popularity is growing!
> >
>
>

2046. Voltage BalUn Frequency Range

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 15:38:57 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <-YGdneFEO4LqXMHZnZ2dneKdnZydnZ2d@adelphia.com>
Source record: 59884

I am trying to understand how to estimate the frequency capability of a voltage BalUn made by winding two insulated wires, in bifilar fashion, around a ferrite core.

For instance, I have made one, with two 23 turn windings, that exhibits a paralleled winding inductance (at 253 kHz) of about 568 uHy. The two windings in series aiding, exhibit (at 119 kHz) 2550 uHy. The two winding in series bucking, exhibit (at 5.7 MHz) and inductance of 1.15 uHy. And the capacitance between the windings is about 154 pF. The total wire length in each winding is about 1.2 m.

Neglecting for now, the high frequency roll off of the ferrite material (which is similar to type 43), is there a way to estimate over what frequency range this voltage Balun will act as a fairly ideal transformer, based on these measurements?

Thank you for your assistance.

2047. question: NEC2 w/ ground parms.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 16:35:51 UTC
From: rjtucke <rjtucke@gmail.com>
Message-ID: <1146933351.476896.129780@g10g2000cwb.googlegroups.com>
Source record: 59887

I'm trying to model a 3-wire dipole over finite ground in NEC2.
However, the SOMNEC output keeps clashing with the data in
my main code (GN card), though I input the same values.
Error is:
ERROR IN GROUND PARAMETERS -
COMPLEX DIELECTRIC CONSTANT FROM FILE IS 2.59287E-09-1.09717E+00
REQUESTED 1.20000E+01-7.00000E-02

Any thoughts?

Ross Tucker
Ariz. State Univ.

2048. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 18:39:19 UTC
From: pltrgyst <pltrgyst@spamlessxhost.org>
Message-ID: <t2rp52t3c9v3fmhivl7qc7vs89me2as5f3@4ax.com>
Source record: 59888
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On Sat, 06 May 2006 15:35:46 GMT, "CW" <s@earthlink.net> wrote:

>Memorizing a sound is no more of a skill than memorizing an answer....

But being able to pull up the correct characters from memory at the pace of an incoming stream is a skill.

I have an 85-year-old uncle who was a cw operator in the Pacific in WWII. He hasn't done anything with cw since 1946, and he can still copy around 10 wpm when I make him a bet.

I can go for several years without hearing cw and still step in and copy 15wpm easily.

Those of you who once passed 20 wpm tests and now find it a challenge to see if you "remember any of the characters" are simply not very bright.

-- Larry

2049. New program - PROPGATE

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 19:07:01 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <utGdnYIO3dPkacHZRVnysg@bt.com>
Source record: 59889

For either line-of-sight or multi-hop propagation through the
ionosphere -

- this apparently simple program computes path loss in dB between
transmitter and receiver, field strength at the receiving site, and
receiver S-meter readings. Transmitter power output can be varied
between 10 KW and 1 milliwatt.

It is educational for newcomers and of assistance to DX and
line-of-sight experimenters. It illustates how S-meters OUGHT to work.

Download program PROPGATE from website below in a few seconds and run
immediately. Its at the bottom of the list.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

2050. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 19:09:04 UTC
From: mcalhoun@ksu.edu
Message-ID: <e3is8g$d3q@unix1.cc.ksu.edu>
Source record: 59890

<< I happen to like them as they can be made from common materials with
<< excellent ruggedness.
<A 1/4WL ground plane takes one SO-239 and five pieces of
<19 inch copper wire (or stingers). :-)

AND if you make it out of stiff wire (say #12 or so), it can be folded
to fit in a grab-n-go box and then unfolded when needed! The slight bends
caused by folding/unfolding may not look neat, but it's mighty handy!

--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

2051. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 19:22:30 UTC
From: mcalhoun@ksu.edu
Message-ID: <e3it1m$e00@unix1.cc.ksu.edu>
Source record: 59891

>> The J-pole crowd seems to tout fantastic claims about this antenna and I
>>....[snip]....

>... my affinity for the j-pole comes from its simplicity and durability.
>... Mounting is a dream -- it even works if you drop the low end into a
plumbing vent pipe. (How would I know that? ;-)
>....[snip]....

I once made a J-pole from 300-ohm twinlead and tweaked it until it worked
OK while hanging from the ceiling, but when I moved it over next to a
wood-framed picture window (hung it from the window casing), the SWR went
to pot. Did I do something wrong?

(I concluded the J-pole must be VERY sensitive to its surroundings.)

--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

2052. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 19:27:45 UTC
From: mcalhoun@ksu.edu
Message-ID: <e3itbh$eb5@unix1.cc.ksu.edu>
Source record: 59892

>> I just think the great stories of rain gutters, chimneys, fire escapes,
>> etc. reflect the spirit of individual experimentation that, to me, is
>> the heart of ham radio. Maybe not the brain, but the heart.

>You must love Kurt N. Sterba's tales of using bedsprings,
>ladders, and garbage cans for antennas.

And don't forget the (QST?) pictures of "car antennas" several years
ago: two cars sitting almost bumper-to-bumper and fed with coax as a
very-low dipole at the almost-touching bumpers. Truly a "car antenna"
(but not very mobile)!

--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

2053. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 19:56:09 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <tb77g.11986$Lm5.649@newssvr12.news.prodigy.com>
Source record: 59893
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

jawod wrote:
> I don't think it is as effectice on SSB. Of course, you can use the
> symbols that were derived from CW (like QTH) but I think morse code is a
> more direct communication in these circumstances because it doesn't
> involve voice/pronunciation differences between languages. The symbols
> are universal and immediately understood.

Well then use PACTOR II with those symbols. PACTOR II will
get through when CW fails.
--
73, Cecil http://www.qsl.net/w5dxp

2054. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 20:00:06 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <af77g.11987$Lm5.840@newssvr12.news.prodigy.com>
Source record: 59894

mcalhoun@ksu.edu wrote:
> I once made a J-pole from 300-ohm twinlead and tweaked it until it worked
> OK while hanging from the ceiling, but when I moved it over next to a
> wood-framed picture window (hung it from the window casing), the SWR went
> to pot. Did I do something wrong?

What kind of metal was behind the window frame?
--
73, Cecil http://www.qsl.net/w5dxp

2055. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 20:01:13 UTC
From: jawod <jawod@fuse.net>
Message-ID: <fe52$445d00b4$453d9423$30237@FUSE.NET>
Source record: 59895
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

pltrgyst wrote:
> On Sat, 06 May 2006 15:35:46 GMT, "CW" <s@earthlink.net> wrote:
>
>
>>Memorizing a sound is no more of a skill than memorizing an answer....
>
>
> But being able to pull up the correct characters from memory at the pace of an
> incoming stream is a skill.
>
> I have an 85-year-old uncle who was a cw operator in the Pacific in WWII. He
> hasn't done anything with cw since 1946, and he can still copy around 10 wpm
> when I make him a bet.
>
> I can go for several years without hearing cw and still step in and copy 15wpm
> easily.
>
> Those of you who once passed 20 wpm tests and now find it a challenge to see if
> you "remember any of the characters" are simply not very bright.
>
> -- Larry
>
whatever

2056. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 20:26:08 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-E0F667.22260806052006@news.stben.net>
Source record: 59896
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <E66dne-YasjfK8HZRVn-ug@adelphia.com>,
John Popelish <jpopelish@rica.net> wrote:

> switcher wrote:
>
> > The loop is 2 x 3 meter of PVC tube, bended in a circle.
> > There are now 3 turns. Guess ... how many turns to have the LW
> > 153-279khz ???
>
> If 3 turns resonated with about 11000 pF (your 10 nF plus about 1 nF
> from the tuning capacitor) produces a resonance within that band, then
> raising the turns to about 9 (3 times as much for about 3^2 times as
> much inductance) would resonate at the same frequency with about 1/9th
> as much capacitance (same L*C product). Of course, those extra turns
> will also add quite a bit of stray capacitance between turns, so you
> may not be able to reach the top of the band at minimum tuning
> capacitance.
>
> What kind of insulation is on the wire in the big loop? Its thickness
> and dielectric constant have a big effect on the total stray
> capacitance each turn will add.

I guess copper 0.7 mm, insulation soft plastic .25 mm

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

2057. If Amloop is LC circuit, what about RLC circuit ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 20:38:43 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-E5E544.22384306052006@news.stben.net>
Source record: 59897
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

a damped LC ???
Does it make sense to introduce a R in the LC circuit and use it as
antenna ??
Does it change eg the Q ??? etc ...

I have tried to put formula's here
(look if they are right !
freq_low=Math.sqrt(1/(inductance*cap_high) - (resistance * resistance)
/ (4 *inductance *inductance))/(2*Math.PI)
freq_high=Math.sqrt(1/(inductance*cap_low) - (resistance * resistance)
/ (4 *inductance *inductance))/(2*Math.PI)

OK ???
)
http://users.fulladsl.be/spb13810/amlooprlc.htm

A high R seems to lower the low freq, that's interesting ...

original formula for LC circuits: (put R = 0 in previous, and you should
get the same ....)

http://users.fulladsl.be/spb13810/amloop.htm

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

2058. Re: If Amloop is LC circuit, what about RLC circuit ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 20:41:51 UTC
From: miso@sushi.com
Message-ID: <1146948111.366387.176910@j33g2000cwa.googlegroups.com>
Source record: 59898
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

The lower Q makes the LC less selective. For a tuned loop, it is not a
good idea to introduce resistance.

switcher wrote:
> a damped LC ???
> Does it make sense to introduce a R in the LC circuit and use it as
> antenna ??
> Does it change eg the Q ??? etc ...
>
> I have tried to put formula's here
> (look if they are right !
> freq_low=Math.sqrt(1/(inductance*cap_high) - (resistance * resistance)
> / (4 *inductance *inductance))/(2*Math.PI)
> freq_high=Math.sqrt(1/(inductance*cap_low) - (resistance * resistance)
> / (4 *inductance *inductance))/(2*Math.PI)
>
> OK ???
>)
> http://users.fulladsl.be/spb13810/amlooprlc.htm
>
>
> A high R seems to lower the low freq, that's interesting ...
>
>
>
> original formula for LC circuits: (put R = 0 in previous, and you should
> get the same ....)
>
> http://users.fulladsl.be/spb13810/amloop.htm
>
> --
> een appeltje te schillen met http://applefaulty.be
> http://users.fulladsl.be/spb13810/bwnl.htm
> Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
> http://www.apple.com/nl/support/imac/repairextensionprogram/

2059. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 21:23:10 UTC
From: Bob Downonit <Down@gag.net>
Message-ID: <20060506172320644440%Down@gagnet>
Source record: 59899
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On 2006-05-04 20:15:41 -0400, Silent Key <cw.h@m.bands> said:

> What's the purpose of ham radio, To have fun talking about rigs and
> weather, or to be able to communicate?
> To be able to communicate when no one else can communicate and to advance
> radio knowledge & theory?
> What does part 97 say about this? Why does the ARRL ignore it?
>
> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> other lower life form of radio hobbiest. You name it.
> SC
>
>
>
> Nonsense.

2060. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 21:25:22 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <brWdnQ3vJ8DFicDZnZ2dnUVZ_u-dnZ2d@comcast.com>
Source record: 59900
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:tb77g.11986$Lm5.649@newssvr12.news.prodigy.com...
> jawod wrote:
>> I don't think it is as effectice on SSB. Of course, you can use the
>> symbols that were derived from CW (like QTH) but I think morse code is a
>> more direct communication in these circumstances because it doesn't
>> involve voice/pronunciation differences between languages. The symbols
>> are universal and immediately understood.
>
> Well then use PACTOR II with those symbols. PACTOR II will
> get through when CW fails.
> --

Any rational evaluation of the modes available will show that there is a
combination of circumstances that make a specific mode the one that will
"get through". One can "prove" that their favorite mode is the one that
will get through under certain conditions.

Dee D. Flint, N8UZE

2061. Re: New program - PROPGATE

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 22:44:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125q9mmr06i31e1@corp.supernews.com>
Source record: 59902

Have you measured the signal strengths from a few stations of known
locations, power levels, and antenna gains, and compared them with your
program's predictions?

Roy Lewallen, W7EL

Reg Edwards wrote:
> For either line-of-sight or multi-hop propagation through the
> ionosphere -
>
> - this apparently simple program computes path loss in dB between
> transmitter and receiver, field strength at the receiving site, and
> receiver S-meter readings. Transmitter power output can be varied
> between 10 KW and 1 milliwatt.
>
> It is educational for newcomers and of assistance to DX and
> line-of-sight experimenters. It illustates how S-meters OUGHT to work.
>
> Download program PROPGATE from website below in a few seconds and run
> immediately. Its at the bottom of the list.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

2062. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 22:50:46 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <U7KdnfN8l8sxu8DZnZ2dneKdnZydnZ2d@adelphia.com>
Source record: 59901
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

switcher wrote:
> In article <E66dne-YasjfK8HZRVn-ug@adelphia.com>,
> John Popelish <jpopelish@rica.net> wrote:
(snip)
>>What kind of insulation is on the wire in the big loop? Its thickness
>>and dielectric constant have a big effect on the total stray
>>capacitance each turn will add.
>
>
> I guess copper 0.7 mm, insulation soft plastic .25 mm

Sounds like ordinary PVC insulated hook up wire. The PVC is a little
lossy, but not too bad at this low frequency. You would have a lot
more trouble with high capacitance if you were using enameled (magnet)
wire. My favorite for such things is Teflon or Tefzel insulated wire
(low loss and low dielectric constant), but it is expensive and hard
to find. Another good, but hard to find insulation is polyethylene.
It is sometimes used in low capacitance, data grade cables, but
stripping out enough for this project would be a career.

Do you think it is practical to pull 6 more turns through your pipe?

2063. Re: New program - PROPGATE

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 23:04:08 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <IX97g.2190$yU6.1302@trnddc05>
Source record: 59903

Reg Edwards wrote:
> For either line-of-sight or multi-hop propagation through the
> ionosphere -
>
> - this apparently simple program computes path loss in dB between
> transmitter and receiver, field strength at the receiving site, and
> receiver S-meter readings. Transmitter power output can be varied
> between 10 KW and 1 milliwatt.
>
> It is educational for newcomers and of assistance to DX and
> line-of-sight experimenters. It illustates how S-meters OUGHT to work.
>
> Download program PROPGATE from website below in a few seconds and run
> immediately. Its at the bottom of the list.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>

Are the formulae used in this program approximate and perhaps do not apply in circumstances in which you have no time (at this time in your life) to tell the "secrets" about? Without source code, it is difficult to "read between the lines".

John

2064. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-06 23:26:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Rga7g.73552$H71.45000@newssvr13.news.prodigy.com>
Source record: 59905
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dee Flint wrote:
> Any rational evaluation of the modes available will show that there is a
> combination of circumstances that make a specific mode the one that will
> "get through". One can "prove" that their favorite mode is the one that
> will get through under certain conditions.

I have seen PACTOR II get through from Europe with 10 watts
when there was no humanly detectable signal. All I did was
choose the correct frequency and time based on a schedule.
I detected absolutely no carrier on the S-meter or with
my ears in CW mode. The PACTOR II signal was literally
down in the noise but my SCS PTC-IIe somehow managed
to dig it out.
--
73, Cecil http://www.qsl.net/w5dxp

2065. HF Mobile - Grounding Antenna when stationary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 01:03:51 UTC
From: OZUser <ozuser@ozuser.com.au>
Message-ID: <1146965914.944527@teuthos>
Source record: 59906

As an avid 4WD SUV owner I do a lot of outback travelling (Austrlian Deserts, Cape York, Kimberly Coast) and as such have a Barrett 950 HFradio &Barrett 910 Autotune antenna installed for comms.

Would it be preferable when camped / stationary to earth the vehile to a "ground" ground = what I am looking for is a better receive signal ?????

2066. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 01:19:24 UTC
From: Dan Richardson <>
Message-ID: <3miq52hug1lh7enkv2e4u0o0q0k18hl9ij@4ax.com>
Source record: 59907

On Sun, 07 May 2006 00:39:24 GMT, Allisonnospam@nouce.bellatlantic.net
wrote:

>Measurements are required. A suitable SWR meter of some form
>is needed or your just guessing.

Judging an antenna's performance based upon SWR is a very poor
indicator of how it will radiate.

Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2067. Re: HF Mobile - Grounding Antenna when stationary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 01:21:13 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <kkiq52hvi2ikdr77s9aomqefl3o6ushjm1@4ax.com>
Source record: 59908

ORIGINAL MESSAGE:

On Sun, 7 May 2006 10:33:51 +0930, "OZUser" <ozuser@ozuser.com.au>
wrote:

>As an avid 4WD SUV owner I do a lot of outback travelling (Austrlian
>Deserts, Cape York, Kimberly Coast) and as such have a Barrett 950 HFradio
>&Barrett 910 Autotune antenna installed for comms.
>
>Would it be preferable when camped / stationary to earth the vehile to a
>"ground" ground = what I am looking for is a better receive signal ?????
>
>

********** REPLY SEPARATOR **********

Improving the ground will increase the received signal strength but
will also increase the background noise as well, so the signal to
noise ratio won't change much if any. In other words, no real
improvement.

However, an improved ground will improve your transmitted signal,
especially on the lower frequencies - 7MHz and down.

Best of all though, would be to string up a temporary dipole or
inverted vee.

Bill, W6WRT

2068. Re: HF Mobile - Grounding Antenna when stationary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 01:37:19 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <oPednY9NV8TQ0sDZRVn-iA@comcast.com>
Source record: 59909

OZUser wrote:

> As an avid 4WD SUV owner I do a lot of outback travelling (Austrlian
> Deserts, Cape York, Kimberly Coast) and as such have a Barrett 950 HFradio
> &Barrett 910 Autotune antenna installed for comms.
>
> Would it be preferable when camped / stationary to earth the vehile to a
> "ground" ground = what I am looking for is a better receive signal ?????
>
>
>

NOPE!!

But changing to a larger antenna will certainly help.

2069. Re: question: NEC2 w/ ground parms.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 03:09:30 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <Kxd7g.1668$Qq.511@clgrps12>
Source record: 59910

"rjtucke" <rjtucke@gmail.com> wrote in message
news:1146933351.476896.129780@g10g2000cwb.googlegroups.com...
> I'm trying to model a 3-wire dipole over finite ground in NEC2.
> However, the SOMNEC output keeps clashing with the data in
> my main code (GN card), though I input the same values.
> Error is:
> ERROR IN GROUND PARAMETERS -
> COMPLEX DIELECTRIC CONSTANT FROM FILE IS 2.59287E-09-1.09717E+00
> REQUESTED 1.20000E+01-7.00000E-02
>
> Any thoughts?
>
> Ross Tucker
> Ariz. State Univ.

Have you tried manually calculating the complex dielectric constant? If
there is a
difference greater than 10E-3 from the GN card an error message is
generated.

From your information above the difference is >> 10E-3. pp 55, 56 NEC 2
Users Manual.

Regards,

Frank

2070. Re: If Amloop is LC circuit, what about RLC circuit ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 03:17:05 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-2D7154.20170506052006@newsclstr02.news.prodigy.com>
Source record: 59911
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <no-E5E544.223843060520006@news.stben.net>,
switcher <no@KijkenZeHierOokAlNaar.be> wrote:

> a damped LC ??? Does it make sense to introduce a R in the LC circuit
> and use it as antenna ?? Does it change eg the Q ??? etc ...

It depends on what you want. Maybe the bandwidth is to narrow or the
tuning action is so sharp it is hard to peak it. You add resistance and
the peak does go down but the bandwidth also widens.

--
Telamon
Ventura, California

2071. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 03:34:41 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-1B2945.20344106052006@newsclstr02.news.prodigy.com>
Source record: 59912
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

In article <20060506172320644440%Down@gagnet>,
Bob Downonit <Down@gag.net> wrote:

> On 2006-05-04 20:15:41 -0400, Silent Key <cw.h@m.bands> said:
>
> > What's the purpose of ham radio, To have fun talking about rigs and
> > weather, or to be able to communicate? To be able to communicate
> > when no one else can communicate and to advance radio knowledge &
> > theory? What does part 97 say about this? Why does the ARRL
> > ignore it?
> >
> > When CW is lost, new hams will be just like CB'ers and SWL's, or
> > some other lower life form of radio hobbiest. You name it. SC
> >
> >
> >
> > Nonsense.

It is nonsense in rec.radio.shortwave. Please drop this news group from
the thread.

Another thread about CW is pointless. You guys have posted the same
comments hundreds of times on this subject.

--
Telamon
Ventura, California

2072. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 04:29:01 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445d778d$0$1017$39cecf19@news.twtelecom.net>
Source record: 59913

jimbo wrote:

> I have been trying to get an acceptable 2 meter antenna installed in my
> attic. A J-Pole seemed to me the best solution for my attic space. You
<snip>
> jimbo - AJ7IM

Here is a link to one I have had good luck with. Works quite well out
of the box. I use two chaokes, one at the base, and one 19 inches below
that. You may need to trim the length of the half wave section, so cut
it a smidge long.

http://www.hamuniverse.com/2mladjpole.html

tom
K0TAR

2073. Re: New program - PROPGATE

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 04:41:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <oeGdnVIDl-Kw5sDZRVnyvA@bt.com>
Source record: 59914

Roy, would you like your money back?

2074. Re: New program - PROPGATE

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 05:30:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <XLednUt4UocMG8DZRVnyrw@bt.com>
Source record: 59915

"John - KD5YI" wrote
> Are the formulae used in this program approximate and perhaps do not
apply
> in circumstances in which you have no time (at this time in your
life) to
> tell the "secrets" about? Without source code, it is difficult to
"read
> between the lines".
>
=======================================

John, just for your benefit I have uploaded the source code of program PROPGATE to my website. You will find it available from "Download source code from here".

I hope you are able to make sense of it. Please let me know.

Reg, G4FGQ

2075. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 06:08:30 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <z9g7g.8473$QP4.5902@fed1read12>
Source record: 59916
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"Dee Flint" <deeflint01@comcast.net> wrote in message
news:_I2dnfwDCNN4bcbZRVn-jg@comcast.com...
>
> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
> news:2uA6g.8331$QP4.4556@fed1read12...
> >
> > "Silent Key" <cw.h@m.bands> wrote in message
> > news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
> >> What's the purpose of ham radio, To have fun talking about rigs and
> >> weather, or to be able to communicate?
> >>
> >> To be able to communicate when no one else can communicate and to
advance
> >> radio knowledge & theory?
> >>
> >> What does part 97 say about this? Why does the ARRL ignore it?
> >>
> >> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> >> other lower life form of radio hobbiest. You name it.
> >>
> >> SC
> >
> > I should be able to keep this from getting to me, but sometimes I just
> > feel
> > like responding to the attempted intimidation by these elitists.
> >
> > Mate, your key is only silent from the neck, up.
> >
> > Due to dyslexia, I am unable to learn much Morse Code. I can
consistently
> > recognize about half of the alphabet and none of the numbers. Morse
Code
> > might as well be edoC esroM for all the good it will ever do me.
> >
>
> Actually your own words have proven that you can learn it. You say you
can
> consistently recognize about half the alphabet. So you have demonstrated
> your ability to learn it.
>
> Perhaps you just haven't spent enough time on it or used a poor training
```

> method (there's way too many of those around). Most people's expectations
> of how long it will take are unrealistically short. For the average
person,
> it will take 1/2 hour per day every day for 60 days.
>
> Now writing it down could be a problem due to dyslexia but there are ways
> around that. You don't have to write it down. You can ask to be allowed
to
> say the characters into a tape recorder. You could dictate the characters
> to a VE to write down for you. You could simply jot down notes and answer
> the questions and not worry about solid copy. Again if there is a risk of
> writing it backwards, you could have the VE write down what you tell
> him/her. Naturally such accomodations have to be set up in advance.
>
> > In spite of this, I manage to be a responsible member of the ham radio
> > community and I'm damn proud of my service to RACES, to my club as its
> > treasurer and to the county as a volunteer communicator. My UHF/VHF
> > points
> > in last year's Field Day exceeded the points of our HF stations
combined.
> > Lower life form, indeed! The nerve of you!
> >
>
> You must have run into some crummy people. That is not necessarily true
of
> all groups.
>
> > You may get down off your high horse (or should it be "High Morse"?) and
> > apologize for all those jabs any old time it pleases you. I'll be here.
> >
>
> You are painting with a very broad brush. There are many amateurs who do
> not jab the Technicians. These days the membership of most clubs is about
> half Technicians. Perhaps you need to run with a different club.
>
> Dee, N8UZE
>
>

Dee, please go back and re-read Silent Key's original post and my response.
I was reacting ONLY to that one person's remarks. I was actually
narrow-brushing.

While I'm an officer in just one club, I am in three and none of them have
any crummy people -- and I certainly agree with you that many amateurs don't
jab the techs. In fact, I encounter practically total acceptance. That's
why Silent Key stood out.

With regard to can/can't learn, I have the most problems with the characters
that are four or more elements long. dit-dah-dah-dit and dah-dit-dit-dah
are different, but I can't tell you what they are. I think one of them is

"P" because I remember the symmetry.

Transcribing is not the problem. If I hear dit-dah, I can write A. But if I hear dit-dah-dah-dah-dah or dah-dit-dit-dit-dit, I don't know what to write, because I don't know what those are. I cannot store the memory of what those sounds mean. Since you (apparently) don't have the problem, you won't relate.

And it isn't a lack of time or effort. I have been at this since 1993. Many methods. No appreciable successes. (I did get "D" from "dog-did-it" and "Q" from "pay-day-to-day" -- a couple of real triumphs, eh? [sarcasm intended])

This is no picnic. Thanks for understanding.

73,
"Sal"

2076. Re: New program - PROPGATE

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 06:11:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125r3rrno18f19d@corp.supernews.com>
Source record: 59917

I interpret that as a "no".

Roy Lewallen, W7EL

Reg Edwards wrote:
> Roy, would you like your money back?
>
>

2077. 3 Wired Antenna Build.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 09:42:09 UTC
From: Kevin & Natalia <sparc_man@hotmail.com>
Message-ID: <1146994748.542651@ftpsrv1>
Source record: 59918

Hi,
I want to build a new antenna.
The design I have seen is a 3 wired type each side, where the 3 wires join together at each end.
There are two of these, and the two are centred, and fed with coax.
The one I saw was flat, but understand that they could be in-verted.
I am hoping it is multi-band :)
I would like to find information on this antenna, measurements, and construction hints.
If anyone can help, could you please advise.

Regards in advance.

Kevin, ZL1KFM.

2078. Re: Elimination of CW is the only way we can make it fair

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 11:39:32 UTC
From: Guy <nospam@nospam.nospam>
Message-ID: <Y%k7g.74024$gE.7086@dukeread06>
Source record: 59919
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"Telamon" <telamon_spamshield@pacbell.net.is.invalid> wrote in message
news:telamon_spamshield-1B2945.20344106052006@newsclstr02.news.prodigy.com...

>
> Another thread about CW is pointless. You guys have posted the same
> comments hundreds of times on this subject.
>
> --
> Telamon
> Ventura, California

Amen!

I used to be a staunch defender of CW. We lost the 20, we lost the 13, we are going to lose the 5.

In today's age of materialism, self created rights and the liberal ideals of fairness, I'm just waiting for the removal of all testing requirments.

Just show up, mark A, B, C or D on 10 questions (no grading, just turn it in) and then get a certificate of attendance, a blue ribbon that says 1st place and a 1x2 vanity call sign.

Guy

2079. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 12:52:12 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <rMSdnVfW6I0PcMDZRVn-qQ@comcast.com>
Source record: 59920
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"Jack Hamilton" <jfh@acm.org> wrote in message
news:sn4d52dkqguacv21l23qb93eplhhab5feo@4ax.com...
> "Dee Flint" <deeflint01@comcast.net> wrote:
>
>>
>>"Cecil Moore" <mycall@hotmail.com> wrote in message
>>news:tb77g.11986$Lm5.649@newssvr12.news.prodigy.com...
>>> jawod wrote:
>>>> I don't think it is as effectice on SSB. Of course, you can use the
>>>> symbols that were derived from CW (like QTH) but I think morse code is
>>>> a
>>>> more direct communication in these circumstances because it doesn't
>>>> involve voice/pronunciation differences between languages. The symbols
>>>> are universal and immediately understood.
>>>
>>> Well then use PACTOR II with those symbols. PACTOR II will
>>> get through when CW fails.
>>> --
>>
>>Any rational evaluation of the modes available will show that there is a
>>combination of circumstances that make a specific mode the one that will
>>"get through". One can "prove" that their favorite mode is the one that
>>will get through under certain conditions.
>
> You are claiming that there are circumstances under which CW can be
> understood but none of the newer digital modes can? Assuming, of
> course, a skilled operator for CW and appropriate equipment for digital
> modes. Or even software for both.
>
>

That is correct. Let's just take a very simple example. PSK is one of our
newest digital modes. When there are auroral disturbances, PSK cannot be
used. The phase shifts induced by the auroral activity make it impossible
for the computer to read. These phase shifts effect all the modes. Modes
that depend on phase shifts (such as PSK) are affected the most severely and
quickly become unusable. On the other hand, CW takes on a buzzy, raspy
sound but a human operator can still decipher it although a computer will
fail. I have personally experienced these conditions. If the auroral
induced phase shifts aren't too severe even SSB will get through when PSK
has failed. I have also personally experienced this.
```

Let's take another. This time packet. Packet has nearly died out on HF because it is not robust enough. Conditions have to be almost perfect for there to be a usable packet signal. Even low levels of atmospheric static make it unusable. Slight fading also causes problems. Yet voice, CW, PSK, and RTTY will all cope with conditions that can make unusable.

Each mode has its strengths and weaknesses. For each mode, there are conditions for which it will be the best choice and conditions for which it will be the worst choice. If a person wants to maximize their communication capabilities, they need to become conversant with each mode, its characteristics, and what affects its propagation. For CW, this should include learning to copy by ear. Under some conditions, the human brain is the only computer powerful enough to decipher it.

Dee D. Flint, N8UZE

2080. Re: FCC regulation on max. antenna tower height @ 2.4GHz ???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 12:56:36 UTC
From: Korbin Dallas <korbindallas@dogeit.com>
Message-ID: <88m7g.54592$Eh4.42118@trnddc01>
Source record: 59921

On Thu, 04 May 2006 03:15:37 -0700, electro wrote:

> what is the maximum limit for antenna tower @ 2.4ghz ISM band?any link
> you know that leads to this regulation? or only the FAA authorizes such
> height regulations?
>
> thanks

In the USA there is no limit on antenna hight related to the 2.4ghz band.
Just remember you DO have limits on ERP.

There are restrictions on antenna heights based on building codes where
ever that tower may be located as well a Over all FAA Restrictions but
those have nothing to do with the radio bands being used on the tower.

KD.

2081. Re: Gain of 2.4GHz WiFi vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 13:01:46 UTC
From: Korbin Dallas <korbindallas@dogeit.com>
Message-ID: <_cm7g.54593$Eh4.25788@trnddc01>
Source record: 59922

On Tue, 02 May 2006 06:35:50 -0700, pdrunen@aol.com wrote:

> Hi Group,
>
> D-link has a vertical antenna for WiFi applications which is about a
> foot long and operates at 2.4 GHz with a stated 7dbi gain.
>
> Since the antenna is a vertical, I thought that the best low-angle
> radiation is 5/8 wave for verticals, anything longer would put the
> lobes higher and would result in a lower low angle gain.
>
> If this is the case then the antenna should only be about 3.5 inches
> long. ?
>
> I am going to check, but I bet the true antenna is only about this
> lenght and the rest of the lenght is the plastic, so the appeal is
> bigger is better.
>
> Any thoughts on this?

I suspect that antenna is a collinear antenna with elevated Feed.
Probably 1/2 of the of the antenna or more is simply transmission line.
They want the active elements be to in "Free Space" above any surrounding
equipment.
Its amazing what people will do with electronics and wonder why it does
not perform as advertised.

KD

2082. Re: HF Mobile - Grounding Antenna when stationary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 13:03:48 UTC
From: Korbin Dallas <korbindallas@dogeit.com>
Message-ID: <Uem7g.54594$Eh4.50096@trnddc01>
Source record: 59923

On Sun, 07 May 2006 10:33:51 +0930, OZUser wrote:

> As an avid 4WD SUV owner I do a lot of outback travelling (Austrlian
> Deserts, Cape York, Kimberly Coast) and as such have a Barrett 950 HFradio
> &Barrett 910 Autotune antenna installed for comms.
>
> Would it be preferable when camped / stationary to earth the vehile to a
> "ground" ground = what I am looking for is a better receive signal ?????

Switching to a Dipole antenna suspended from the trees would be a Major
step upward in performance.

Mobile antennas have very low efficiency, grounding them will not improve
that significantly relative to the dipole.

KD

2083. Re: HF Mobile - Grounding Antenna when stationary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 13:11:54 UTC
From: chuck <nospam@nospam.net>
Message-ID: <umm7g.241$t32.101@newsread2.news.pas.earthlink.net>
Source record: 59924

OZUser wrote:
> As an avid 4WD SUV owner I do a lot of outback travelling (Austrlian
> Deserts, Cape York, Kimberly Coast) and as such have a Barrett 950 HFradio
> &Barrett 910 Autotune antenna installed for comms.
>
> Would it be preferable when camped / stationary to earth the vehile to a
> "ground" ground = what I am looking for is a better receive signal ?????
>
>
>
What are the typical distances you want to cover?

Below 7 MHz and at distances in the hundreds of miles, relatively low,
horizontal antennas may perform better than a vertical whip, even if
only the same length as the whip.

Chuck

2084. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 13:14:23 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <csWdnbwoz-tYb8DZ4p2dnA@comcast.com>
Source record: 59925
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:z9g7g.8473$QP4.5902@fed1read12...
>
> "Dee Flint" <deeflint01@comcast.net> wrote in message
> news:_I2dnfwDCNN4bcbZRVn-jg@comcast.com...

[snip]
>
> Dee, please go back and re-read Silent Key's original post and my
> response.
> I was reacting ONLY to that one person's remarks. I was actually
> narrow-brushing.
>

My apologies for getting mixed up then.

> While I'm an officer in just one club, I am in three and none of them have
> any crummy people -- and I certainly agree with you that many amateurs
> don't
> jab the techs. In fact, I encounter practically total acceptance. That's
> why Silent Key stood out.
>
> With regard to can/can't learn, I have the most problems with the
> characters
> that are four or more elements long. dit-dah-dah-dit and dah-dit-dit-dah
> are different, but I can't tell you what they are. I think one of them is
> "P" because I remember the symmetry.
>
> Transcribing is not the problem. If I hear dit-dah, I can write A. But
> if
> I hear dit-dah-dah-dah-dah or dah-dit-dit-dit-dit, I don't know what to
> write, because I don't know what those are. I cannot store the memory of
> what those sounds mean. Since you (apparently) don't have the problem,
> you
> won't relate.
>
> And it isn't a lack of time or effort. I have been at this since 1993.
> Many methods. No appreciable successes. (I did get "D" from "dog-did-it"
> and "Q" from "pay-day-to-day" -- a couple of real triumphs, eh? [sarcasm
> intended])
>

If you were in this area, I would be more than happy to take a try at teaching you. The "dog-did-it" approach is one of the worst possible ones to use. It is like trying to count the dots and dashes. On longer letters it can be a problem.

For someone like yourself, it is absolutely essential that you eliminate any and all extra translation steps. The burst of sound should register directly as a letter. In other words, hear it as a letter and reflexively write a letter. Then it doesn't matter if you happen to know the actual number of dots and dashes. No counting, no "dog did it", no "helpful" memory devices at all. They will only hinder someone like yourself.

> This is no picnic. Thanks for understanding.
>

Well I just wish that I could take a stab at teaching you. There is always a sense of accomplishment in expanding your abilities in ham radio. For example, in the past couple of years, I've been exploring the digital modes and VHF/UHF propagation. It's a hoot to work Texas on 2m from here in Michigan.

Dee D. Flint, N8UZE

2085. Re: Elimination of CW is the only way we can make it fair

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 13:20:02 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <ilsr52pnia16k680t009n2i160jrerfmo6@4ax.com>
Source record: 59726
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

ORIGINAL MESSAGE:

On Sun, 7 May 2006 06:39:32 -0500, "Guy" <nospam@nospam.nospam> wrote:

>I used to be a staunch defender of CW. We lost the 20, we lost the 13, we
>are going to lose the 5.
>
>In today's age of materialism, self created rights and the liberal ideals of
>fairness, I'm just waiting for the removal of all testing requirments.
>
>Just show up, mark A, B, C or D on 10 questions (no grading, just turn it
>in) and then get a certificate of attendance, a blue ribbon that says 1st
>place and a 1x2 vanity call sign.

********** REPLY SEPARATOR **********

Complete nonsense. CW testing is being phased out because CW is
becoming obsolete, period. Don't try to read anything more into it
than that.

With all the great new digital modes available - most of which are far
superior to CW - forcing people to waste valuable hours learning an
obsolete mode is sheer folly. There are so many great things to do
with Amateur Radio. Do them!

73, Bill W6WRT

2086. Re: 3 Wired Antenna Build.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 13:37:55 UTC
From: "g. beat"
Message-ID: <PdWdnRB1Rv-mZcDZnZ2dnUVZ_t2dnZ2d@comcast.com>
Source record: 59727

"Kevin & Natalia" <sparc_man@hotmail.com> wrote in message
news:1146994748.542651@ftpsrv1...
> Hi,
> I want to build a new antenna.
> The design I have seen is a 3 wired type each side, where the 3 wires join
> together at each end.
> There are two of these, and the two are centred, and fed with coax.
> The one I saw was flat, but understand that they could be in-verted.
> I am hoping it is multi-band :)
> I would like to find information on this antenna, measurements, and
> construction hints.
> If anyone can help, could you please advise.
>
> Regards in advance.
>
> Kevin, ZL1KFM.
>

You appear to be describing a FAN or BOW-TIE DIPOLE.
http://www.hamuniverse.com/multidipole.html

http://www.cebik.com/a10/ant9.html

http://www.99main.com/~w1amf/dipole.PDF

http://www.angelfire.com/nb/ni4l/ni4ldipole.html

gb

2087. Re: Elimination of CW is the only way we can make it fair

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 14:22:35 UTC
From: Dan Richardson <>
Message-ID: <o50s521r1ne35hendphsijoa8fjcaf7l5b@4ax.com>
Source record: 59728
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

On Sun, 07 May 2006 06:20:02 -0700, Bill Turner <dezrat@copper.net>
wrote:

>Complete nonsense. CW testing is being phased out because CW is
>becoming obsolete, period. Don't try to read anything more into it
>than that.
>
>With all the great new digital modes available - most of which are far
>superior to CW - forcing people to waste valuable hours learning an
>obsolete mode is sheer folly. There are so many great things to do
>with Amateur Radio. Do them!

Quite correct Bill. Commercial and military have dropped Morse code
for the very reasons you stated.

In this day and age, requiring proficiency in Morse code for a radio
license would be as requiring proficiency in horse husbandry in order
to get a driver's license.

Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2088. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 15:20:41 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1147015241.370592.9180@g10g2000cwb.googlegroups.com>
Source record: 59729
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

OK folks. All I hear is whining about how things are changing. So I'll ask the question again.

If you really believe that morse code is an important way to communicate that should be preserved then you need to convince other hams and potential hams to learn the code. You need to convince enough

hams to use code so its very usage generates excitement and makes people want to join in the fun. Almost self-perpetuating like it was in the 1950's.

Preaching (or complaining) to the choir on the radio fora about the abysmal state of things will not add one person to the ranks of key pounding hams.

So what are you going to do to increase the number of code practicing hams.

2089. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 18:21:56 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <08es529775gmenqhq644fnd2idqmp7mra4@4ax.com>
Source record: 59730
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

ORIGINAL MESSAGE:

On 7 May 2006 08:20:41 -0700, "John S." <hjsjms@cs.com> wrote:

>You need to convince enough
>hams to use code so its very usage generates excitement and makes
>people want to join in the fun. Almost self-perpetuating like it was
>in the 1950's.

********** REPLY SEPARATOR **********

Don't you find it odd that people need to be "convinced" to use morse?
Nobody needs to be "convinced" to use PSK31, RTTY, SSB, FM or even AM.

Life is too short to waste it "convincing" people to use a mode they
are instinctively not interested in.

The underlying problem is you want things to be like they were back in
the '50s. Well, I was licensed in 1957 and I had fun back then too,
but time marches on. Try marching along with it.

Bill, W6WRT

2090. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 18:45:30 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1147027530.355468.326330@i39g2000cwa.googlegroups.com>
Source record: 59731
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Bill Turner wrote:
> ORIGINAL MESSAGE:
>
> On 7 May 2006 08:20:41 -0700, "John S." <hjsjms@cs.com> wrote:
>
> >You need to convince enough
> >hams to use code so its very usage generates excitement and makes
> >people want to join in the fun. Almost self-perpetuating like it was
> >in the 1950's.
>
> ********** REPLY SEPARATOR **********
>
> Don't you find it odd that people need to be "convinced" to use morse?
> Nobody needs to be "convinced" to use PSK31, RTTY, SSB, FM or even AM.
>
> Life is too short to waste it "convincing" people to use a mode they
> are instinctively not interested in.
>
> The underlying problem is you want things to be like they were back in
> the '50s. Well, I was licensed in 1957 and I had fun back then too,
> but time marches on. Try marching along with it.
>
> Bill, W6WRT

Actually if you go back and re-read the entire message I think that
between the lines you might pick up that I think these guys are living
in the past. CW is all but dead and buried. All professional users of
consequence have abandoned it.

2091. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 19:08:47 UTC
From: HFguy <HFguy@connifer.net>
Message-ID: <3Br7g.1489$NB6.591@trndny03>
Source record: 59732
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dee Flint wrote:>
>
> For someone like yourself, it is absolutely essential that you eliminate any
> and all extra translation steps. The burst of sound should register
> directly as a letter. In other words, hear it as a letter and reflexively
> write a letter. Then it doesn't matter if you happen to know the actual
> number of dots and dashes. No counting, no "dog did it", no "helpful"
> memory devices at all. They will only hinder someone like yourself.

I have the same problem with the code. My brain wants to identify or
count the dit/dahs and then translate them into the character. Learning
each character as a quick burst of sound, as if it were sent at an
equivalent speed of perhaps 20-wpm, is probably the best method.
I never got beyond about 10-wpm after practicing on and off for many
years, sometimes for months at a time. I used to listen to the code
practice transmissions on W1AW every night. If the 'General' code
requirement had been 3-wpm less, I might have been a ham' decades ago
but I wanted HF phone privileges or nothing (stubborn me). I didn't have
any interest in getting a Technician license or being a Novice until it
expired because of my code limitations. I don't think learning the code
has much to do with intelligence or even motivation to a certain extent.
Some folks are just not wired for code. I could have passed the Extra
exam' in the days before the questions were available to be memorized
but that 20-wpm was the problem. I tell myself it was amateur radio's
loss. :-)

2092. Re: HF Mobile - Grounding Antenna when stationary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 19:18:27 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-7665B8.11184007052006@netnews.worldnet.att.net>
Source record: 59733

In article <1146965914.944527@teuthos>, "OZUser" <ozuser@ozuser.com.au>
wrote:

> As an avid 4WD SUV owner I do a lot of outback travelling (Austrlian
> Deserts, Cape York, Kimberly Coast) and as such have a Barrett 950 HFradio
> &Barrett 910 Autotune antenna installed for comms.
>
> Would it be preferable when camped / stationary to earth the vehile to a
> "ground" ground = what I am looking for is a better receive signal ?????
>
>
>

Ever thought about using a Ballon or Kite Antenna? Very Good for open
areas, and excellent for MF and HF Portable operations.

Me

2093. Re: If Amloop is LC circuit, what about RLC circuit ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 19:43:49 UTC
From: matt weber <matthew50@ispwest.com>
Message-ID: <jbjs52d7nspv5k1umfa1pkgpiv0di790po@4ax.com>
Source record: 59736
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

```
On 6 May 2006 13:41:51 -0700, miso@sushi.com wrote:

>The lower Q makes the LC less selective. For a tuned loop, it is not a
>good idea to introduce resistance.
>
>
>switcher wrote:
>> a damped LC ???
>> Does it make sense to introduce a R in the LC circuit and use it as
>> antenna ??
>> Does it change eg the Q ??? etc ...
It certainly does. One of the ways to calculate Q is
Resistance/Reactance. By definition, increasing resistance will lower
Q.

Q is also the bandwidth/frequency at the point the signal is down to
half peak.
>>
>> I have tried to put formula's here
>> (look if they are right !
>> freq_low=Math.sqrt(1/(inductance*cap_high) - (resistance * resistance )
>> / (4 *inductance *inductance))/(2*Math.PI)
>> freq_high=Math.sqrt(1/(inductance*cap_low) - (resistance * resistance )
>> / (4 *inductance *inductance))/(2*Math.PI)
>>
>> OK ???
>> )
>> http://users.fulladsl.be/spb13810/amlooprlc.htm
>>
>>
>> A high R seems to lower the low freq, that's interesting ...
>>
>>
>>
>> original formula for LC circuits: (put R = 0 in previous, and you should
>> get the same ....)
>>
>> http://users.fulladsl.be/spb13810/amloop.htm
>>
>> --
>> een appeltje te schillen met http://applefaulty.be
>> http://users.fulladsl.be/spb13810/bwnl.htm
>> Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
>> http://www.apple.com/nl/support/imac/repairextensionprogram/
```

2094. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 19:54:47 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-779BBD.21544707052006@news.stben.net>
Source record: 59734
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <U7KdnfN8l8sxu8DZnZ2dneKdnZydnZ2d@adelphia.com>,
John Popelish <jpopelish@rica.net> wrote:

> switcher wrote:
> > In article <E66dne-YasjfK8HZRVn-ug@adelphia.com>,
> > John Popelish <jpopelish@rica.net> wrote:
> (snip)
> >>What kind of insulation is on the wire in the big loop? Its thickness
> >>and dielectric constant have a big effect on the total stray
> >>capacitance each turn will add.
> >
> >
> > I guess copper 0.7 mm, insulation soft plastic .25 mm
>
> Sounds like ordinary PVC insulated hook up wire. The PVC is a little
> lossy, but not too bad at this low frequency. You would have a lot
> more trouble with high capacitance if you were using enameled (magnet)
> wire. My favorite for such things is Teflon or Tefzel insulated wire
> (low loss and low dielectric constant), but it is expensive and hard
> to find. Another good, but hard to find insulation is polyethylene.
> It is sometimes used in low capacitance, data grade cables, but
> stripping out enough for this project would be a career.
>
> Do you think it is practical to pull 6 more turns through your pipe?

It is possible .... I'll look for some time ...
I have the right tools ..

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

2095. Re: If Amloop is LC circuit, what about RLC circuit ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 19:56:56 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-28ED16.21565607052006@news.stben.net>
Source record: 59735
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article
<telamon_spamshield-2D7154.20170506052006@newsclstr02.news.prodigy.com>,
Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote:

> It depends on what you want. Maybe the bandwidth is to narrow or the
> tuning action is so sharp it is hard to peak it. You add resistance and
> the peak does go down but the bandwidth also widens.

I was already thinking: if DRM is 12khz wide (am I right ?), then it
might be a tuned loop is too narrow ??

So an R might help ???

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

2096. Looking for UHF only TV Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 20:18:34 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-AC3BB9.15183307052006@newsclstr02.news.prodigy.com>
Source record: 59737

I have been looking for a UHF only outside TV antenna or plans on how to construct a double bow tie like antenna. Right now I have a 50 foot short run of RG-59 to an upstairs patio post. At the end of the coax run I user an old TV antenna transformer to interface to the 300 ohm lead from a single bow tie (that came with old TV). This setup works but surely there is something better. We are not that far from the transmission sites but an inside antenna will not work.

Dick AA5VU

2097. Re: Looking for UHF only TV Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 20:29:53 UTC
From: "g. beat"
Message-ID: <ruOdneHpY99UxcPZnZ2dnUVZ_uidnZ2d@comcast.com>
Source record: 59738

"Dick, AA5VU" <aa5vuNOSPAM@arrl.net> wrote in message
news:aa5vuNOSPAM-AC3BB9.15183307052006@newsclstr02.news.prodigy.com...
>I have been looking for a UHF only outside TV antenna or plans on
> how to construct a double bow tie like antenna. Right now I have a 50
> foot short run of RG-59 to an upstairs patio post. At the end of the
> coax run I user an old TV antenna transformer to interface to the 300
> ohm lead from a single bow tie (that came with old TV). This setup
> works but surely there is something better. We are not that far from
> the transmission sites but an inside antenna will not work.
>
> Dick AA5VU

Most Radio Shacks still sell the Antenna Craft OEM - UHF product.
Top of the line (mfg) is Weingard product (BTW both made in Burlington, IA)

gb

2098. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 20:32:45 UTC
From: F4DRH <F4DRH@wanadoo.fr>
Message-ID: <445e596a$0$21305$8fcfb975@news.wanadoo.fr>
Source record: 59739

Hello Harbin

The bottom of the J-Pole antenna is a 1/4 wave length to transform the high impedance of the 1/2 wave length above into a lower impedance (close to 50 ohms). The impedance of that 1/4WL sould be Z = SQUARE (Z coax X Z antenna) .... in that case Z antenna is the impedance of the 1/2 WL (usually several hundreds ohms)
That's why the space between elements as well as there diameter is important.

You certainly know the Topfkreis ... which is the same antenna ... 1/2 WL + 1/4 WL ... but with another technical realisation.

Hoping it helps.

Regards

Jean-Marc
F4DRH
www.barbaxoops.com

"Harbin" <harbinjr@adelphia.net> a écrit dans le message de news:
d92dnVBi_rDdB8fZRVn-hA@adelphia.com...
Howdy:
In a j-pole the 1/4 wave element, and the bottom 1/4 of the 3/4
element should act as a transmission line, right? So... shouldn't these
elements be as very close to each other to cancel one another out, closer
than what I see on most j-poles? Or is this space have something to do
with the impedance of the antenna?

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv
http://media.putfile.com/La-Gran-Marcha
The Mexican Solution:
http://www.centerforsecuritypolicy.org/index.jsp?section=papers&code=06-D_18

-

2099. Re: Looking for UHF only TV Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 21:23:07 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97BC929699A1spectrumhogstarbandn@198.186.192.196>
Source record: 59740

> I have been looking for a UHF only outside TV antenna or plans on
> how to construct a double bow tie like antenna.

Our True Value hardware store has them.... then again, we
only have UHF TV translators here in where I'm located so maybe that is
why they stock them.

I believe Radio shack has a model available, too, but the
double stacked bow-tie antenna I bought for $24 at the hardware store was
superior.

Ed K7AAT

2100. AM/MW Loop Antenna - Inductive Coupling -vice- Resistor Spoiler

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 21:57:19 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1147039039.586791.79380@v46g2000cwv.googlegroups.com>
Source record: 59741
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Switcher,

AM/MW Loop Antenna - Inductive Coupling -vice- Resistor Spoiler
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/9407

To some degree all Circuits are L+C+R
- - - Although anyone of the three may not be significant
enough to factor into the Circuit Design parameters.
- - - Hence an AM/MW Loop Antenna is simply presented
as an L+C Circuit.

"IF" you were to use a Resistor in the Circuit of an
AM/MW Loop Antenna it would be 'because' the Radio
that you were using it with was being OverLoaded by
the Signal from the Loop Antenna.

You could simply achieve the same thing by varying the
AM/MW Loop Antenna 'coupling' with the Radio -by- Moving
the Loop Antenna nearer-to -or- farther-away from the Radio.

AM/MW LOOP ANTENNA COUPLING :
* The Coil of the external AM/MW Loop Antenna
is an Inductor {RF Transformer Coil}
* The Coil of the Radio's internal AM/MW Antenna
is an Inductor {RF Transformer Coil}
* Together the Two Coils form an RF Transformer
Moving the Two Coils and changing their relationship
to each other varies the "Coupling" between them.

THINGS TO READ :

READ - AM/MW DXing = Your Radio + Lazy Susan + Loop Antenna
for better AM/MW Band Reception and DXing with an AM Radio.
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1787
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1811

READ - Using the Built-in WHIP Antenna for better AM/MW Band
Reception and DXing with an AM Radio.
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/875

READ - AM/MW Radio Reception : Whip Antenna Up? -or- Down?
for better AM/MW Band Reception and DXing with an AM Radio.
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1105

READ - AM/MW Random Wire Antenna Tuner using a AM/MW Loop
Antenna for better AM/MW Band Reception and DXing with an AM Radio.

http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1150

READ - "HOW TO USE" a AM/MW Loop Antenna with a 'portable'
AM/FM Shortwave for better AM/MW Band Reception and DXing
with an AM Radio.
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/1865

READ - For Improved AM/MW DXing
- Think Loop Antenna as a Coupler Tuner for better
AM/MW Band Reception and DXing with an AM Radio.
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/2240
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/2272
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/2769

READ - Two 'basic' optional In-Door Antennas for better
AM/MW Band and FM Band using a 'portable' AM/FM Radio.
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/2936

READ - Long "LoopStick" Antenna for AM/MW/BCB DXing
-by- Bill Bowden
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/3075
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/3100
The "L O N G" -Liner- {Skinny} Loop Antenna for better
AM/MW Band Reception and DXing with an AM Radio.

READ - Every Grundig Satellit 800 M Owner's Dream...
a 21" Lazy Susan for better AM/MW Band Reception and
AM/MW DXing :o)
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/4406

READ - Setting-Up the Sony ICF-SW7600GR with a Loop Antenna
on a Lazy Susan for better AM/MW Band Reception and DXing.
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/5886

RESISTOR AS A SPOILER IN AN AM/MW LOOP ANTENNA CIRCUIT :
-However- If you must use a Resistor in the Circuit of the
AM/MW Loop Antenna - Consider using a Series 1000 Ohm (1K)
Potentiometer (Pot) - So that you could adjust and fine-tune
the Circuit to achieve the Maximum Signal without OverLoading
the Radio. Hook the "Pot" up with the two ends connected
together and the Center Wiper as teh other end of the
Resistance Element of the Circuit. With the Wipper at either
end the Pot is out of the Circuit. As the Wiper is moved
from one of the ends to the Center of the Pot the amount
of Resistance in the Circuit 'increases' and the RF Signal
{EMF Field} of the Loop Antenna is Decreased. Wiring-Up
the Pot this way makes the Resistance Curve non-liner from
"0" to 500 Ohms sort of more like an Audio Taper Pot.

and now you know - iane ~ RHF
.
Shortwave Listener Antennas => http://tinyurl.com/ogvcf
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/

SWL Antenna Group => http://tinyurl.com/ogvcf
.
The Shortwave Listener's Blessing :
SWL BLESSING => http://tinyurl.com/s2bjm
May You Never Tire of Listening to the Radio and Always
have Strong Signals and Noise Free Reception ~ RHF {ibid}
http://groups.yahoo.com/group/Shortwave-SWL-Antenna/message/9233
.
.
.
. .
.

2101. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 22:57:05 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1147042625.171198.49090@j73g2000cwa.googlegroups.com>
Source record: 59742
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

If you search the archives of this group (for example with Google), you wil find some good info about loops for low frequency reception. One way to keep the loop's effective self capacitance down is to wind it with the wires spaces apart some. It is common to use at least one wire diameter spacing between wires, so it would be at least two times the wire diameter, center to center. You can also put, say, 11 pieces of wooden dowel or PVC pipe in a circle. Number them in sequence. Then wind the wire outside 1, inside 2, outside 3, ... outside 11, inside 1, outside 2, ... so that each successive turn is on the opposite side of each particular pipe. (The axis of each pipe is perpendicular to the plane of the circle.) As you can see, you must use an odd number of posts in this construction.

There is benefit to making the loop very symmetrical about a vertical plane, because local sources of noise are likely to be electric field which is perpendicular to the earth, and will be rejected by such a symmetrical antenna.

Cheers,
Tom

2102. Re: Looking for UHF only TV Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 23:10:39 UTC
From: aRKay <REMOVEarkay@qsl.net>
Message-ID: <REMOVEarkay-2A27F1.18103907052006@newsclstr02.news.prodigy.com>
Source record: 59743

In article <ruOdneHpY99UxcPZnZ2dnUVZ_uidnZ2d@comcast.com>,
"g. beat" <@<spam protected>> wrote:

> "Dick, AA5VU" <aa5vuNOSPAM@arrl.net> wrote in message
> news:aa5vuNOSPAM-AC3BB9.15183307052006@newsclstr02.news.prodigy.com...
> >I have been looking for a UHF only outside TV antenna or plans on
> > how to construct a double bow tie like antenna. Right now I have a 50
> > foot short run of RG-59 to an upstairs patio post. At the end of the
> > coax run I user an old TV antenna transformer to interface to the 300
> > ohm lead from a single bow tie (that came with old TV). This setup
> > works but surely there is something better. We are not that far from
> > the transmission sites but an inside antenna will not work.
> >
> > Dick AA5VU
>
> Most Radio Shacks still sell the Antenna Craft OEM - UHF product.
> Top of the line (mfg) is Weingard product (BTW both made in Burlington, IA)
>
> gb

I order a Radio Shack inside antenna that was junk and sent it back.
May have to find a Weingard dealer.

2103. Re: Looking for UHF only TV Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 23:31:01 UTC
From: Buck <not@this.time>
Message-ID: <kl0t525pvkgrjlbr6128dgcj332bbvjuf1@4ax.com>
Source record: 59744

On Sun, 07 May 2006 20:18:34 GMT, "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
wrote:

>I have been looking for a UHF only outside TV antenna or plans on
>how to construct a double bow tie like antenna. Right now I have a 50
>foot short run of RG-59 to an upstairs patio post. At the end of the
>coax run I user an old TV antenna transformer to interface to the 300
>ohm lead from a single bow tie (that came with old TV). This setup
>works but surely there is something better. We are not that far from
>the transmission sites but an inside antenna will not work.
>
>Dick AA5VU

home depot has "HDTV" antennas. They are primarily UHF with a couple
of VHF elements scattered in them. They, or Lowes may have what you
are looking for.

Also 300 ohm twin-lead, if properly installed, will bring in a
stronger signal than the coax will.

hope this helps

--
73 for now
Buck
N4PGW

2104. Re: Looking for UHF only TV Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-07 23:32:08 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <ah0t52t08o0bj6q6v2vq0a39jq8vncak3g@4ax.com>
Source record: 59745

On Sun, 07 May 2006 20:18:34 GMT, "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
wrote:

>I have been looking for a UHF only outside TV antenna or plans on
>how to construct a double bow tie like antenna. Right now I have a 50
>foot short run of RG-59 to an upstairs patio post. At the end of the
>coax run I user an old TV antenna transformer to interface to the 300
>ohm lead from a single bow tie (that came with old TV). This setup
>works but surely there is something better. We are not that far from
>the transmission sites but an inside antenna will not work.

I've got one of these.

http://www.starkelectronic.com/wnpr8800.htm

The half-size (4-bay) would probably do it for you.

With a Channel Master 7778 pre-amp I'm receiving all of the Phoenix
hi-def channels from 100+ miles away.

Probably just the pre-amp would fix your problem.

2105. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 00:10:39 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <deydnaGXqffhEcPZRVn-tw@comcast.com>
Source record: 59746
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Silent Key wrote:

> What's the purpose of ham radio, To have fun talking about rigs and
> weather, or to be able to communicate?
>
>SNIPPED

In the olden days, the purpose was well understood. It was, and still is, to become proficient in one or more aspects of radio communication, to provide a skilled base of technically proficient people who pursue an interest in some aspect of radio communication technology and art for personal gain without any financial interest, reward or compensation from the activity.

It is NOT to open a box, plug it in, connect a wire, and, when it doesn't work, get on the internet and ask for help.

I advocate for a code test for the following reason. I value what I have to plan for, work for, sacrifice for, and invest my time for.

I value the reward for 18 months of practicing Morse Code every night for one hour a night. That's an investment.

I value the reward of studying, really studying, to understand the electronics for my Technician License. That's an investment.

I value the reward of studying, really studying, to understand the electronics for my General License. That's an investment.

I value the reward of studying, really studying, to understand the electronics for my Advanced License. That's an investment.

I value the reward of studying, really studying, to understand the electronics for my Extra License. That's an investment.

It took me 45 years to progress from Novice to Extra. [Note: I was 25 wpm CW proficient in the 1960s. Marriage, Family, Profession took priority over Ham Radio.]

I teach Ham Radio classes. I'm a registered ARRL instructor. I'm not invited to teach too often in these days. I DO NOT teach Q&A. I WILL NOT teach Q&A. I teach understanding of what's behind the Q&A.

My Technician classes begin with ELEMENT 1. It takes 3 to 4 weeks at two hours a week for classes to pass Element 1. It takes 10 to 12 additional

weeks of a two hour class one night a week plus homework to pass the Technician exam.

Those who choose this path have made an investment of their time and effort. I hope they value that investment.

I WILL NOT support a 4 hour session on a Saturday morning and hooray! You are now a ham!!!

BTW, FWIW, I'm still learning from the skills and experiences of Roy, Cecil, Rick, et al on the antenna n.g.

/S/ Dave, W1MCE

2106. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 00:20:27 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147047627.949564.83230@y43g2000cwc.googlegroups.com>
Source record: 59747
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dave wrote:
> Silent Key wrote:
>
> > What's the purpose of ham radio, To have fun talking about rigs and
> > weather, or to be able to communicate?
> >
> >SNIPPED
the activity.
>
> It is NOT to open a box, plug it in, connect a wire, and, when it
> doesn't work, get on the internet and ask for help.
>
> I advocate for a code test for the following reason. I value what I have
> to plan for, work for, sacrifice for, and invest my time for.
>
> I value the reward for 18 months of practicing Morse Code every night
> for one hour a night. That's an investment.
i just wanta return on my 5 years investment I have nothing to show
for it

2107. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 00:23:33 UTC
From: Brenda Ann <brendad@shinbiro.com>
Message-ID: <e3m2uj$d0g$1@news2.kornet.net>
Source record: 59748
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Dave" <W1MCE@comcast.net> wrote in message
news:deydnaGXqffhEcPZRVn-tw@comcast.com...
> Silent Key wrote:
>
>> What's the purpose of ham radio, To have fun talking about rigs and
>> weather, or to be able to communicate? SNIPPED
>
> In the olden days, the purpose was well understood. It was, and still is,
> to become proficient in one or more aspects of radio communication, to
> provide a skilled base of technically proficient people who pursue an
> interest in some aspect of radio communication technology and art for
> personal gain without any financial interest, reward or compensation from
> the activity.
>
> It is NOT to open a box, plug it in, connect a wire, and, when it doesn't
> work, get on the internet and ask for help.
>
> I advocate for a code test for the following reason. I value what I have
> to plan for, work for, sacrifice for, and invest my time for.
>
> I value the reward for 18 months of practicing Morse Code every night for
> one hour a night. That's an investment.
>
> I value the reward of studying, really studying, to understand the
> electronics for my Technician License. That's an investment.
>
> I value the reward of studying, really studying, to understand the
> electronics for my General License. That's an investment.
>
> I value the reward of studying, really studying, to understand the
> electronics for my Advanced License. That's an investment.
>
> I value the reward of studying, really studying, to understand the
> electronics for my Extra License. That's an investment.
>
> It took me 45 years to progress from Novice to Extra. [Note: I was 25 wpm
> CW proficient in the 1960s. Marriage, Family, Profession took priority
> over Ham Radio.]
>
> I teach Ham Radio classes. I'm a registered ARRL instructor. I'm not
> invited to teach too often in these days. I DO NOT teach Q&A. I WILL NOT

> teach Q&A. I teach understanding of what's behind the Q&A.
>
> My Technician classes begin with ELEMENT 1. It takes 3 to 4 weeks at two
> hours a week for classes to pass Element 1. It takes 10 to 12 additional
> weeks of a two hour class one night a week plus homework to pass the
> Technician exam.
>
> Those who choose this path have made an investment of their time and
> effort. I hope they value that investment.
>
> I WILL NOT support a 4 hour session on a Saturday morning and hooray! You
> are now a ham!!!
>
> BTW, FWIW, I'm still learning from the skills and experiences of Roy,
> Cecil, Rick, et al on the antenna n.g.
>
>

Bravo! BRA-VO!!

(really, it's good to see someone else that appreciates the value of earning what you get, instead of insisting it be handed to you)

2108. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 00:34:33 UTC
From: hot-ham-and-cheese@hotmail.com
Message-ID: <1147048473.395078.29380@j33g2000cwa.googlegroups.com>
Source record: 59749
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Cecil Moore wrote:
> Signal Chaser wrote:
> > Call the FCC, email the ARRL. Tell them you don't want to see ham radio
> > dumbed down anymore, for the good of the service and the good of country.
>
> Let's require a EE degree instead of Morse Code.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Probably easier to get for some people, and could actually lead to a
good paying career in electronics.

2109. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 00:41:10 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147048870.192257.166140@v46g2000cwv.googlegroups.com>
Source record: 59750
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
hot-ham-and-cheese@hotmail.com wrote:
> Cecil Moore wrote:
> > Signal Chaser wrote:
> > > Call the FCC, email the ARRL. Tell them you don't want to see ham radio
> > > dumbed down anymore, for the good of the service and the good of country.
> >
> > Let's require a EE degree instead of Morse Code.
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
>
> Probably easier to get for some people, and could actually lead to a
> good paying career in electronics.

indeed it would be for me
```

2110. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 01:01:34 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <OLw7g.73914$H71.5343@newssvr13.news.prodigy.com>
Source record: 59751
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Showing that : Now days, this is nothing much more than a
Glorified Citizens Band? 10-4 good buddy! , and now on to the
Sspectrum Auctioneer! SOMEONE has to have a better use for it!
All those good numbers, see u on the flip-flop! (formerly) NN7K

an_old_friend wrote:
> hot-ham-and-cheese@hotmail.com wrote:
>

2111. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 01:05:28 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445e9958$0$1014$39cecf19@news.twtelecom.net>
Source record: 59752

F4DRH wrote:
> Hello Harbin
>
> The bottom of the J-Pole antenna is a 1/4 wave length to transform the
> high impedance of the 1/2 wave length above into a lower impedance
> (close to 50 ohms). The impedance of that 1/4WL sould be Z = SQUARE (Z
> coax X Z antenna) .... in that case Z antenna is the impedance of the
> 1/2 WL (usually several hundreds ohms)
> That's why the space between elements as well as there diameter is
> important.
>
> You certainly know the Topfkreis ... which is the same antenna ... 1/2
> WL + 1/4 WL ... but with another technical realisation.
>
> Hoping it helps.
>
> Regards
>
> Jean-Marc
> F4DRH

Jean-Marc

Thanks for mentioning the Topfkreis. It seems like it should work much
better, and is so obvious once you see it. I will have to make one.

tom
K0TAR

2112. Re: HF Mobile - Grounding Antenna when stationary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 01:45:38 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <125t8q0opiuqsb4@corp.supernews.com>
Source record: 59753

OZUser wrote:
> As an avid 4WD SUV owner I do a lot of outback travelling (Austrlian
> Deserts, Cape York, Kimberly Coast) and as such have a Barrett 950 HFradio
> &Barrett 910 Autotune antenna installed for comms.
>
> Would it be preferable when camped / stationary to earth the vehile to a
> "ground" ground = what I am looking for is a better receive signal ?????
>
>
>
I do not believe anything will improve the receive on the antenna you
are using, what ever it may be. If you are going to be parked, put up
"stick dipole" just as high as you can. That will help recieve and
transmit.

Butch Magee KF5DE

2113. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 02:07:15 UTC
From: Buck <not@this.time>
Message-ID: <ct9t52h8cqn7lem8m9jrbajdfklug8p9ii@4ax.com>
Source record: 59754

On Sun, 07 May 2006 20:05:28 -0500, Tom Ring <news0002@taring.org>
wrote:

>
>Thanks for mentioning the Topfkreis. It seems like it should work much
>better, and is so obvious once you see it. I will have to make one.
>
>tom
>K0TAR

OK, I did a search, unsuccessfully, on Topfkreis. What is it and
where do I find it?

thanks
Buck

--
73 for now
Buck
N4PGW

2114. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 02:37:16 UTC
From: CW <s@earthlink.net>
Message-ID: <w9y7g.4969$Vn.3291@newsread4.news.pas.earthlink.net>
Source record: 59755
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

You could have shortened that up considerably. Short version: "I did it so
everyone else should have to". See how easy that was? Not an original idea
though.

"Dave" <W1MCE@comcast.net> wrote in message
news:deydnaGXqffhEcPZRVn-tw@comcast.com...
> Silent Key wrote:
>
> > What's the purpose of ham radio, To have fun talking about rigs and
> > weather, or to be able to communicate?
> >
> >SNIPPED
>
> In the olden days, the purpose was well understood. It was, and still
> is, to become proficient in one or more aspects of radio communication,
> to provide a skilled base of technically proficient people who pursue an
> interest in some aspect of radio communication technology and art for
> personal gain without any financial interest, reward or compensation
> from the activity.
>
> It is NOT to open a box, plug it in, connect a wire, and, when it
> doesn't work, get on the internet and ask for help.
>
> I advocate for a code test for the following reason. I value what I have
> to plan for, work for, sacrifice for, and invest my time for.
>
>

2115. Re: If Amloop is LC circuit, what about RLC circuit ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 06:17:35 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-5A0BF8.23173507052006@newsclstr02.news.prodigy.com>
Source record: 59757
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <no-28ED16.21565607052006@news.stben.net>,
switcher <no@KijkenZeHierOokAlNaar.be> wrote:

> In article
> <telamon_spamshield-2D7154.20170506052006@newsclstr02.news.prodigy.com
> >,
> Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote:
>
> > It depends on what you want. Maybe the bandwidth is to narrow or
> > the tuning action is so sharp it is hard to peak it. You add
> > resistance and the peak does go down but the bandwidth also widens.
>
> I was already thinking: if DRM is 12khz wide (am I right ?), then it
> might be a tuned loop is too narrow ??
>
> So an R might help ???

If the tuned loop bandwidth is to narrow then you can deliberately
spoil the Q of the loop by adding resistance and broaden the bandwidth.

I have not calculated it but I expect a LC loop operating in the MHz
range would have a bandwidth greater than 12 KHz so I do not expect you
will have a problem.

--
Telamon
Ventura, California

2116. Re: If Amloop is LC circuit, what about RLC circuit ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 07:01:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <125tr64j09u0le7@corp.supernews.com>
Source record: 59758
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Telamon wrote:
> In article <no-28ED16.21565607052006@news.stben.net>,
> switcher <no@KijkenZeHierOokAlNaar.be> wrote:
>
>> In article
>> <telamon_spamshield-2D7154.20170506052006@newsclstr02.news.prodigy.com
>>> ,
>> Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote:
>>
>>> It depends on what you want. Maybe the bandwidth is to narrow or
>>> the tuning action is so sharp it is hard to peak it. You add
>>> resistance and the peak does go down but the bandwidth also widens.
>> I was already thinking: if DRM is 12khz wide (am I right ?), then it
>> might be a tuned loop is too narrow ??
>>
>> So an R might help ???
>
> If the tuned loop bandwidth is to narrow then you can deliberately
> spoil the Q of the loop by adding resistance and broaden the bandwidth.
> . . .

A really quick back-of-the envelope look at the problem indicates that adding a resistance won't make the signal any stronger when the loop is tuned away from the peak. It'll just make the signal weaker when it is tuned to the peak. So it's "wider", but no better at any tuning setting but worse at and near the peak. To check on my calculation, try it: connect and disconnect the resistor at various tuning settings, on and off peak. Does it make the signal any stronger at any setting?

The only time there would be any advantage to adding an R to widen the bandwidth is if it's so narrow that it distorts a modulated signal due to uneven response across the audio bandwidth. This would mean at least several dB variation over a couple of kHz for voice SSB or over 10 kHz for broadcast quality AM.

Roy Lewallen, W7EL

2117. Re: If Amloop is LC circuit, what about RLC circuit ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 07:27:05 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-D72616.00270408052006@newsclstr02.news.prodigy.com>
Source record: 59759
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <125tr64j09u0le7@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:

> Telamon wrote:
> > In article <no-28ED16.21565607052006@news.stben.net>,
> > switcher <no@KijkenZeHierOokAlNaar.be> wrote:
> >
> >> In article
> >> <telamon_spamshield-2D7154.20170506052006@newsclstr02.news.prodigy.com
> >>> ,
> >> Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote:
> >>
> >>> It depends on what you want. Maybe the bandwidth is to narrow or
> >>> the tuning action is so sharp it is hard to peak it. You add
> >>> resistance and the peak does go down but the bandwidth also widens.
> >> I was already thinking: if DRM is 12khz wide (am I right ?), then it
> >> might be a tuned loop is too narrow ??
> >>
> >> So an R might help ???
> >
> > If the tuned loop bandwidth is to narrow then you can deliberately
> > spoil the Q of the loop by adding resistance and broaden the bandwidth.
> > . . .
>
> A really quick back-of-the envelope look at the problem indicates that
> adding a resistance won't make the signal any stronger when the loop is
> tuned away from the peak. It'll just make the signal weaker when it is
> tuned to the peak. So it's "wider", but no better at any tuning setting
> but worse at and near the peak. To check on my calculation, try it:
> connect and disconnect the resistor at various tuning settings, on and
> off peak. Does it make the signal any stronger at any setting?
>
> The only time there would be any advantage to adding an R to widen the
> bandwidth is if it's so narrow that it distorts a modulated signal due
> to uneven response across the audio bandwidth. This would mean at least
> several dB variation over a couple of kHz for voice SSB or over 10 kHz
> for broadcast quality AM.

I read his post correctly his concern is a 12 KHz wide DRM signal and
that the tuned loop response will be to sharp and narrow. Firstly he
needs to build the loop and sweep it to see if has a problem to begin
with. Parasitics may cause the loop response to be wide enough that 12
KHz will not be a problem. If it turns out it does he can add
resistance, which will decrease the peak response and broaden it. Adding

resistance will cause the loop to not work as well but that is the price you pay for greater bandwidth.

--
Telamon
Ventura, California

2118. Re: If Amloop is LC circuit, what about RLC circuit ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 08:06:07 UTC
From: w8ji@akorn.net
Message-ID: <1147075567.862661.227110@i40g2000cwc.googlegroups.com>
Source record: 59760
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Telamon wrote:
> I read his post correctly his concern is a 12 KHz wide DRM signal and
> that the tuned loop response will be to sharp and narrow. Firstly he
> needs to build the loop and sweep it to see if has a problem to begin
> with. Parasitics may cause the loop response to be wide enough that 12
> KHz will not be a problem. If it turns out it does he can add
> resistance, which will decrease the peak response and broaden it. Adding
> resistance will cause the loop to not work as well but that is the price
> you pay for greater bandwidth.

Normally the best thing is to over-couple the loop to the receiver,
rather than loading it with a resistor.

The Q of the loop is not only a function of the loss resistance and L/C
values, it is also a function of the loop loading caused by the
feedline/receiver combination. That introduces resistance to the
system.

Adding a resistor is the last think I'd do. If I had a bandwidth
problem in a resonant loop, I'd simply overcouple to the feedline and
let the feedline/receiver resistance load the antenna.

73 Tom

2119. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 10:03:23 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <uc-dnbQrpbvxisLZnZ2dnUVZ_vmdnZ2d@comcast.com>
Source record: 59761
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

<hot-ham-and-cheese@hotmail.com> wrote in message
news:1147048473.395078.29380@j33g2000cwa.googlegroups.com...
>
> Cecil Moore wrote:
>> Signal Chaser wrote:
>> > Call the FCC, email the ARRL. Tell them you don't want to see ham
>> > radio
>> > dumbed down anymore, for the good of the service and the good of
>> > country.
>>
>> Let's require a EE degree instead of Morse Code.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
> Probably easier to get for some people, and could actually lead to a
> good paying career in electronics.
>

The only problem with the EEs that I run across, is they know just enough to
get themselves hurt and/or burn their homes down when they try to work with
ELECTRICITY instead of electronics. It seems that at 240vac, all their
common sense goes out the window.

-n6ojn
--

Steve @ Noon-Air Heating & A/C
Noon-Air@comcast.net

Life is what happens while you were making other plans

2120. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 11:05:51 UTC
From: nm5k@wt.net
Message-ID: <1147086351.769258.98590@v46g2000cwv.googlegroups.com>
Source record: 59762
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

>I bet no one from the antenna newsgroup bothers to respond because the
>topic doesn't have anything to do with antennas. There are plenty of
>other newsgroups for those who favor the endless CW/no CW arguments.

Bingo.. it reminds me of a pack of dogs that bark at the moon... :/
MK

2121. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 11:14:48 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <6fKdnUg-MJ-htcLZRVn-sw@comcast.com>
Source record: 59763
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Jack Hamilton" <jfh@acm.org> wrote in message
news:qtdg5216b5leq7tsm25n48u1vphlrk0i73@4ax.com...
> "Dee Flint" <deeflint01@comcast.net> wrote:
>
>>
>>> You are claiming that there are circumstances under which CW can be
>>> understood but none of the newer digital modes can? Assuming, of
>>> course, a skilled operator for CW and appropriate equipment for digital
>>> modes. Or even software for both.
>>>
>>>
>>
>>That is correct. Let's just take a very simple example. PSK is one of
>>our
>>newest digital modes. When there are auroral disturbances, PSK cannot be
>>used. The phase shifts induced by the auroral activity make it impossible
>>for the computer to read. These phase shifts effect all the modes. Modes
>>that depend on phase shifts (such as PSK) are affected the most severely
>>and
>>quickly become unusable. On the other hand, CW takes on a buzzy, raspy
>>sound but a human operator can still decipher it although a computer will
>>fail. I have personally experienced these conditions. If the auroral
>>induced phase shifts aren't too severe even SSB will get through when PSK
>>has failed. I have also personally experienced this.
>
> OK. I wqas thinking of weak but undistorted signals - there seems to be
> evidence that digital modes can get through when CW can't even be heard.
> Audible but distorted signals, as you mention, are a different problem,
> one that I wasn't thinking of. Sort of like those distorted letters you
> have to decypher to gain access to restricted Yahoo groups, GoDaddy
> domain information, and various other web sites - a machine can
> certainly see them, but OCR isn't good enough to read them (neither am
> I, sometimes).
>
>

That is exactly the point I was trying to make. If one is content to turn
off the radio and not communicate at times when signals are distorted, then
various modes become less important. But I prefer to be able to communicate
as long as possible. Thus I consider it part of my goals as a ham to be as
conversant with as many modes as I can. I have setup and operated the

digital modes, including building my own sound card interface (even though I don't normally attempt soldering), just to gain experience in them even though I have no real interest in operating them per se. Pounding away at a keyboard is too much like the internet or my job.

To clarify, specify the conditions, and the "best mode" becomes evident. With distorted signals, CW wins with voice coming in second. With weak signals, some digital modes win with CW coming in second. For power consumption for a given signal strength, the digital modes come in last since you must have power to run the computer. And the power to run a computer alone (depending on the computer) is often more than enough to run a 100w CW or voice signal. So you add the digital signal and the digital modes become "power hogs."

Every mode has value.

Dee D. Flint, N8UZE

Dee D. Flint, N8UZE

2122. Re: Looking for UHF only TV Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 11:18:49 UTC
From: nm5k@wt.net
Message-ID: <1147087128.994866.65530@j33g2000cwa.googlegroups.com>
Source record: 59764

I've got an older rat shack corner reflector yagi/log thang that
is fairly decent. But I don't know if they sell them anymore..
It's the same basic antenna as the UHF section that you would
get if you bought the big UHF/VHF antenna.
The one I have has a corner reflector with 10 total elements.
Then it has the driven element, and about 14-15 director
elements that are all the same length. I used to to
receive the local UHF ATV machine. It was great for dx though
when the band opens up with ducting in the summer. I'd
watch stations all over the place from Houston. IE: San Antonio,
Austin, Corpus, Little Rock, West memphis , etc..
The ducting on UHF is actually even hotter than it is on VHF
most of the time. If 2 meters opens up, check UHF TV...
Half the time it will be wide open. The antenna I have would
eat the average bowtie for lunch. But like I say, they may
have quit selling them.
MK

2123. Re: Looking for UHF only TV Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 11:44:59 UTC
From: "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
Message-ID: <aa5vuNOSPAM-C0D6A8.06445808052006@newsclstr02.news.prodigy.com>
Source record: 59765

Wes,

Thanks..... the half-size (4-bay) shown on at
http://www.starkelectronic.com/wing5.htm for $21.23 (+$9 shipping) is
just what I need.

Dick

In article <ah0t52t08o0bj6q6v2vq0a39jq8vncak3g@4ax.com>,
Wes Stewart <n7ws*@*yahoo.com> wrote:

> On Sun, 07 May 2006 20:18:34 GMT, "Dick, AA5VU" <aa5vuNOSPAM@arrl.net>
> wrote:
>
> >I have been looking for a UHF only outside TV antenna or plans on
> >how to construct a double bow tie like antenna. Right now I have a 50
> >foot short run of RG-59 to an upstairs patio post. At the end of the
> >coax run I user an old TV antenna transformer to interface to the 300
> >ohm lead from a single bow tie (that came with old TV). This setup
> >works but surely there is something better. We are not that far from
> >the transmission sites but an inside antenna will not work.
>
> I've got one of these.
>
> http://www.starkelectronic.com/wnpr8800.htm
>
> The half-size (4-bay) would probably do it for you.
>
> With a Channel Master 7778 pre-amp I'm receiving all of the Phoenix
> hi-def channels from 100+ miles away.
>
> Probably just the pre-amp would fix your problem.

2124. Re: added 10 nF to my 1500-700Khz ant loop: -->> Result: i'm into LW 216khz !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 12:08:15 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-A910C8.14081508052006@ns.stben.net>
Source record: 59766
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

NIce.

Three grey boxes stacked like this one

http://users.fulladsl.be/spb13810/amloop/loopbottom2.jpg

would allow to make a spiral with 8 turns ... etc ...
should be the best solution ...

I bought 2 of these at a sell out for 4 euro/$/piece, now they are at 17
;-(.. !

In article <1147042625.171198.49090@j73g2000cwa.googlegroups.com>,
"K7ITM" <k7itm@msn.com> wrote:

> If you search the archives of this group (for example with Google), you
> wil find some good info about loops for low frequency reception. One
> way to keep the loop's effective self capacitance down is to wind it
> with the wires spaces apart some. It is common to use at least one
> wire diameter spacing between wires, so it would be at least two times
> the wire diameter, center to center. You can also put, say, 11 pieces
> of wooden dowel or PVC pipe in a circle. Number them in sequence.
> Then wind the wire outside 1, inside 2, outside 3, ... outside 11,
> inside 1, outside 2, ... so that each successive turn is on the
> opposite side of each particular pipe. (The axis of each pipe is
> perpendicular to the plane of the circle.) As you can see, you must
> use an odd number of posts in this construction.
>
> There is benefit to making the loop very symmetrical about a vertical
> plane, because local sources of noise are likely to be electric field
> which is perpendicular to the earth, and will be rejected by such a
> symmetrical antenna.
>
> Cheers,
> Tom
>

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

2125. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 12:20:21 UTC
From: Dan Richardson <>
Message-ID: <7qdu52talipismie5mf58pmf0mm5436uhf@4ax.com>
Source record: 59767

On Mon, 08 May 2006 02:55:04 GMT, Allisonnospam@nouce.bellatlantic.net
wrote:
[snip]
>
>If it's what I think it is the design is a coaxial feed section with
>a 1/2wl radiator. The difference being a coax fed rather than a
>balanced line feed. In either case it relies on an unterminated 1/4wl
>section reflecting a high impedence to match the end impedence of
>a 1/2wl section. That being something in the range of 3000-5000
>ohms (at resonance).
>
>There is also a third way to implement. use a lumped tuned circuit
>and tap the coax up from the bottom for match. The tuned circuit is
>parallel resonant with the 1/2wl section attached to the top. I've
>built this for use with my VHF HT and is about 38" for the radiator
>and the coil at the bottom looks like a baseloading coil. Works
>way better than a rubber duck but at 40" long overall it's big.
>
>
Here's another approach you might be interested in.

http://k6mhe.com/files/ssfm.pdf

73, Danny

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2126. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 12:31:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ZSG7g.12336$Lm5.11461@newssvr12.news.prodigy.com>
Source record: 59768
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Noon-Air wrote:
> The only problem with the EEs that I run across, is they know just enough to
> get themselves hurt and/or burn their homes down when they try to work with
> *ELECTRICITY* instead of electronics. It seems that at 240vac, all their
> common sense goes out the window.

EE stands for Electrical Engineer. Power company engineers
are usually EEs.
--
73, Cecil http://www.qsl.net/w5dxp

2127. Re: AM/MW Loop Antenna - Inductive Coupling -vice- Resistor Spoiler

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 12:33:45 UTC
From: switcher <no@KijkenZeHierOokAlNaar.be>
Message-ID: <no-CA3679.14334508052006@ns.stben.net>
Source record: 59769
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

In article <1147039039.586791.79380@v46g2000cwv.googlegroups.com>,
"RHF" <rhf-newsgroups@pacbell.net> wrote:

> AM/MW LOOP ANTENNA COUPLING :
> * The Coil of the external AM/MW Loop Antenna
> is an Inductor {RF Transformer Coil}
> * The Coil of the Radio's internal AM/MW Antenna
> is an Inductor {RF Transformer Coil}
> * Together the Two Coils form an RF Transformer
> Moving the Two Coils and changing their relationship
> to each other varies the "Coupling" between them.

Nice reasoning, but:

When coil A - ant has 5 turns, and coil B - radio has 5 turns, the
voltage (or so) is the same.

When we now double A / or B, the voltage should vary for the same
amount, I learned.... so you can make the sig higher ???

In my physics book (Halliday/Resnick Fundamentals of Physics), p 445 -
transformers it says:
N1 / V1 = N2 / V2

would it be possible to double the number of turns on B (which is
sometimes easier ... space requirements) ??? That would lead to double
V2 and higher sig ... ???

Of course, problem remains ... resonance. You can't add tunrs to A, or
you loose resonance ... Adding turns to A means .. making it smaller
... to have the same resonance properties ...

--
een appeltje te schillen met http://applefaulty.be
http://users.fulladsl.be/spb13810/bwnl.htm
Breng je iMac G5 terug (ik wil binnen 2 jaar geen defecte 2de hands Apple kopen)
http://www.apple.com/nl/support/imac/repairextensionprogram/

2128. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 12:56:19 UTC
From: Jon Kåre Hellan <dev@null.com>
Message-ID: <1mbqu8k74c.fsf@persaunet.uninett.no>
Source record: 59770

Allisonnospam@nouce.bellatlantic.net writes:
> If it's what I think it is the design is a coaxial feed section with
> a 1/2wl radiator. The difference being a coax fed rather than a
> balanced line feed. In either case it relies on an unterminated 1/4wl
> section reflecting a high impedence to match the end impedence of
> a 1/2wl section. That being something in the range of 3000-5000
> ohms (at resonance).

Here's a very simple end fed vertical dipole:

http://www.la2t.org/otfgallery/albums/Teknisk_plukk/1002.jpg

http://f3wm.free.fr/radio/pocket.html

It's simply a piece of coax. The braid is stripped off the last 1/4
wavelength. Another 1/4 wavelength from the end, there is a choke to isolate
a 1/4 wavelength of braid from the rest of the cable. Presto, dipole!

Support it with a fishing rod, hang it from a tree, whatever.

73 de LA4RT Jon

2129. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 13:59:23 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <ZrednRvlzqAl08LZRVn-uw@comcast.com>
Source record: 59771
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Cecil Moore wrote:
> Noon-Air wrote:
>
>> The only problem with the EEs that I run across, is they know just
>> enough to get themselves hurt and/or burn their homes down when they
>> try to work with *ELECTRICITY* instead of electronics. It seems that
>> at 240vac, all their common sense goes out the window.
>
>
> EE stands for Electrical Engineer. Power company engineers
> are usually EEs.

Dave, W1MCE, BSEE [ElectriCAL Engineer]

Never worked as an electriCAL Engineer. Designed transistors for almost four years. Designed USAF Flight Line Test Equipment for six plus years. Designed USAF Computer Controlled Avionics Test Equipment for 10+ years. Spent 3 1/2 years as Field Engineer at Hill AFB, UTAH on Computer Equipment. Worked for 7 plus years on the Effects of Nuclear Weapons on USAF strategic assets. Spent part of three years at the Nuclear UGT facility in Nevada. Spent 6 plus years as Chief Engineer on the USAF MX Missile RS/RV. Finished up as System Engineer on the RF Subsystem Force Modernization for the MK21 RV. In between, I managed the Strategic Product Design, Electronic Department for three years, now retired.

I still have my text books on HV transformer design, Generator Design, Fluid Dynamics, Thermo Dynamics, three phase power distribution, etc. around here somewhere ... I hope.

My VP Engineering, to paraphrase his judgment, claimed: "Give me an Engineer with a good Physics background and a good Math background and I can put him/her to work anywhere. In three months [s]he will be blunder proof, in six months competent, in 12 months expert." After 30 plus years of engineering I conclude he was correct.

But, I've left BSEE behind me. I retired from my profession six years ago.

And, as my wife says; "You can take the engineer out of engineering; but, you can't take engineering out of the engineer." I'm still learning from highly gifted people like Roy, Cecil, Reg, etc.

I'm still practicing my Vocation ....

2130. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 14:14:34 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <P-KdnU-7qf_az8LZRVn-qA@comcast.com>
Source record: 59772
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

CW wrote:

> You could have shortened that up considerably. Short version: "I did it so
> everyone else should have to". See how easy that was? Not an original idea
> though.
>

CW, you are incorrect. I VALUE my license because it took effort over many years. The issue is valuing your license because you invested time, talent and energy into obtaining it. The more you invest, the more you value.

If you read the full message you would conclude that the message is about investing and reward of investing. It is not about a 4 hour cram short term memory program that yields a Technician License without the KNOWLEDGE of how to build a 1/2 wavelength dipole with coax to connect to the new out of the box toy.

When I read posts regarding 'how to ...' on some basic aspect of Ham Radio I wonder about the training, education, understanding, that went into 'studying' for that license. IMO, the license should indicate a level of proficiency that, in many cases, is missing. When I hear an EXTRA CLASS ham on twenty meters asking someone what the difference is between USB and LSB, we have a problem in training and education.

I don't know if Ham Radio will degenerate into glorified CBers. But, for many it has become a hobby of appliance operators.

- - -

2131. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 14:17:27 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1147097846.905507.19600@i40g2000cwc.googlegroups.com>
Source record: 59773
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dave wrote:
> Silent Key wrote:
>
> > What's the purpose of ham radio, To have fun talking about rigs and
> > weather, or to be able to communicate?
> >
> >SNIPPED
>
> In the olden days, the purpose was well understood. It was, and still
> is, to become proficient in one or more aspects of radio communication,
> to provide a skilled base of technically proficient people who pursue an
> interest in some aspect of radio communication technology and art for
> personal gain without any financial interest, reward or compensation
> from the activity.
>
> It is NOT to open a box, plug it in, connect a wire, and, when it
> doesn't work, get on the internet and ask for help.
>
> I advocate for a code test for the following reason. I value what I have
> to plan for, work for, sacrifice for, and invest my time for.
>
snipped

If you really believe that morse code is an important way to
communicate that should be preserved then you need to convince other
hams and potential hams to learn the code. You need to convince enough

hams to use code so its very usage generates excitement and makes
people want to join in the fun. Almost self-perpetuating like it was
in the 1950's.

Preaching (or complaining) to the choir on the radio fora about the
abysmal state of things will not add one person to the ranks of key
pounding hams.

So what are you going to do to increase the number of code practicing
hams.

2132. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 15:24:57 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147101896.956251.248990@i39g2000cwa.googlegroups.com>
Source record: 59774
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dave wrote:
> CW wrote:
>
> > You could have shortened that up considerably. Short version: "I did it so
> > everyone else should have to". See how easy that was? Not an original idea
> > though.
> >
>
> CW, you are incorrect. I VALUE my license because it took effort over
> many years. The issue is valuing your license because you invested time,
> talent and energy into obtaining it. The more you invest, the more you
> value.

bullshit or at best your milage may vary

whta you are doing is oseeking to impose your value system on me

I value value my tech license because I had to work for it I value it
becuase of what it allows to DO

your tpye of licesen rational maens we would realy value it if we were
lashed in the public to gte one

>
> If you read the full message you would conclude that the message is
> about investing and reward of investing. It is not about a 4 hour cram
> short term memory program that yields a Technician License without the
> KNOWLEDGE of how to build a 1/2 wavelength dipole with coax to connect
> to the new out of the box toy.

I did not study for my tech test at all (beyond a quick reading of the
pool I worked from memeries of my failued efforts 2rogh twenty years
before to obtain a Novice lense

and what reward from Code, I have invested in my teen when I could that
sort of thing 5 years at 40 minute perdays 5 week aweek and I got
NOTHING for it. (except that one of the ham giving the test noticed
from the patern in my error I might be dyslexic and I got what
treatementthier was much sooner than i would goten otherwise)

you idea is premised on the theory one get what one pay for and gets
paid what oneis worth. You kknow what ome of us have never found that
to be true I have never gotten a fair rate of pay I have always been
more than I was worth or less than I was worth

I value profit, my tech licesne has been a profitable insvestment,
exceming so, Hf has been a balck hole for effort yeilding NOTHING for
that effort
>
> When I read posts regarding 'how to ...' on some basic aspect of Ham
> Radio I wonder about the training, education, understanding, that went
> into 'studying' for that license. IMO, the license should indicate a
> level of proficiency that, in many cases, is missing. When I hear an
> EXTRA CLASS ham on twenty meters asking someone what the difference is
> between USB and LSB, we have a problem in training and education.

those folks passed the code test and 2 other
>
> I don't know if Ham Radio will degenerate into glorified CBers. But, for
> many it has become a hobby of appliance operators.

indeed I am not esp interested in building rig myself more intersted in
interfacing radio with their part attennas and such

indeed I have even been intered in the possibilities of what I call
human assist machine decode of CW I have made contacts where the
machince decodes what it can and I look at a screen to decide is that a
dit, dah or satic, feeding the results back in the machine for clear
text, done that hispeed metro stuff and that has acheived my 3 EME
contacts

all without any real abilty to decode by ear the cw itself beyond
needing to tune the signal
>
> - - -

2133. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 16:27:21 UTC
From: szekeres@pitt.edu
Message-ID: <e3nrht$s1j$1@usenet01.srv.cis.pitt.edu>
Source record: 59775
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

In article <445c2f80$0$1005$39cecf19@news.twtelecom.net>, Tom Ring <news0002@taring.org>
wrote:
>Cecil Moore wrote:
>
>> Silent Keys wrote:
>>
>>> What if in an emergency your microphone broke, and the only thing you had
>>> to save a life was CW?
>>
>>
>> What if the aliens invaded and all they couldn't understand
>> was CW?
>
>Which is most likely, actually. We broadcast a lot more voice than CW,
> Ever noticed how many watts of television, FM radio and AM radio are
>out there versus CW?
>
>CW is effectivly dead except for those that wish to keep it alive.
>Similar to the old car collectors. Nothing wrong with it. beautiful
>collector items, but not really part of the current world.

CW is and might be around forever for identifiers in different things.
It can be transmitted along with voice and doesn't get in the way
of other things. Any loss would be the best fun I had during
my Amateur Radio Service and learning Radiotelegraph Second class
training. I even found a code chart at the RF desks at a NASA MSFN tracking
station when I worked there. Just in case!

greg

2134. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 16:48:25 UTC
From: W2AGN <w2agn@nospamw2agn.net>
Message-ID: <jJ6dna5SfKrH68LZnZ2dnUVZ_vmdnZ2d@comcast.com>
Source record: 59776
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

an_old_friend wrote:
> Dave wrote:
>> CW wrote:
>>
>>> You could have shortened that up considerably. Short version: "I did it so
>>> everyone else should have to". See how easy that was? Not an original idea
>>> though.
>>>
>> CW, you are incorrect. I VALUE my license because it took effort over
>> many years. The issue is valuing your license because you invested time,
>> talent and energy into obtaining it. The more you invest, the more you
>> value.
>
> bullshit or at best your milage may vary
>
> whta you are doing is oseeking to impose your value system on me
>
> I value value my tech license because I had to work for it I value it
> becuase of what it allows to DO
>
> your tpye of licesen rational maens we would realy value it if we were
> lashed in the public to gte one
>
>> If you read the full message you would conclude that the message is
>> about investing and reward of investing. It is not about a 4 hour cram
>> short term memory program that yields a Technician License without the
>> KNOWLEDGE of how to build a 1/2 wavelength dipole with coax to connect
>> to the new out of the box toy.
>
> I did not study for my tech test at all (beyond a quick reading of the
> pool I worked from memeries of my failued efforts 2rogh twenty years
> before to obtain a Novice lense
>
> and what reward from Code, I have invested in my teen when I could that
> sort of thing 5 years at 40 minute perdays 5 week aweek and I got
> NOTHING for it. (except that one of the ham giving the test noticed
> from the patern in my error I might be dyslexic and I got what
> treatementthier was much sooner than i would goten otherwise)
>
> you idea is premised on the theory one get what one pay for and gets
> paid what oneis worth. You kknow what ome of us have never found that

> to be true I have never gotten a fair rate of pay I have always been
> more than I was worth or less than I was worth
>
> I value profit, my tech licesne has been a profitable insvestment,
> exceming so, Hf has been a balck hole for effort yeilding NOTHING for
> that effort
>> When I read posts regarding 'how to ...' on some basic aspect of Ham
>> Radio I wonder about the training, education, understanding, that went
>> into 'studying' for that license. IMO, the license should indicate a
>> level of proficiency that, in many cases, is missing. When I hear an
>> EXTRA CLASS ham on twenty meters asking someone what the difference is
>> between USB and LSB, we have a problem in training and education.
>
> those folks passed the code test and 2 other
>> I don't know if Ham Radio will degenerate into glorified CBers. But, for
>> many it has become a hobby of appliance operators.
>
> indeed I am not esp interested in building rig myself more intersted in
> interfacing radio with their part attennas and such
>
> indeed I have even been intered in the possibilities of what I call
> human assist machine decode of CW I have made contacts where the
> machince decodes what it can and I look at a screen to decide is that a
> dit, dah or satic, feeding the results back in the machine for clear
> text, done that hispeed metro stuff and that has acheived my 3 EME
> contacts
>
> all without any real abilty to decode by ear the cw itself beyond
> needing to tune the signal
>> - - -
>

Fascinating! We have here a perfect example of a functional illiterate
who was able to obtain a Ham license. Of course he would not like CW as
one must be able to spell, and construct simple sentences, which is
obviously beyond him.

2135. Re: New program - SKYTRIG

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 17:57:13 UTC
From: J Tabor <denews@taborsoft.com>
Message-ID: <125v1k48ulgbuec@corp.supernews.com>
Source record: 59777

Hi,

Indeed a worthy offering. <G>

Also feel free to download and use the default QSL-ware (freeware) WinCAP Wizard.

WinCAP Wizard is an enhanced, amateur radio directed, HF prop app making use of the VOACAP prediction engine.

Many, many charts and reports are provided in the QSL-ware mode.
www.taborsoft.com

Cheers,
Jim
--
email sent to: denews@taborsoft.com
is discarded without being seen.
Sorry for any inconvenience.

2136. Re: question: NEC2 w/ ground parms.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 18:42:07 UTC
From: rjtucke <rjtucke@gmail.com>
Message-ID: <1147113726.994153.85150@j73g2000cwa.googlegroups.com>
Source record: 59778

```
Per emailed request, here is my deck:
CM 40/15M folded dipole model by NS7F
CE
GW 1 11 -10.2761 0.0508 10.0000 10.2761 0.0508 10.0000
0.0016
GW 2 11 -10.2761 -0.0508 10.0000 10.2761 -0.0508 10.0000
0.0016
GW 3 11 -10.2761 0.0000 10.0880 10.2761 0.0000 10.0880
0.0016
GW 4 1 -10.2761 0.0508 10.0000 -10.2761 -0.0508 10.0000
0.0016
GW 5 1 -10.2761 -0.0508 10.0000 -10.2761 0.0000 10.0880
0.0016
GW 6 1 -10.2761 0.0000 10.0880 -10.2761 0.0508 10.0000
0.0016
GW 7 1 10.2761 0.0508 10.0000 10.2761 -0.0508 10.0000
0.0016
GW 8 1 10.2761 -0.0508 10.0000 10.2761 0.0000 10.0880
0.0016
GW 9 1 10.2761 0.0000 10.0880 10.2761 0.0508 10.0000
0.0016
GE 1
EX 0 1 6 00 1.0000 0.0000
FR 0 11 0 0 7.0000 0.0300
GN 2 0 0 0 12.0000 -0.007
RP 0 35 71 1001 0.0000 0.0000 5.0000 5.0000
EN
```

2137. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 19:02:26 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1147114946.044141.48270@e56g2000cwe.googlegroups.com>
Source record: 59779
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

W2AGN - May be you should re-read this
and think about your reply - jnlybj ~ RHF

(except that one of the ham giving the test noticed
from the patern in my error I might be dyslexic and
I got what treatement thier was much sooner than
I would goten otherwise)

[There but for the grace of God go I - Amen]
.
.
.
. .
.

2138. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 19:41:51 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445f9eff$0$1008$39cecf19@news.twtelecom.net>
Source record: 59780

Buck wrote:

> On Sun, 07 May 2006 20:05:28 -0500, Tom Ring <news0002@taring.org>
> wrote:
>
>
>
>>Thanks for mentioning the Topfkreis. It seems like it should work much
>>better, and is so obvious once you see it. I will have to make one.
>>
>>tom
>>K0TAR
>
>
>
> OK, I did a search, unsuccessfully, on Topfkreis. What is it and
> where do I find it?
>
> thanks
> Buck
>

I found these. Not in english, but it hardly matters.

http://membres.lycos.fr/arrad38/bidouilles/topfkreis/topfkreis.htm
http://f5jtz.club.fr/pjacquet/topkreis.htm

tom
K0TAR

2139. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 19:58:56 UTC
From: dplatt@radagast.org
Message-ID: <125v8o0jmoufu5b@corp.supernews.com>
Source record: 59781

In article <445f9eff$0$1008$39cecf19@news.twtelecom.net>,
Tom Ring <news0002@taring.org> wrote:

>> OK, I did a search, unsuccessfully, on Topfkreis. What is it and
>> where do I find it?

>I found these. Not in english, but it hardly matters.
>
>http://membres.lycos.fr/arrad38/bidouilles/topfkreis/topfkreis.htm
>http://f5jtz.club.fr/pjacquet/topkreis.htm

Also try Googling for "sperrtopf" or "sperrtof". Same basic idea...
a J-pole-like extended Zepp in which the matching section is a coaxial
sleeve.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2140. Re: cw trolling

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 20:44:02 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e3oaijbjo1@avnika.corp.mot.com>
Source record: 59782
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1146857107.822936.121660@y43g2000cwc.googlegroups.com...
> Steve N. wrote:

> > Should stay that way...

Silent, I meant. (in case you missed that one)

> > "Silent Key" <cw.h@m.bands> wrote in message
> > news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
> > > What's the purpose of ham radio, ...
> > > SC
> > Well, "SC" a.k.a. troll,
> > Cw, when it came along, was frowned uopn and was predicted to be the
death
> > of ham radio as well. Did you know that?

> hmm I knew that about AM and SSB but not CW do you happen to have a
> reference for that? (might be useful)

Whoever you are,
I believe you will find this in the book about the early days of amateur
radio. It is called something like "200 Meters and Down", or is it "Below".
ARRL has it and many ham stores do. I have a copy and have difficulty
remembering the exact title. A really nice read. I also have a 1932 ARRL
handbook and I think there are references to the "doom of the advent of CW"
in there also.

. You, of course, know about spark. The sparkies didn't like CW and, at
that time, the FCC __DID__ out law it (spark, that is).
I admit that it was a loaded question because CW stands for Continuous Wave
and what differentiates it from" Spark". Probably not what the troll wanted
and I know he/she/it wouldn't respond, but did it anyway.

> > Your fingers and eyes (or ears) aren't broke....
> are you sure? his brain seem to be

A given and my point exactly.

> >.. so why aren't you out mentoring new hams? ... Why am *I* wasting my
time with this...pfffvt

> maybe becuase you are tired of this divisve pissing contest or something
like that

Yea. A vent is in order every once-in-a-while, I guess. I figured the CW doom thing would get a comment, so thanks - whomever you may be..

73, Steve, K9DCI

2141. Re: HF Mobile - Grounding Antenna when stationary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 20:53:47 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e3ob4sblg1@avnika.corp.mot.com>
Source record: 59783

"Dave" <W1MCE@comcast.net> wrote in message
news:oPednY9NV8TQ0sDZRVn-iA@comcast.com...
> OZUser wrote:
>
> > As an avid 4WD SUV owner I do a lot of outback travelling (Austrlian
> > Deserts, Cape York, Kimberly Coast) and as such have a Barrett 950
HFradio
> > &Barrett 910 Autotune antenna installed for comms.
> >
> > Would it be preferable when camped / stationary to earth the vehile to a
> > "ground" ground = what I am looking for is a better receive signal ?????

> NOPE!!
> But changing to a larger antenna will certainly help.

Even if you went to the trouble of pounding in a 3 meter (8 ft) ground rod,
or laid out somewhere between five and 40 radials, the answer would still be
NOPE. As stated in other posts, the loaded mobile antenna is in-efficient
to begin with.

73, Steve, K9DCI

Well, knowing RF, it 'might' make a measurable difference (small amount),
but probably not a practical difference (many dB).

2142. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 20:57:13 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e3obbabln1@avnika.corp.mot.com>
Source record: 59787

<mcalhoun@ksu.edu> wrote in message news:e3itbh$eb5@unix1.cc.ksu.edu...
> >> I just think the great stories of rain gutters, chimneys, fire escapes,
> >> etc. reflect the spirit of individual experimentation that, to me, is
> >> the heart of ham radio. Maybe not the brain, but the heart.
>
> >You must love Kurt N. Sterba's tales of using bedsprings,
> >ladders, and garbage cans for antennas.
>
> And don't forget the (QST?) pictures of "car antennas" several years
> ago: two cars sitting almost bumper-to-bumper and fed with coax as a
> very-low dipole at the almost-touching bumpers. Truly a "car antenna"
> (but not very mobile)!

> --Myron A. Calhoun.

Now THAT one I haven't seen.

HOWEVER, I DO have a picture (Dad's) of two hams and their cars side by
side. W9SH and W9IT

Of course they had call plates! What'd you expect! Ya think QST'd print it
????

73, Steve, K9DCI

2143. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 21:04:52 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e3obpl$bo9$1@avnika.corp.mot.com>
Source record: 59786

Harbin,
You seem to understand the "J-Antenna". What you really seem to be asking is how far apart is "too far" for a balanced transmission line. That's a question I can't answer and I'm sure others can, but , in the common custom of adding obtuse references which sort of seem to be relevant... what about that old one wire transmission like the "G-Line"? [no joke]

73, Steve, K9DCI

"Harbin" <harbinjr@adelphia.net> wrote in message
news:d92dnVBi_rDdB8fZRVn-hA@adelphia.com...
Howdy:
In a j-pole the 1/4 wave element, and the bottom 1/4 of the 3/4
element should act as a transmission line, right? So... shouldn't these
elements be as very close to each other to cancel one another out, closer
than what I see on most j-poles? Or is this space have something to do
with the impedance of the antenna?

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv
http://media.putfile.com/La-Gran-Marcha
The Mexican Solution:
http://www.centerforsecuritypolicy.org/index.jsp?section=papers&code=06-D_18

-

2144. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 21:07:20 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e3obu9boe1@avnika.corp.mot.com>
Source record: 59785

OOPS! Jon,
IF it is "end-fed" is isn't a "di-pole". It is just a half wave. I
guess it is technically a monopole.
73, Steve, K9DCI

"Jon Kåre Hellan" <dev@null.com> wrote in message
news:1mbqu8k74c.fsf@persaunet.uninett.no...
>
> Here's a very simple end fed vertical dipole:
>
> http://www.la2t.org/otfgallery/albums/Teknisk_plukk/1002.jpg
>
> http://f3wm.free.fr/radio/pocket.html
>
> It's simply a piece of coax. The braid is stripped off the last 1/4
> wavelength. Another 1/4 wavelength from the end, there is a choke to
isolate
> a 1/4 wavelength of braid from the rest of the cable. Presto, dipole!
>
> Support it with a fishing rod, hang it from a tree, whatever.
>
> 73 de LA4RT Jon

2145. Re: cw trolling

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 21:09:54 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1147122594.900336.272650@u72g2000cwu.googlegroups.com>
Source record: 59784
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

The FCC Outlawed 'Spark' for very valid technical reasons
at that time and they are still valid today. The very same
logic could be used to still justify the continued use of CW
as an Amateur Operating Mode; even though the requirement
for proficiency in CW is not used for an Amateur License.

jm2cw ~ RHF
.
.
.
. .
.

2146. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 22:21:09 UTC
From: Silent Keys <no.m@il.here>
Message-ID: <pvP7g.1622$u4.583@newsread1.news.pas.earthlink.net>
Source record: 59788
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Tom Ring <news0002@taring.org> wrote in
news:445c1b4a$0$6152$39cecf19@news.twtelecom.net:

> Signal Chaser wrote:
>
>>>Preaching (or complaining) to the choir on the radio fora about the
>>>abysmal state of things will not add one person to the ranks of key
>>>pounding hams.
>>>
>>>So what are you going to do to increase the number of code practicing
>>>hams.
>>
>>
>>
>> Call the FCC, email the ARRL. Tell them you don't want to see ham
>> radio dumbed down anymore, for the good of the service and the good of
>> country.
>>
>> God bless America. Amen
>>
>> SC
>>
>
> Yup, that increased the number of CW ops by a lot. Typical old style
> ham response. Moron. Pure and simple moron.
>
> This is why CW is losing the battle. Not because it's a lost art, or
> something that's not worthwhile, but because the "supporters" do nothing
> but complain.
>
> I don't want to see CW go away; I think it's a "good thing", and should
> stay around, especially for things it still does well, such as EME. Of
> course this is not the place to speak of "advanced" things like EME,
> after all, it's only been around for 50 years.
>
> tom
> K0TAR

My arguement for CW has never been from the perspective of getting more
ops. It's the quality of the operators I'm concerned about, not quantity.
A code requirement may mean someone will study the theory portion a
little more while they're building up their code.

One day, when you turn on your HF or VHF/UHF rig and it sounds like CB,
you'll understand where I'm coming from.

SC

2147. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 22:21:11 UTC
From: Silent Keys <no.em@il.here>
Message-ID: <rvP7g.1623$u4.1550@newsread1.news.pas.earthlink.net>
Source record: 59789
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dave <W1MCE@comcast.net> wrote in news:P-KdnU-7qf_az8LZRVn-qA@comcast.com:

> CW wrote:
>
>> You could have shortened that up considerably. Short version: "I did it
>> so everyone else should have to". See how easy that was? Not an
>> original idea though.
>>
>
> CW, you are incorrect. I VALUE my license because it took effort over
> many years. The issue is valuing your license because you invested time,
> talent and energy into obtaining it. The more you invest, the more you
> value.
>
> If you read the full message you would conclude that the message is
> about investing and reward of investing. It is not about a 4 hour cram
> short term memory program that yields a Technician License without the
> KNOWLEDGE of how to build a 1/2 wavelength dipole with coax to connect
> to the new out of the box toy.
>
> When I read posts regarding 'how to ...' on some basic aspect of Ham
> Radio I wonder about the training, education, understanding, that went
> into 'studying' for that license. IMO, the license should indicate a
> level of proficiency that, in many cases, is missing. When I hear an
> EXTRA CLASS ham on twenty meters asking someone what the difference is
> between USB and LSB, we have a problem in training and education.
>
> I don't know if Ham Radio will degenerate into glorified CBers. But, for
> many it has become a hobby of appliance operators.
>
> - - -

I'm going to drop this agrument because it looks like I lost and people
really don't care anymore one way or the other, but I'll end it with just
couple questions to all;

What is one behavior on our ham bands that might or could make you loose
interest in ham radio and leave if you heard it or if it became previlent?

And does it seem like it's going that direction?

SC

2148. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 22:21:13 UTC
From: Sinpo Code <Sc@my.mail.box>
Message-ID: <tvP7g.1625$u4.320@newsread1.news.pas.earthlink.net>
Source record: 59790
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Lancer <lancer@rock.com> wrote in
news:08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com:

> On Wed, Apr 2006 20:54:39 GMT, Skirt Chaser <my.em@il.dont.work>
> wrote:
>
>>
>>ARRL threw principle out the window when they caved in to the demands of
>>the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed
>>when I opened my beloved QST magazine and there on the pages were photos
>>of queers on a Tropical DXpedition, and in living color no less. The
>>ARRL wanted us to embrace a sick perverted lifestyle and be one big
>>happy family. To me, it was the spark that signaled the death of a once
>>proud organization, and it turned liberal.
>
> Which issue of QST was that? Wanna bet that N8WWM was in that
> DXpedition picture?
>

I don't remember who was all in it, but one guy kept dropping the
soldering iron on the ground in front of people, then he'd bend over
slowly to pick it up again like he was hoping someone might give him a
poke. Disgusting.

SC

2149. I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 22:21:14 UTC
From: Radio Buff <no.more.m@il.now>
Message-ID: <uvP7g.1626$u4.1133@newsread1.news.pas.earthlink.net>
Source record: 59791
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

I'm afraid we can expect more and more of this as time goes on.

SC

2150. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-08 23:57:45 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <X4udnQeLZPhoR8LZRVn-rQ@comcast.com>
Source record: 59792
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

If you have that much grief, just say Amen! and quit!
- - -

an_old_friend wrote:

> Dave wrote:
>
>>CW wrote:
>>
>>
>>>You could have shortened that up considerably. Short version: "I did it so
>>>everyone else should have to". See how easy that was? Not an original idea
>>>though.
>>>
>>
>>CW, you are incorrect. I VALUE my license because it took effort over
>>many years. The issue is valuing your license because you invested time,
>>talent and energy into obtaining it. The more you invest, the more you
>>value.
>
>
> bullshit or at best your milage may vary
>
> whta you are doing is oseeking to impose your value system on me
>
> I value value my tech license because I had to work for it I value it
> becuase of what it allows to DO
>
> your tpye of licesen rational maens we would realy value it if we were
> lashed in the public to gte one
>
>
>>If you read the full message you would conclude that the message is
>>about investing and reward of investing. It is not about a 4 hour cram
>>short term memory program that yields a Technician License without the
>>KNOWLEDGE of how to build a 1/2 wavelength dipole with coax to connect
>>to the new out of the box toy.
>
>
> I did not study for my tech test at all (beyond a quick reading of the
> pool I worked from memeries of my failued efforts 2rogh twenty years
> before to obtain a Novice lense

>
> and what reward from Code, I have invested in my teen when I could that
> sort of thing 5 years at 40 minute perdays 5 week aweek and I got
> NOTHING for it. (except that one of the ham giving the test noticed
> from the patern in my error I might be dyslexic and I got what
> treatementthier was much sooner than i would goten otherwise)
>
> you idea is premised on the theory one get what one pay for and gets
> paid what oneis worth. You kknow what ome of us have never found that
> to be true I have never gotten a fair rate of pay I have always been
> more than I was worth or less than I was worth
>
> I value profit, my tech licesne has been a profitable insvestment,
> exceming so, Hf has been a balck hole for effort yeilding NOTHING for
> that effort
>
>>When I read posts regarding 'how to ...' on some basic aspect of Ham
>>Radio I wonder about the training, education, understanding, that went
>>into 'studying' for that license. IMO, the license should indicate a
>>level of proficiency that, in many cases, is missing. When I hear an
>>EXTRA CLASS ham on twenty meters asking someone what the difference is
>>between USB and LSB, we have a problem in training and education.
>
>
> those folks passed the code test and 2 other
>
>>I don't know if Ham Radio will degenerate into glorified CBers. But, for
>>many it has become a hobby of appliance operators.
>
>
> indeed I am not esp interested in building rig myself more intersted in
> interfacing radio with their part attennas and such
>
> indeed I have even been intered in the possibilities of what I call
> human assist machine decode of CW I have made contacts where the
> machince decodes what it can and I look at a screen to decide is that a
> dit, dah or satic, feeding the results back in the machine for clear
> text, done that hispeed metro stuff and that has acheived my 3 EME
> contacts
>
> all without any real abilty to decode by ear the cw itself beyond
> needing to tune the signal
>
>>- - -
>
>

2151. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 00:18:47 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445fdfe7$0$6149$39cecf19@news.twtelecom.net>
Source record: 59793
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Radio Buff wrote:

> I'm afraid we can expect more and more of this as time goes on.
>
>
> SC

GOAT

2152. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 00:26:00 UTC
From: almostcutmyhairtoday@yahoo.com
Message-ID: <1147134360.265243.219960@u72g2000cwu.googlegroups.com>
Source record: 59794
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Roy Lewallen wrote:
> Tom Ring wrote:
> >
> > Bet no one from the antenna newsgroup even bothers to respond with
> > anything worthwhile. This is, after all, a group of people that thinks
> > the world ends at 10 meters. (Except for a very very few, and you know
> > I'm not speaking of you).
>
> I bet no one from the antenna newsgroup bothers to respond because the
> topic doesn't have anything to do with antennas. There are plenty of
> other newsgroups for those who favor the endless CW/no CW arguments.
>
> Roy Lewallen, W7EL

Roy, don't antennas radiate CW better than they radiate SSB? 8^))

Anyway, rraa has it's fair share of jerks.
```

2153. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 00:54:30 UTC
From: hot-ham-and-cheese@hotmail.com
Message-ID: <1147136070.395019.254980@v46g2000cwv.googlegroups.com>
Source record: 59795
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Jim - NN7K wrote:

> Showing that : Now days, this is nothing much more than a
> Glorified Citizens Band? 10-4 good buddy! , and now on to the
> Sspectrum Auctioneer! SOMEONE has to have a better use for it!
> All those good numbers, see u on the flip-flop! (formerly) NN7K

(formerly) NN7K, did you have a point?

2154. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 01:19:57 UTC
From: CW <s@earthlink.net>
Message-ID: <17S7g.342$Jf.36@newsread4.news.pas.earthlink.net>
Source record: 59796
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

So, are you asking if people are getting rude, using foul language and don't seem to give a crap about each other? If so, yes, they are. The sure cure for that would be to increase the code requirement to 30 words per minute for general. Faster for extra. Along with that, NO license of any kind without an engineering degree. This all wouldn't do anything about lousy operators. What it would do is reduce the number of new hams. After a while, we would be down to 100 or so nationwide. The bands would get much better because there would be virtually no one using them. Something that you seem to have failed to consider is that society in general is adopting these traits you find objectionable. New hams tend to be more objectionable (under this criteria) than old. Is it because they didn't spend hours studying code? No, it's because they are products of the society they live in. Americans are known worldwide as pushy, arrogant, self centered bastards. There is a reason for that, they are.

"Silent Keys" <no.em@il.here> wrote in message
news:rvP7g.1623$u4.1550@newsread1.news.pas.earthlink.net...
> And does it seem like it's going that direction?
>
> SC

2155. Re: AM/MW Loop Antenna - Inductive Coupling -vice- Resistor Spoiler

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 01:34:13 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1147138453.246311.80090@g10g2000cwb.googlegroups.com>
Source record: 59797
Cross-posted to: rec.radio.shortwave,rec.radio.amateur.antenna

Switcher,

For most applications using "Receive Only" Matching
Transformers (MT) the Idea is to step down the Voltage.
If the Antenna-Side of the MT has a Voltage difference
of 0.9uv (Weak Signal) to 180uv (Strong Signal) and the
Receiver-Side of the MT would have a Voltage difference
of 0.3uv to 60uv which most Receivers could better
handle.

It is my simple understanding the two things that we
wish to accomplish with the Receiver-Side of the
Matching Transformer is to Match the Impedance
of the Receiver's Antenna Input for the Range of
Frequencies we hope to hear and to adjust the RF
Signal 'differential' to better match the Limits of the
Dynamic Range of the Receiver's Circuitry.

someone correct me if i am wrong - iane ~ RHF
.
.
.
. .
.

2156. Re: HF Mobile - Grounding Antenna when stationary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 01:46:23 UTC
From: Brian Murrey <brian@iquest.net>
Message-ID: <PvS7g.1713$u4.354@newsread1.news.pas.earthlink.net>
Source record: 59798

Ozzie,

What the hell...give it a try. Your only investment is a little time, a little work pounding the ground rod in, and it'll work or it won't. Then, have a beer, sit back and enjoy the night.

Personally...I think if you are just interested in listening...try tossing a long wire in the bush, and maybe wrapping the other end, a dozen times maybe, around that 2m steel whip.

Gud luck mate

73

--
==========
Radio Amateurs - Fill your junk box, from my junkbox!
http://www.hamradparts.com
73 de KB9BVN
==========

"OZUser" <ozuser@ozuser.com.au> wrote in message
news:1146965914.944527@teuthos...
> As an avid 4WD SUV owner I do a lot of outback travelling (Austrlian
> Deserts, Cape York, Kimberly Coast) and as such have a Barrett 950 HFradio
> &Barrett 910 Autotune antenna installed for comms.
>
> Would it be preferable when camped / stationary to earth the vehile to a
> "ground" ground = what I am looking for is a better receive signal ?????
>
>
>

2157. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 01:54:40 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445ff660$0$6149$39cecf19@news.twtelecom.net>
Source record: 59799
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

almostcutmyhairtoday@yahoo.com wrote:

> Roy Lewallen wrote:
>
>>Tom Ring wrote:
>>
>>>Bet no one from the antenna newsgroup even bothers to respond with
>>>anything worthwhile. This is, after all, a group of people that thinks
>>>the world ends at 10 meters. (Except for a very very few, and you know
>>>I'm not speaking of you).
>>
>>I bet no one from the antenna newsgroup bothers to respond because the
>>topic doesn't have anything to do with antennas. There are plenty of
>>other newsgroups for those who favor the endless CW/no CW arguments.
>>
>>Roy Lewallen, W7EL
>
>
> Roy, don't antennas radiate CW better than they radiate SSB? 8^))
>
> Anyway, rraa has it's fair share of jerks.
>

My point was that few people here think beyond the dipole, quarter wave
vertical, or shortened mobile vertical. And all of those for HF. The
group is broad minded in many ways, but very narrow in others.

tom
K0TAR

2158. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 02:05:38 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <445ff8f2$0$1009$39cecf19@news.twtelecom.net>
Source record: 59800
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

CW wrote:

> So, are you asking if people are getting rude, using foul language and don't
> seem to give a crap about each other? If so, yes, they are. The sure cure
> for that would be to increase the code requirement to 30 words per minute
> for general. Faster for extra. Along with that, NO license of any kind
> without an engineering degree. This all wouldn't do anything about lousy
> operators. What it would do is reduce the number of new hams. After a while,
> we would be down to 100 or so nationwide. The bands would get much better
> because there would be virtually no one using them. Something that you seem
> to have failed to consider is that society in general is adopting these
> traits you find objectionable. New hams tend to be more objectionable (under
> this criteria) than old. Is it because they didn't spend hours studying
> code? No, it's because they are products of the society they live in.
> Americans are known worldwide as pushy, arrogant, self centered bastards.
> There is a reason for that, they are.
>
>
>
> "Silent Keys" <no.em@il.here> wrote in message
> news:rvP7g.1623$u4.1550@newsread1.news.pas.earthlink.net...
>
>>And does it seem like it's going that direction?
>>
>>SC
>
>
>

No license without an engineering degree would be fine by me. And
follow it by one that requires complete knowledge of the National
Traffic System. Which would be more inportant by far if you want to
keep the traditions up.

How many here know how to pass traffic properly? Bet I can draw a line
in time. And it had nothing to do with license class. I was a tech at
the time. But I learned how to pass traffic, and how to be net control
as part of the NTS. Because I had people on our local nets that
enforced the rules. On checking in, out, and passing traffic. Traffic
up into the system, and down to the final recipient.

That, my friends, was the difference. Not CW.

tom
K0TAR

2159. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 02:18:20 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <J7CdnUxNrcZ2ZsLZRVn-og@adelphia.com>
Source record: 59801

-
"F4DRH" <F4DRH@wanadoo.fr> wrote in message
news:445e596a$0$21305$8fcfb975@news.wanadoo.fr...
Hello Harbin

The bottom of the J-Pole antenna is a 1/4 wave length to transform the high impedance of the 1/2 wave length above into a lower impedance (close to 50 ohms). The impedance of that 1/4WL sould be Z = SQUARE (Z coax X Z antenna) .... in that case Z antenna is the impedance of the 1/2 WL (usually several hundreds ohms)
That's why the space between elements as well as there diameter is important.

You certainly know the Topfkreis ... which is the same antenna ... 1/2 WL + 1/4 WL ... but with another technical realisation.

Hoping it helps.

Regards

Jean-Marc
F4DRH
www.barbaxoops.com

Yep, this all helps, thank F4DRH.

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv
http://media.putfile.com/La-Gran-Marcha
The Mexican Solution:
http://www.centerforsecuritypolicy.org/index.jsp?section=papers&code=06-D_18

-

2160. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 02:56:05 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <ZKmdnTFXFPRemf3ZnZ2dnUVZ_vadnZ2d@adelphia.com>
Source record: 59802

Hi Tom:
The Topfkreis kind of reminds me of the skeleton sleeve antenna.
Very interesting.

--
SeeYaa:) Harbin Osteen KG6URO

This is YOUR future:
http://halturnershow.com/aztlan_caps.wmv
http://media.putfile.com/La-Gran-Marcha
The Mexican Solution:
http://www.centerforsecuritypolicy.org/index.jsp?section=papers&code=06-D_18

-
"Tom Ring" <news0002@taring.org> wrote in message
news:445e9958$0$1014$39cecf19@news.twtelecom.net...
> F4DRH wrote:
>> Hello Harbin
>> The bottom of the J-Pole antenna is a 1/4 wave length to transform the high impedance of the 1/2 wave length above into a lower
>> impedance (close to 50 ohms). The impedance of that 1/4WL sould be Z = SQUARE (Z coax X Z antenna) .... in that case Z antenna
>> is the impedance of the 1/2 WL (usually several hundreds ohms)
>> That's why the space between elements as well as there diameter is important.
>> You certainly know the Topfkreis ... which is the same antenna ... 1/2 WL + 1/4 WL ... but with another technical realisation.
>> Hoping it helps.
>> Regards
>> Jean-Marc
>> F4DRH
>
> Jean-Marc
>
> Thanks for mentioning the Topfkreis. It seems like it should work much better, and is so obvious once you see it. I will have to
> make one.
>
> tom
> K0TAR

2161. Re: "interesting" antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 02:58:25 UTC
From: Buck <not@this.time>
Message-ID: <241062psj9m00dcbo0k2f4fkolv45q55n2@4ax.com>
Source record: 59803

On Mon, 8 May 2006 15:57:13 -0500, "Steve N."
<stuevue.nouskuowuicuz@moutouroula.com> wrote:

>
><mcalhoun@ksu.edu> wrote in message news:e3itbh$eb5@unix1.cc.ksu.edu...
>> >> I just think the great stories of rain gutters, chimneys, fire escapes,
>> >> etc. reflect the spirit of individual experimentation that, to me, is
>> >> the heart of ham radio. Maybe not the brain, but the heart.
>>
>> >You must love Kurt N. Sterba's tales of using bedsprings,
>> >ladders, and garbage cans for antennas.
>>
>> And don't forget the (QST?) pictures of "car antennas" several years
>> ago: two cars sitting almost bumper-to-bumper and fed with coax as a
>> very-low dipole at the almost-touching bumpers. Truly a "car antenna"
>> (but not very mobile)!
>
>> --Myron A. Calhoun.
>
>
>Now THAT one I haven't seen.
>
>HOWEVER, I DO have a picture (Dad's) of two hams and their cars side by
>side. W9SH and W9IT
>
>Of course they had call plates! What'd you expect! Ya think QST'd print it
>????
>
>73, Steve, K9DCI
>

I don't know if it is the same article, but I read about someone who
connected two cars and added a little wire to make up a 20 meter
dipole.

--
73 for now
Buck
N4PGW

2162. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 03:01:23 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <7CT7g.12612$Lm5.6984@newssvr12.news.prodigy.com>
Source record: 59804
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"Tom Ring" <news0002@taring.org> wrote in message
news:445fdfe7$0$6149$39cecf19@news.twtelecom.net...
> Radio Buff wrote:
>
>> I'm afraid we can expect more and more of this as time goes on.
>>
>>
>> SC
>
> GOAT
>

It's actually a good thing when folks come over from "the Dark Side". When new to Hamdom it's almost certain they'll slip up and occasionally use their old "jargon". When they correct themselves it's also a good thing, since it means they are aware of their faux pas and are working at improving their operating procedure and language.

Harold
KD5SAK

2163. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 03:14:05 UTC
From: Harbin <harbinjr@adelphia.net>
Message-ID: <xNKdnePQUp5mlf3Z4p2dnA@adelphia.com>
Source record: 59805

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message news:e3obpl$bo9$1@avnika.corp.mot.com...

Harbin,
You seem to understand the "J-Antenna". What you really seem to be asking is how far apart is "too far" for a balanced transmission line. That's a question I can't answer and I'm sure others can, but , in the common custom of adding obtuse references which sort of seem to be relevant... what about that old one wire transmission like the "G-Line"? [no joke]

73, Steve, K9DCI

Hi Steve:
I have read about the G-Line, which is very low loss (so claimed). Have
you heard of anybody that has used this line?

2164. Re: question: NEC2 w/ ground parms.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 03:31:34 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <q2U7g.15540$FI1.4300@edtnps89>
Source record: 59806

"rjtucke" <rjtucke@gmail.com> wrote in message
news:1147113726.994153.85150@j73g2000cwa.googlegroups.com...
> Per emailed request, here is my deck:
> CM 40/15M folded dipole model by NS7F
> CE
> GW 1 11 -10.2761 0.0508 10.0000 10.2761 0.0508 10.0000
> 0.0016
.
.
.
> GN 2 0 0 0 12.0000 -0.007
> RP 0 35 71 1001 0.0000 0.0000 5.0000 5.0000
> EN
>

My first observation is that your soil conductivity is < zero.
Should always be > zero (GN card should be: GN 2 0 0 0 12.0000
0.007).
I am certain that this would give you the kind of error messages
you are seeing. The program actually runs under these conditions, using
Nittany's NEC-Win Pro,
but produces erroneous results -- input impedance, radiation patterns etc.

Correcting the conductivity gives much more realistic results: resonant at
6.8 MHz,
Zin 700 ohms, classic dipole pattern.

Your segmentation is probably a bit low for such close proximity conductors,
also
the segment sequence could be improved, but not important unless you want to
graph the conductor currents. I would suggest making the conductor segments
equal to the triangle side lengths. This may change the results a little,
but the
correct sign for conductivity will make a big difference.

Regards,

Frank

2165. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 10:36:29 UTC
From: nm5k@wt.net
Message-ID: <1147170989.818265.217430@i40g2000cwc.googlegroups.com>
Source record: 59807
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

>My point was that few people here think beyond the dipole, quarter wave
>vertical, or shortened mobile vertical. And all of those for HF. The
>group is broad minded in many ways, but very narrow in others.

Oh, I think people think about them. They probably just don't talk
about
them as much. You think I'm stuck to HF? Wanna come look at my
latest 144 yagi that is nearly as long as the f/b width of my house?
"30 ft boom"
Seems I just commented about rat shack UHF antennas yesterday if I
remember right. I usually talk about what other people talk or ask
about..
To tell the truth, I'm about bored with the whole mess, and don't post
as
much about any kind of antennas as I used to. I've got so many sticks
in the fire
lately, ham radio is just one wee small area I mess with. And I'm
getting more and
more bored with it every year. I used to be able to do 55-60 wpm on CW
in the
late 80's.
But due to my lack of activity the past few years, I'm slipping down to
snail
pace CW. Now I can only do about 35-40 wpm, and it gets a bit slower
every
year. If you want to talk about different topics, it's up to you to
start them.
We can't read your mind on the internet...
MK

2166. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 12:05:57 UTC
From: Jon Kåre Hellan <dev@null.com>
Message-ID: <1mfyjjcsii.fsf@persaunet.uninett.no>
Source record: 59808

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> writes:

> OOPS! Jon,
> IF it is "end-fed" is isn't a "di-pole". It is just a half wave. I
> guess it is technically a monopole.

Sort of, sort of. The feed point is actually in the middle of the half wave. Traditionally, it's called coaxial sleeve antenna. Except originally, the sleeve was outside the coax braid. In this variation, due to LA1IC Rolf Brevig, the sleeve is the outside of the coax, and the end of the sleeve is a choke. He's written about it in English in CQ, 1999, Aug pg 22. The version in Norwegian is on the web at http://www.la2t.org/teknikk/vertikal2m.html.

I found an article from Microwave Journal about a very similar concept: http://www.ansoft.com/news/articles/04.05_MWJ.pdf. They use different kinds of choke, since they're at much higher frequencies. They report performance very similar to a dipole.

73 de LA4RT Jon

2167. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 13:20:33 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e3q4v1$1bvu$1@f04n12.cac.psu.edu>
Source record: 59809

kd5sak wrote:
> "Tom Ring" <news0002@taring.org> wrote in message
> news:445fdfe7$0$6149$39cecf19@news.twtelecom.net...
>> Radio Buff wrote:
>>
>>> I'm afraid we can expect more and more of this as time goes on.
>>>
>>>
>>> SC
>> GOAT
>>
>
> It's actually a good thing when folks come over from "the Dark Side". When
> new to Hamdom it's almost certain they'll slip up and occasionally use their
> old "jargon". When they correct themselves it's also a good thing, since it
> means they are aware of their faux pas and are working at improving their
> operating procedure and language.

newsgroups trimmed...

I don't care how people talk, as long as it is in civil fashion. (with
one exception)

But it strikes me odd that people who would *speak* such terms as
"73's", "QSL", and others, not to mention my all time favorite, "HI
HI", do not have much of an argument when they complain about a person
referring to S-units as "pounds".....

For cryin out loud, if its funny , LAUGH, don't say HI HI!

- 73 de Mike KB3EIA - ;^)

2168. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 14:39:46 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1147185586.504877.247690@u72g2000cwu.googlegroups.com>
Source record: 59810

I read the title and thought "awesome!"

I agree with KD5SAK. This guy is trying to fit in. This is how ham radio works for most new licensees, and it doesn't matter if there's a CW test or not, if the exams are multiple choice or not. They want to pick up the mannerisms and operating practices of HAMS just as, when they were on CB, they used the mannerisms and operating practices of CB'ers.

Get on the air and operate and be a good example for the newly licensed. If they give you a signal report of "nine pounds" give them a "5 by 9"

Eventually the CB jargon will get replaced by ham jargon. Eventually the CB behavior will get replaced by ham behavior. Like building and analyzing antennas! And talking about them on the antenna newsgroups! And not going off topic! And being at fault for off topic posting even though I knew I should resist but it's such a tempting topic, and...

73 (no 'S!)
Dan
N3OX

2169. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 15:10:52 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <0i28g.70098$F_3.9084@newssvr29.news.prodigy.net>
Source record: 59811

"Michael Coslo" <mjc5@psu.edu> wrote in message
news:e3q4v1$1bvu$1@f04n12.cac.psu.edu...
> kd5sak wrote:
>> "Tom Ring" <news0002@taring.org> wrote in message
>> news:445fdfe7$0$6149$39cecf19@news.twtelecom.net...
>>> Radio Buff wrote:
>>>
> For cryin out loud, if its funny , LAUGH, don't say HI HI!
>
>
> - 73 de Mike KB3EIA - ;^)

Newbie that I am(Tech, early 2003 and General, mid 2005) , I agree. And as far as Hi Hi goes, I always figured the early first users of the term probably meant for it to be read Hee Hee rather than High High. Again, as a newbie, I profess no great insight, I just express an opinon. I don't use either the 73 or the Hi Hi in QSOs or EMails, it strikes me as an affectation, but that may just be my newbie insecurity speaking.(g)

Harold
KD5SAK

2170. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 15:23:07 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <_86dnQp_25JGLv3ZRVn-tQ@comcast.com>
Source record: 59812

kd5sak wrote:

SNIPPED
>
> Newbie that I am(Tech, early 2003 and General, mid 2005) , I agree. And as
> far as Hi Hi goes, I always figured the early first users of the term
> probably meant for it to be read Hee Hee rather than High High. Again, as a
> newbie, I profess no great insight, I just express an opinon. I don't use
> either the 73 or the Hi Hi in QSOs or EMails, it strikes me as an
> affectation, but that may just be my newbie insecurity speaking.(g)
>
> Harold
> KD5SAK
>
>

HI HI .... is, please forgive the reference to a hot topic, laughter when operating MORSE CODE [there I said it!!].

73, ---.. ...--, is BEST REGARDS in the same ridiculed transmission. mode.

If we are going to drop the talent for MORSE CODE we should be 100% logical and stop using acronyms that have meaning that are rooted in MORSE CODE such as:

QRL, QSO, CQ, QRM, QRN, QSB, QSY, QLF, QRS, 73, 88, HI, GD, GE, GM, TNX, DX, etc.

We should delete reference to RST on our confirmation cards [NOT QSL card]. We should delete GS and use DOLLARS.

Would someone start a petition to the ARRL that advocates that we should clean up our act?

2171. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 15:33:37 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <5bd162l54g4id7pouog2pt4ocavgl82pso@4ax.com>
Source record: 59813
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

ORIGINAL MESSAGE:

On 7 May 2006 17:34:33 -0700, hot-ham-and-cheese@hotmail.com wrote:

>> Let's require a EE degree instead of Morse Code.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
>Probably easier to get for some people, and could actually lead to a
>good paying career in electronics.

********** REPLY SEPARATOR **********

Speaking of leading to a good paying career, if you're going to learn a skill, how about learning typing instead of Morse? Get on RTTY or PSK31 or one of the other digital modes and develop a useful, saleable skill. There isn't an employer in the world today (except possibly the ARRL) who would be impressed that you know Morse, but lots would like it if you could type.

Bill, W6WRT

2172. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 15:38:23 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <bqd162lu2c83cgfljvpv01llepb85reare@4ax.com>
Source record: 59814

ORIGINAL MESSAGE:

On Tue, 09 May 2006 09:20:33 -0400, Michael Coslo <mjc5@psu.edu>
wrote:

>do not have much of an argument when they complain about a person
>referring to S-units as "pounds".....
>

********** REPLY SEPARATOR **********

Couldn't agree more. Everybody knows S-units are metric. :-)

Bill, W6WRT

2173. blame thiose responible

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 16:05:46 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1147190746.045447.54120@e56g2000cwe.googlegroups.com>
Source record: 59815
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Sinpo Code wrote:
> Lancer <lancer@rock.com> wrote in
> news:08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com:
>

>
> I don't remember who was all in it, but one guy kept dropping the
> soldering iron on the ground in front of people, then he'd bend over
> slowly to pick it up again like he was hoping someone might give him a
> poke. Disgusting.
>
how is any that the ARRL's fault

you don't like the ARRL neither do I

but blame it for something it has done please
> SC

2174. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 16:19:38 UTC
From: szekeres@pitt.edu
Message-ID: <e3qffj$h55$1@usenet01.srv.cis.pitt.edu>
Source record: 59816
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

In article <5bd162l54g4id7pouog2pt4ocavgl82pso@4ax.com>, noway@nohow.com wrote:
>ORIGINAL MESSAGE:
>
>On 7 May 2006 17:34:33 -0700, hot-ham-and-cheese@hotmail.com wrote:
>
>
>>> Let's require a EE degree instead of Morse Code.
>>> --
>>> 73, Cecil http://www.qsl.net/w5dxp
>>
>>Probably easier to get for some people, and could actually lead to a
>>good paying career in electronics.
>
>********** REPLY SEPARATOR **********
>
>Speaking of leading to a good paying career, if you're going to learn
>a skill, how about learning typing instead of Morse? Get on RTTY or
>PSK31 or one of the other digital modes and develop a useful, saleable
>skill. There isn't an employer in the world today (except possibly the
>ARRL) who would be impressed that you know Morse, but lots would like
>it if you could type.
>
>Bill, W6WRT

How about typing while decoding CW?
Did anybody learn RTTY ?

greg
N6GS

2175. Re: cw trolling

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 16:22:06 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147191726.015561.266570@j33g2000cwa.googlegroups.com>
Source record: 59817
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Steve N. wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1146857107.822936.121660@y43g2000cwc.googlegroups.com...
> > Steve N. wrote:
>
> > > Should stay that way...
>
> Silent, I meant. (in case you missed that one)
nope i did not miss it I ignored it
>
>
> > > "Silent Key" <cw.h@m.bands> wrote in message
> > > news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
> > > > What's the purpose of ham radio, ...
> > > > SC
> > > Well, "SC" a.k.a. troll,
> > > Cw, when it came along, was frowned uopn and was predicted to be the
> death
> > > of ham radio as well. Did you know that?
>
> > hmm I knew that about AM and SSB but not CW do you happen to have a
> > reference for that? (might be useful)
>
> Whoever you are,
> I believe you will find this in the book about the early days of amateur
> radio. It is called something like "200 Meters and Down", or is it "Below".
> ARRL has it and many ham stores do. I have a copy and have difficulty
> remembering the exact title. A really nice read. I also have a 1932 ARRL
> handbook and I think there are references to the "doom of the advent of CW"
> in there also.
ty
>
> . You, of course, know about spark. The sparkies didn't like CW and, at
> that time, the FCC __DID__ out law it (spark, that is).

honestlyspark is a bit before my time I have been curious about the
mood but not enough spare time to follow up

> I admit that it was a loaded question because CW stands for Continuous Wave
> and what differentiates it from" Spark". Probably not what the troll wanted
> and I know he/she/it wouldn't respond, but did it anyway.
indeed
>

>
> > > Your fingers and eyes (or ears) aren't broke....
> > are you sure? his brain seem to be
>
> A given and my point exactly.
>
> > >.. so why aren't you out mentoring new hams? ... Why am *I* wasting my
> time with this...pfffvt
>
> > maybe becuase you are tired of this divisve pissing contest or something
> like that
>
> Yea. A vent is in order every once-in-a-while, I guess. I figured the
> CW doom thing would get a comment, so thanks - whomever you may be..
yw
>
> 73, Steve, K9DCI

2176. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 17:18:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <F948g.70137$F_3.11799@newssvr29.news.prodigy.net>
Source record: 59818
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

GregS wrote:
> Did anybody learn RTTY ?

Now there's a real challenge. What baud rate would be required
for a human being to copy RTTY by ear?
--
73, Cecil http://www.qsl.net/w5dxp

2177. Re: HF Mobile - Grounding Antenna when stationary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 17:41:59 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <9s07j3-dlp.ln1@p400bob.personal.cox.net>
Source record: 59819

Some interesting responses you have received. I think however something important has been missed.

On HF frequencies the received signal level is unimportant. What is important is the "largest difference" possible between the signal level and the noise level. In many cases improving an antenna tends to increase both noise and signal received by equal amounts amounts. (I should point out that this improvement does help transmitting though as at the other end you become a stronger signal relative to noise) A ground improvement in your case may reduce some losses but wont affect the S/N.

So ask yourself what you would do to increase the S/N ratio. A directive antenna may help, reducing local noise (like from generators etc) will too. I would guess that given you are mobile your options are limited. There have also been suggestions already about other antenna systems to try. If however RX S/N is the most important to you I would try a magloop for receive and a dipole or 1/4 wave GP for transmit!

Cheers Bob VK2YQA

OZUser wrote:
> As an avid 4WD SUV owner I do a lot of outback travelling (Austrlian
> Deserts, Cape York, Kimberly Coast) and as such have a Barrett 950 HFradio
> &Barrett 910 Autotune antenna installed for comms.
>
> Would it be preferable when camped / stationary to earth the vehile to a
> "ground" ground = what I am looking for is a better receive signal ?????
>
>
>

2178. Re: HF Mobile - Grounding Antenna when stationary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 18:37:11 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrne61oe3.29i6.bit-bucket@shell.config.com>
Source record: 59820

On Tue, 09 May 2006 12:41:59 -0500, Bob Bob wrote:
> OZUser wrote:
>> As an avid 4WD SUV owner I do a lot of outback travelling (Austrlian
>> Deserts, Cape York, Kimberly Coast) and as such have a Barrett 950 HFradio
>> &Barrett 910 Autotune antenna installed for comms.
>>
>> Would it be preferable when camped / stationary to earth the vehile to a
>> "ground" ground = what I am looking for is a better receive signal ?????
>
> Some interesting responses you have received. I think however something
> important has been missed.

Yes, indeed. Some good fashioned old amateur radio experimenting.

[Top Posting corrected]
Jonesy W3DHJ

2179. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 18:46:57 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <_tqdna8upvE8fv3ZnZ2dnUVZ_uudnZ2d@comcast.com>
Source record: 59821
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Cecil Moore wrote:
> GregS wrote:
>
>> Did anybody learn RTTY ?
>
>
> Now there's a real challenge. What baud rate would be required
> for a human being to copy RTTY by ear?

If I remember properly, it was a L O N G T I M E A G O, didn't
Katashi Nose, KH6IJ, learn to copy RTTY at the Hawaii station?

He could certainly crank CW. He spoke at a meeting of the local radio
club in the mid 1950s [Yankee Radio Club, Salem Massachusetts]

Gosh, if I remember properly, I'm getting OLD. Now if I can find my
driver's license I can figure out my birthday!

2180. Re: Elimination of CW is a loss in the number of ways we can commun...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 19:58:16 UTC
From: richardharrison@webtv.net
Message-ID: <20718-4460F458-17@storefull-3255.bay.webtv.net>
Source record: 59822

Cecil, W5DXP wrote:
"What Baud rate would be required for a human to copy RTTY by ear?"

The Baud rate is about twice the bandwidth according to Bell Labs`
Nyquist. Then Shannon, also of Bell Labs came along saying information
could be transferred much faster if the signal to noise were 30 dB or
better.

Using the standard Baudot or Teletypewriter code, about 8.000 words per
minute can be transmitted.

Operators who can copy Teletype by ear are likely to be rare indeed.

Best regards, Richard Harrison, KB5WZI

2181. strange squelch acting.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 20:32:54 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1147206774.753662.313250@v46g2000cwv.googlegroups.com>
Source record: 59823

Dear fellow antenna lovers,
I have an extra 2m radio(IcomV-8000) in my living room. I use a
magnet-mount 5/8 wave
antenna on the radiator cover. I never had any problems reaching the
local club repeater about
15miles away. I only use it to keep "watch" over the repeater so to
speak,while downstairs
cooking,cleaning,etc. It always worked very well in that use.
Recently....NO MATTER where I position the mag. on the cover, I GET
a small signal that
"CAN'T" be squalched away !!! It's just white noise/static !!! IF I
move my handie-talike to around the same area(with-in 10-12 ft.) IT
ALSO reacts the same way !! WHAT COULD BE causing this PHENOM ???
I have changed the power supply.....nothing changes the problem. I
shut off the computor......the cable unit.....the T.V.,nothing seems to
STOP that
small signal,ONLY on 146.970mhz that it happens. ONLY that
signal...and on both 2m radios. Can't squalch it out....this is
driving me co-co !!! The antenna is right next to a picture
window....but that really doesn't matter 'cause it does it on the
Handie-talkie,same frequency,day or night. Can't figure this one
out.....any ideas what to do ??? please...

73's, Paladin

2182. Re: strange squelch acting.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 21:14:22 UTC
From: dplatt@radagast.org
Message-ID: <12621henlh05ga4@corp.supernews.com>
Source record: 59824

In article <1147206774.753662.313250@v46g2000cwv.googlegroups.com>,
Paladin <kb1ghh@hotmail.com> wrote:

> Recently....NO MATTER where I position the mag. on the cover, I GET
>a small signal that
>"CAN'T" be squalched away !!! It's just white noise/static !!! IF I
>move my handie-talike to around the same area(with-in 10-12 ft.) IT
>ALSO reacts the same way !! WHAT COULD BE causing this PHENOM ???

I've seen 2-meter spectrum noise from:

- Cable-TV leakage - worst is around 145.250, apparently due to the
video carrier leakage on Cable Channel 18.

- Multiple spurs generated by a switching power-supply regulator in
a Netgear wireless access point / IP router. The spurs were
apparently being radiated directly from the PC board, out through
the case - the power supply lead was adequately choked but this
didn't stop direct radiation. Other models of router (including
one from the same manufacturer) did not exhibit the problem.

- Noise radiated from telephone lines which have DSL networking
service enabled. Although the DSL signal is supposed to fall
entirely within the HF range, I believe that it has significant
harmonics up into the VHF which are not filtered out by the DSL
modems.

- Harmonic noise generated by a defective oscillator in an Ethernet
hub. This one was a doozie - it drifted through the 2-meter band
as temperature changed, and it caused horrendous squelch-tail
buzzing on several repeaters miles away when it drifted through
their input frequencies. Apparently it was radiating out through
the owner's Ethernet cables, and also getting back into the
building wiring through the power cord.

A device doesn't have to be complex to cause VHF QRM! Although it
didn't actually cause QRM, I did find another source of possible
interference recently when I tested and repaired a little two-tone
audio oscillator another ham had given me. It was a simple
battery-powered two-transistor oscillator based on a 1970s article in
QST. Due to its design (two simple twin-T oscillators using 2N2222
transistors) it was prone to break into a parasitic oscillation at one
point in the audio curve... it was putting out a nice 1 kHz audio
sinewave, with a VHF parasitic around 20 dB lower in amplitude,
wandering around from 130 to 160 MHz. One ferrite bead on the base
lead of each of the two transistors completely cured the problem.

Other people have reported nasty-noisy signals from oscillations in
TV-antenna preamplifiers... these have caused interference to 2-meter
ham operators, aviation band, and even to GPS (see the page at
http://www.gpsworld.com/gpsworld/article/articleDetail.jsp?id=43404
for a summary).

> Can't figure this one
>out.....any ideas what to do ??? please...

Do the "turn off and unplug" bit again, but go even further. For
starters, try turning off the main breaker for your whole
house/apartment. This will be a very clear way of telling you whether
the noise source is internal or external.

If it's internal to your home, turn the breaker back on and then start
unplugging every single device in the house (no matter how apparently
harmless) one at a time until the QRM goes away.

If it's external, go hunting. Get yourself a 2-meter directional beam
antenna (or make one - Google for "tape measure Yagi") and start
DF'ing.

If you track it to a neighbor's house, introduce yourself politely and
explain the problem and try to enlist their cooperation in finding the
source of the emission.

See if you can find someone in your area who has an RF spectrum
analyzer good up to 150 MHz or so. It can be very instructive to look
at the whole 2-meter band, and see whether you're seeing a single
carrier, broadband noise, or multiple narrowband spurs. A spectrum
analyzer, hooked to a portable Yagi via a 20' coax, makes a *very*
nice "characterize and locate" tool.

When I helped my city's RACES EC locate the source of some nasty
2-meter RFI which was desquelching his radios and interfering with his
ability to receive simplex, it took about 10 minutes with an
analyzer-and-Yagi combination for me to be able to say "Well, it's
your next-door neighbor's condo, upstairs, in the back, polarized at
around 45 degrees from the vertical. and is multiple spurs at about
50 kHz separation."

The bad news is that on many 2-meter frequencies, there's so much hash
and garbage in urban areas that it's necessary in practice to turn on
a receiver's tone-squelch, and force the receiver to remain muted
until it hear's a repeaters output CTCSS tone. If your repeater
doesn't put tone on its output, then this won't work, alas.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2183. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 21:20:18 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44610792.8010201@fuse.net>
Source record: 59825

Dave wrote:
> kd5sak wrote:
>
> SNIPPED
>
>>
>> Newbie that I am(Tech, early 2003 and General, mid 2005) , I agree.
>> And as far as Hi Hi goes, I always figured the early first users of
>> the term probably meant for it to be read Hee Hee rather than High
>> High. Again, as a newbie, I profess no great insight, I just express
>> an opinon. I don't use either the 73 or the Hi Hi in QSOs or EMails,
>> it strikes me as an affectation, but that may just be my newbie
>> insecurity speaking.(g)
>>
>> Harold
>> KD5SAK
>>
>
> HI HI .... is, please forgive the reference to a hot topic,
> laughter when operating MORSE CODE [there I said it!!].
>
> 73, ---.. ...--, is BEST REGARDS in the same ridiculed transmission.
> mode.
>
> If we are going to drop the talent for MORSE CODE we should be 100%
> logical and stop using acronyms that have meaning that are rooted in
> MORSE CODE such as:
>
> QRL, QSO, CQ, QRM, QRN, QSB, QSY, QLF, QRS, 73, 88, HI, GD, GE, GM, TNX,
> DX, etc.
>
> We should delete reference to RST on our confirmation cards [NOT QSL
> card]. We should delete GS and use DOLLARS.
>
> Would someone start a petition to the ARRL that advocates that we should
> clean up our act?
>
>
I suppose there are many "affectations" like OM, or Old Man and FB, or
Fine Business. Just to add to the list.

All appear to be derived from CW operations.

I think they're great.

Nothing, especially jargon, is unchanging. I suspect some CB jargon could bleed over. I must say that "nine pounds" won't be used by me, however.

John
AB8WH

2184. Re: cw trolling

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 22:10:15 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e3r409$k7d$1@avnika.corp.mot.com>
Source record: 59829
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"RHF" <rhf-newsgroups@pacbell.net> wrote in message
news:1147122594.900336.272650@u72g2000cwu.googlegroups.com...
> The FCC Outlawed 'Spark' for very valid technical reasons
> at that time and they are still valid today. The very same
> logic could be used to still justify the continued use of CW
> as an Amateur Operating Mode; even though the requirement
> for proficiency in CW is not used for an Amateur License.
>
> jm2cw ~ RHF

RHF,
My point was ...this time the FCC is NOT *eliminating* nor *Outlawing CW.
(as far as we know)
Spark *did* suck, but even so there were those that hated CW.

73, Steve, K9DCI

2185. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 22:15:25 UTC
From: Signal Chaser <em@il.here>
Message-ID: <1w88g.2089$u4.1888@newsread1.news.pas.earthlink.net>
Source record: 59826
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"an old friend" <kb9rqz@hotmail.com> wrote in
news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:

>
> Sinpo Code wrote:
>> Lancer <lancer@rock.com> wrote in
>> news:08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com:
>>
>
>>
>> I don't remember who was all in it, but one guy kept dropping the
>> soldering iron on the ground in front of people, then he'd bend over
>> slowly to pick it up again like he was hoping someone might give him a
>> poke. Disgusting.
>>
> how is any that the ARRL's fault

ARRL threw principle out the window when they caved in to the demands of
the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
I opened my beloved QST magazine and there on the pages were photos of
queers on a Tropical DXpedition, and in living color no less. The ARRL
wanted us to embrace a sick perverted lifestyle and be one big happy
family. To me, it was the spark that signaled the death of a once proud
organization, and it turned liberal.

SC

2186. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 22:15:27 UTC
From: Radio Buff <em@il.here>
Message-ID: <3w88g.2090$u4.219@newsread1.news.pas.earthlink.net>
Source record: 59827
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"kd5sak" <kd5sak@sbcglobal.net> wrote in
news:7CT7g.12612$Lm5.6984@newssvr12.news.prodigy.com:

>
> "Tom Ring" <news0002@taring.org> wrote in message
> news:445fdfe7$0$6149$39cecf19@news.twtelecom.net...
>> Radio Buff wrote:
>>
>>> I'm afraid we can expect more and more of this as time goes on.
>>>
>>>
>>> SC
>>
>> GOAT
>>
>
> It's actually a good thing when folks come over from "the Dark Side".
> When new to Hamdom it's almost certain they'll slip up and occasionally
> use their old "jargon". When they correct themselves it's also a good
> thing, since it means they are aware of their faux pas and are working
> at improving their operating procedure and language.
>
> Harold
> KD5SAK

I chalked it up to a new op happy about working a new state. I remember having the same feelings he had when I was first licensed. I worked all states on CW before I ever made a voice contact because Novices weren't allowed phone priviledges when I got licensed. It was a blast and helped my code speed so I could upgrade to general with little effort.

My problem, a lot of new ops aren't leaving old CB operating practices behind. That is what will destroy ham radio, The CB like behavior.

It must be human nature, when you get something for nothing, you don't appreciate it as much, or try to take care of it the same as something you had to work for. That's why dumbing down ham tests is bad. Having a license doesn't mean anything.

2187. Re: strange squelch acting.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 22:15:29 UTC
From: Slow Code <em@il.here>
Message-ID: <5w88g.2091$u4.1862@newsread1.news.pas.earthlink.net>
Source record: 59828

"Paladin" <kb1ghh@hotmail.com> wrote in
news:1147206774.753662.313250@v46g2000cwv.googlegroups.com:

> Dear fellow antenna lovers,
> I have an extra 2m radio(IcomV-8000) in my living room. I use a
> magnet-mount 5/8 wave
> antenna on the radiator cover. I never had any problems reaching the
> local club repeater about
> 15miles away. I only use it to keep "watch" over the repeater so to
> speak,while downstairs
> cooking,cleaning,etc. It always worked very well in that use.
> Recently....NO MATTER where I position the mag. on the cover, I GET
> a small signal that
> "CAN'T" be squalched away !!! It's just white noise/static !!! IF I
> move my handie-talike to around the same area(with-in 10-12 ft.) IT
> ALSO reacts the same way !! WHAT COULD BE causing this PHENOM ???
> I have changed the power supply.....nothing changes the problem. I
> shut off the computor......the cable unit.....the T.V.,nothing seems to
> STOP that
> small signal,ONLY on 146.970mhz that it happens. ONLY that
> signal...and on both 2m radios. Can't squalch it out....this is
> driving me co-co !!! The antenna is right next to a picture
> window....but that really doesn't matter 'cause it does it on the
> Handie-talkie,same frequency,day or night. Can't figure this one
> out.....any ideas what to do ??? please...
>
>
> 73's, Paladin

You might see if you can get them to change the frequency of the repeater.

SC

2188. Re: strange squelch acting.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 22:35:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126269t8n8f5da4@corp.supernews.com>
Source record: 59830

Dave Platt wrote:
>
> I've seen 2-meter spectrum noise from:
> . . . .

I'll add GPS receivers to that list. I've seen some pretty big spurs on 2 meters from a couple of units I've owned. But it's not the sort of thing that's usually on constantly in a residential area.

Roy Lewallen, W7EL

2189. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 22:36:30 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <zsednQItNOzyhPzZnZ2dnUVZ_tCdnZ2d@comcast.com>
Source record: 59831
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

>>> I don't remember who was all in it, but one guy kept dropping the
>>> soldering iron on the ground in front of people, then he'd bend over
>>> slowly to pick it up again like he was hoping someone might give him a
>>> poke. Disgusting.
>>>
>> how is any that the ARRL's fault
>
>
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.

I'll bet you try to pass yourself off as a Christian.... I guess you never
really learned some of the most important lessons.
The first lesson is to treat *EVERYBODY* with the same courtisy and respect
that you expect from them.

Welcome to my killfile.

PLONK

2190. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 22:51:25 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <N198g.68644$_S7.49503@newssvr14.news.prodigy.com>
Source record: 59832

"jawod" <jawod@fuse.net> wrote in message news:44610792.8010201@fuse.net...
> Dave wrote:
>> kd5sak wrote:
>
> Nothing, especially jargon, is unchanging. I suspect some CB jargon could
> bleed over. I must say that "nine pounds" won't be used by me, however.
>
> John
> AB8WH

Yes, again I agree. I never used such terms when I was a CBer, all those years ago. I also didn't attempt the "L'il Abner" language distortions that became prevalent on that "band". Even in those days communication was the goal for me and my main hobby efforts involved antenna building. Even today, though Ham transceiver technology has far outstripped any possible homebrew efforts I might wish to try, I can still fiddle about with antennas and do. Aside from mobile antennas, the only "storebought" antenna I have is a Hustler 5BTV vertical. They're very popular among my local Ham club members, probably because we have such good local soil condutivity and they serve well ground mounted without radials.

Harold
KD5SAK

2191. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-09 22:59:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <M998g.84789$dW3.76743@newssvr21.news.prodigy.com>
Source record: 59833
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Radio Buff wrote:
> It must be human nature, when you get something for nothing, you don't
> appreciate it as much, or try to take care of it the same as something you
> had to work for. That's why dumbing down ham tests is bad. Having a
> license doesn't mean anything.

If we made getting a driver's license more difficult, would
people appreciate it more?
--
73, Cecil http://www.qsl.net/w5dxp

2192. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 00:51:35 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44613917.7090602@fuse.net>
Source record: 59834
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Signal Chaser wrote:
> "an old friend" <kb9rqz@hotmail.com> wrote in
> news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:
>
>
>>Sinpo Code wrote:
>>
>>>Lancer <lancer@rock.com> wrote in
>>>news:08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com:
>>>
>>
>>>I don't remember who was all in it, but one guy kept dropping the
>>>soldering iron on the ground in front of people, then he'd bend over
>>>slowly to pick it up again like he was hoping someone might give him a
>>>poke. Disgusting.
>>>
>>
>>how is any that the ARRL's fault
>
>
>
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
>
>
> SC
what bullshit

Isn't EVERYONE tired of this thread by now?

2193. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 00:56:30 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147222590.664632.40530@j73g2000cwa.googlegroups.com>
Source record: 59835
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Cecil Moore wrote:
> Radio Buff wrote:
> > It must be human nature, when you get something for nothing, you don't
> > appreciate it as much, or try to take care of it the same as something you
> > had to work for. That's why dumbing down ham tests is bad. Having a
> > license doesn't mean anything.
>
> If we made getting a driver's license more difficult, would
> people appreciate it more?
no we would have more unlicensed drivers (and uninsured ones)

Indeed I think the current promotes more of an "I earned so I can do
whatever i want attiutde" than any increased respect for the rules
> --
> 73, Cecil http://www.qsl.net/w5dxp

2194. balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 00:58:39 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147222719.534150.40150@v46g2000cwv.googlegroups.com>
Source record: 59836
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

```
jawod wrote:
> Signal Chaser wrote:
> > "an old friend" <kb9rqz@hotmail.com> wrote in
> > news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:
> >

> >
> > SC
> what bullshit
>
> Isn't EVERYONE tired of this thread by now?
not the gay bashers they never gettired
```

2195. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 01:43:50 UTC
From: mcalhoun@ksu.edu
Message-ID: <e3rggm$b8h@unix1.cc.ksu.edu>
Source record: 59837

<< I once made a J-pole from 300-ohm twinlead and tweaked it until it worked
<< OK while hanging from the ceiling, but when I moved it over next to a
<< wood-framed picture window (hung it from the window casing), the SWR went
<< to pot. Did I do something wrong?

<What kind of metal was behind the window frame?

The house was old enuf that I'm sure it was made of wood, and
since it was a PICTURE window, there were no sash weights, either.

So the question remains: are J-poles sensitive to nearby materials?

--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

2196. Re: 3 Wired Antenna Build.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 01:50:46 UTC
From: mcalhoun@ksu.edu
Message-ID: <e3rgtm$bni@unix1.cc.ksu.edu>
Source record: 59838

>The design I have seen is a 3 wired type each side, where the 3 wires join
>together at each end.
>....[snip]....

Someone mentioned a bowtie, but with just a bit of not-looking-carefully-enuf, it might be a three-wire folded dipole?

IIRC, put a one-wire (each side) dipole high enuf and its impedance is about 72 ohms.

Use two wires and get 2x2x72 => 288 ohms (which everyone says matches 300-ohm line).

Use three wires and get 3x3x72 => about 650 ohms, which might be well fed with open-wire feeders?

I also recall folded dipoles are somewhat more broad-band than single-wire dipoles. (Because they are effectively "thicker"?)

Brings up another question: can folded-dipoles be good multi-band antennas?

--
--Myron A. Calhoun.
Five boxes preserve our freedoms: soap, ballot, witness, jury, and cartridge
PhD EE (retired). "Barbershop" tenor. CDL(PTXS). W0PBV. (785) 539-4448
NRA Life Member and Certified Instructor (Home Firearm Safety, Rifle, Pistol)

2197. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 02:10:29 UTC
From: hot-ham-and-cheese@hotmail.com
Message-ID: <1147227029.330426.301290@i39g2000cwa.googlegroups.com>
Source record: 59839
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Radio Buff wrote:
> I'm afraid we can expect more and more of this as time goes on.
>
>
> SC

"I got me???"

And you complain about other Ops?

Indeed.

2198. Re: Elimination of CW is a loss in the number of ways we cancommun...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 02:16:42 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <e2c8g.8607$QP4.974@fed1read12>
Source record: 59840

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:20718-4460F458-17@storefull-3255.bay.webtv.net...
> Cecil, W5DXP wrote:
> "What Baud rate would be required for a human to copy RTTY by ear?"
>
> The Baud rate is about twice the bandwidth according to Bell Labs`
> Nyquist. Then Shannon, also of Bell Labs came along saying information
> could be transferred much faster if the signal to noise were 30 dB or
> better.
>
> Using the standard Baudot or Teletypewriter code, about 8.000 words per
> minute can be transmitted.

In the heyday of RTTY as I remember it, you could put two 8-channel muxes
(85 Hz AFSK per channel) into one SSB transmitter. One of the muxes was
at baseband and the other was heterodyned up by about 1800 KHz and
"stacked" on top. Nyquist might predict 8,000 wpm capability but I never
saw hardware that approached that number. With QPSK, I dunno ...

>
> Operators who can copy Teletype by ear are likely to be rare indeed.
>

I can recognize a test tape of RY's and I can hear the periodic <CR> <CR>
<LF>
but I can't recognize any of the alphabet, even at 60 WPM (45 baud)

2199. Re: strange squelch acting.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 02:24:52 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <U9c8g.8608$QP4.4220@fed1read12>
Source record: 59841

"Paladin" <kb1ghh@hotmail.com> wrote in message
news:1147206774.753662.313250@v46g2000cwv.googlegroups.com...
> Dear fellow antenna lovers,
> I have an extra 2m radio(IcomV-8000) in my living room. I use a
> magnet-mount 5/8 wave
> antenna on the radiator cover. I never had any problems reaching the
> local club repeater about
> 15miles away. I only use it to keep "watch" over the repeater so to
> speak,while downstairs
> cooking,cleaning,etc. It always worked very well in that use.
> Recently....NO MATTER where I position the mag. on the cover, I GET
> a small signal that
> "CAN'T" be squalched away !!! It's just white noise/static !!! IF I
> move my handie-talike to around the same area(with-in 10-12 ft.) IT
> ALSO reacts the same way !! WHAT COULD BE causing this PHENOM ???
> I have changed the power supply.....nothing changes the problem. I
> shut off the computor......the cable unit.....the T.V.,nothing seems to
> STOP that
> small signal,ONLY on 146.970mhz that it happens. ONLY that
> signal...and on both 2m radios. Can't squalch it out....this is
> driving me co-co !!! The antenna is right next to a picture
> window....but that really doesn't matter 'cause it does it on the
> Handie-talkie,same frequency,day or night. Can't figure this one
> out.....any ideas what to do ??? please...
>
>
> 73's, Paladin
>

I have it a little bit here and (can't recall) it might be the one I chased
last year. I went out for a one-on-one T-hunt and ended up back home,
pointing at my own garage door opener. It's proably LO radiation.

I picked it up in multiple locations, which was a puzzle at first. But now
I know which houses have a Genie Garage Door Opener ;-)

2200. Re: strange squelch acting.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 02:36:15 UTC
From: Buck <not@this.time>
Message-ID: <89k2629hh4esd707hon5jn5lrhko22lkji@4ax.com>
Source record: 59842

On 9 May 2006 13:32:54 -0700, "Paladin" <kb1ghh@hotmail.com> wrote:

>Dear fellow antenna lovers,
> I have an extra 2m radio(IcomV-8000) in my living room. I use a
>magnet-mount 5/8 wave
>antenna on the radiator cover. I never had any problems reaching the
>local club repeater about
>15miles away. I only use it to keep "watch" over the repeater so to
>speak,while downstairs
>cooking,cleaning,etc. It always worked very well in that use.
> Recently....NO MATTER where I position the mag. on the cover, I GET
>a small signal that
>"CAN'T" be squalched away !!! It's just white noise/static !!! IF I
>move my handie-talike to around the same area(with-in 10-12 ft.) IT
>ALSO reacts the same way !! WHAT COULD BE causing this PHENOM ???
>I have changed the power supply.....nothing changes the problem. I
>shut off the computor......the cable unit.....the T.V.,nothing seems to
>STOP that
>small signal,ONLY on 146.970mhz that it happens. ONLY that
>signal...and on both 2m radios. Can't squalch it out....this is
>driving me co-co !!! The antenna is right next to a picture
>window....but that really doesn't matter 'cause it does it on the
>Handie-talkie,same frequency,day or night. Can't figure this one
>out.....any ideas what to do ??? please...
>
>
> 73's, Paladin

I had a similar problem. I don't remember the frequency it covered,
but it was one of the local repeaters, I think it was 145.41. It came
up slowly stronger for a few days, and then I found it. it was a
signal being transmitted by dad's cordless phone base through the
power line so it covered the half of the house that circuit was on.
Once I found it, I had the phone replaced.

--
73 for now
Buck
N4PGW

2201. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 03:12:35 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <1262mh57s1pubbf@corp.supernews.com>
Source record: 59843
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Signal Chaser" <em@il.here> wrote in message
news:1w88g.2089$u4.1888@newsread1.news.pas.earthlink.net...
> "an old friend" <kb9rqz@hotmail.com> wrote in
> news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:
>
>>
>> Sinpo Code wrote:
>>> Lancer <lancer@rock.com> wrote in
>>> news:08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com:
>>>
>>
>>>
>>> I don't remember who was all in it, but one guy kept dropping the
>>> soldering iron on the ground in front of people, then he'd bend over
>>> slowly to pick it up again like he was hoping someone might give him a
>>> poke. Disgusting.
>>>
>> how is any that the ARRL's fault
>
>
> ARRL threw principle out the window when they caved in to the demands of
> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed when
> I opened my beloved QST magazine and there on the pages were photos of
> queers on a Tropical DXpedition, and in living color no less. The ARRL
> wanted us to embrace a sick perverted lifestyle and be one big happy
> family. To me, it was the spark that signaled the death of a once proud
> organization, and it turned liberal.
>
>
> SC

What I don't get is why we are forced to see
homosexuality in areas that have nothing to do with sex, such as the example
you mentioned.

2202. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 03:14:30 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <1262mkq6bjmk8df@corp.supernews.com>
Source record: 59844
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Noon-Air" <Noon-Air@comcast.net> wrote in message
news:zsednQItNOzyhPzZnZ2dnUVZ_tCdnZ2d@comcast.com...
>
>
>>>> I don't remember who was all in it, but one guy kept dropping the
>>>> soldering iron on the ground in front of people, then he'd bend over
>>>> slowly to pick it up again like he was hoping someone might give him a
>>>> poke. Disgusting.
>>>>
>>> how is any that the ARRL's fault
>>
>>
>> ARRL threw principle out the window when they caved in to the demands of
>> the Lambda Amateur Radio Club (LARC). It was a sad day for me indeed
>> when
>> I opened my beloved QST magazine and there on the pages were photos of
>> queers on a Tropical DXpedition, and in living color no less. The ARRL
>> wanted us to embrace a sick perverted lifestyle and be one big happy
>> family. To me, it was the spark that signaled the death of a once proud
>> organization, and it turned liberal.
>
> I'll bet you try to pass yourself off as a Christian.... I guess you never
> really learned some of the most important lessons.
> The first lesson is to treat *EVERYBODY* with the same courtisy and
> respect that you expect from them.
>
> Welcome to my killfile.
>
> *PLONK*
>
>
I guess you missed the part of the bible dealing with Sodom and Gomorra
being leveled because of deviant sex.

2203. Re: Looking for UHF only TV Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 03:28:19 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <hMKdnf9vIO9bwPzZRVn-hg@comcast.com>
Source record: 59845

"Dick, AA5VU" <aa5vuNOSPAM@arrl.net> wrote in message
news:aa5vuNOSPAM-AC3BB9.15183307052006@newsclstr02.news.prodigy.com...
>I have been looking for a UHF only outside TV antenna or plans on
> how to construct a double bow tie like antenna. Right now I have a 50
> foot short run of RG-59 to an upstairs patio post. At the end of the
> coax run I user an old TV antenna transformer to interface to the 300
> ohm lead from a single bow tie (that came with old TV). This setup
> works but surely there is something better. We are not that far from
> the transmission sites but an inside antenna will not work.
>
> Dick AA5VU

First, go to http://www.antennaweb.org/aw/Address.aspx and find out where
your stations are, and how big an antenna you need.
www.warrenelectronics.com sells all the stuff you will need. If you operate
any HF or VHF, you might want to get a UHF only mast mounted amplifier, to
keep TVI out. I have the ChannelMaster 7775, which works well. Ditch the
RG59, and get decent RG6 coax.

Tam/WB2TT

2204. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 03:56:31 UTC
From: Buck <not@this.time>
Message-ID: <nmo262dopas9jd55go8e6j4uid69gsp4ls@4ax.com>
Source record: 59846

On 9 May 2006 20:43:50 -0500, mcalhoun@ksu.edu wrote:

>So the question remains: are J-poles sensitive to nearby materials?

yes, and also, RF doesn't always saturate an area.

The wire in the j-pole is affected by the insulating material the twin lead is made from. Different types have different dimensions for the j-pole lengths.

Though it doesn't make sense sometimes, moving an antenna near a wall may cause a negative effect. I have that problem at my kids house. They are hams and I setup a hook in the ceiling to hang a pole. It worked, but their mom didn't want it hanging so far from the wall and moved it against the wall. It doesn't work. So we found a compromise spot near another wall, a corner actually. It works but it is leaning at about 20 degrees coming from the corner.

There is also a problem of RF holes. Mobile operators and HT or portable operators experience them the most. It is the cause of picket-fencing. The mobile moves from a hot spot to a not-so-hot spot. A portable rig can usually find the hot spot or the dead spot easily. I can hit the local repeater from inside my room with low power on my ht. outside about three feet away, I can't hit it on high power. It is further from the wall there.

Good luck
Buck

--
73 for now
Buck
N4PGW

2205. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 03:58:23 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <446164df$0$1016$39cecf19@news.twtelecom.net>
Source record: 59847
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

hot-ham-and-cheese@hotmail.com wrote:

> Radio Buff wrote:
>
>>I'm afraid we can expect more and more of this as time goes on.
>>
>>
>>SC
>
>
> "I got me???"
>
> And you complain about other Ops?
>
> Indeed.
>

Oh come now, it doesn't count, because he was already a ham! The other
guy was just a CBer that managed to pass a test!

Let's get a grip on reality here folks.

tom
K0TAR

2206. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 04:39:07 UTC
From: dplatt@radagast.org
Message-ID: <1262rjbni0pn39c@corp.supernews.com>
Source record: 59848

In article <e3rggm$b8h@unix1.cc.ksu.edu>, <mcalhoun@ksu.edu> wrote:

><What kind of metal was behind the window frame?
>
>The house was old enuf that I'm sure it was made of wood, and
>since it was a PICTURE window, there were no sash weights, either.
>
>So the question remains: are J-poles sensitive to nearby materials?

That depends on the materials. Conductive, or lossy-dielectric materials seem to have a significant effect especially when located near the high-impedance points.

When I built a ladder-line J-pole and hung it next to my house's outside wall, it de-tuned quite badly. Its performance stank so badly that I could barely reach a nearby repeater.

When I hung it by an inside wall, it was not de-tuned enough to affect the radio's performance appreciably (I didn't have an MFJ meter at the time and so don't know the actual degree of de-tuning). I was able to hit the repeater quite well even though the antenna was further inside the house.

The first (outside) wall was stucco... with embedded chicken wire. The second (inner) wall was drywall and lumber.

I suspect that exterior brick, or stone, or wet wood, would fall somewhere in between the two in terms of de-tuning potential.

My guess is that the classic J-pole may be somewhat more vulnerable to being de-tuned by nearby materials than a center-fed half-wave radiator. The quarter-wave matching section is often fairly critical of adjustment - I've read reports that even small changes in the configuration of the upper potion of the matching section (e.g. material near the open end of the stub, or changes in the spacing) can cause some fairly large changes in the J-pole's feedpoint impedance. Standard J-pole antennas seem to work most stably when built of rigid materials and mounted "in the clear".

I haven't read any reports of actual experiments which attempted to quantify the tuning stability of the classic J-pole, compared with variants like the Arrow (a.k.a. Cebik's nontypical design), the open-sleeve, and the sperrtopf coaxial design, or compared with a center-fed dipole or other varieties of halfwave radiator. It'd be an interesting study to try to put together.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2207. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 05:37:23 UTC
From: Buck <not@this.time>
Message-ID: <apu2625sflkql3nfec8dagkb22r6d7f4g4@4ax.com>
Source record: 59849

On Wed, 10 May 2006 04:39:07 -0000, dplatt@radagast.org (Dave Platt) wrote:

>My guess is that the classic J-pole may be somewhat more vulnerable to
>being de-tuned by nearby materials than a center-fed half-wave
>radiator.

My experience at my kids' place is that it has the same effect on the vertical dipole as it does with the jpole. I have a dipole I created by using wire inside a cpvc pipe. The coax was rolled up to form the choke balun. The dipole antenna has the same problem with hitting the local repeaters as the jpole did. In the same places, the two antennas had such similar effects that I could literally not tell a difference either in audio or signal strength as displayed by the radio. SUper J-Poles, on the other hand, perform much better than either the j-pole or the vertical dipole.

--
73 for now
Buck
N4PGW

2208. New thread, LMR400 resistance in a loop

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 09:05:54 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97BF15587A596doldridgsprintca@64.59.135.159>
Source record: 59850

Roy Lewallen <w7el@eznec.com> wrote in news:126269t8n8f5da4
@corp.supernews.com:

You're probably the right person to ask this. Do you know or have any idea what the resistance per foot is of the shield on LMR400 at 3.75mhz? I made a 55-inch diameter loop out of the stuff, using the inner conductor's capacity to resonate it and coupling with a gimmick wound on the outside out of 4-wire flat phone wire. Works pretty good, actually. I think it beats out my hamstick by a couple of db, but can't really be all that sure.

Also made a 2 turn job for 160 (it's smaller than the 75m one). It plays, too, but I'm sure it's not really very efficient. Still, any antenna that works is better than none at all, and with a 2nd story balcony as the only space to erect them in (or else indoors), I'm experimenting.

I may try something more ambitious in 3/4 inch soft-drawn copper pipe, about 6 feet in diameter. That should get me another 3 or 4 db, I think.

Still, these coax loops seem to be working amazingly well for something so simple and relatively inexpensive.

--
Dave Oldridge+
ICQ 1800667

2209. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 10:24:55 UTC
From: Mike Speed <mike8s2@yahoo.com>
Message-ID: <1147256694.983492.263500@e56g2000cwe.googlegroups.com>
Source record: 59851
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> What's the purpose of ham radio, To have fun talking about rigs and
> weather, or to be able to communicate?
>
> To be able to communicate when no one else can communicate and to advance
> radio knowledge & theory?
>
> What does part 97 say about this? Why does the ARRL ignore it?
>
> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> other lower life form of radio hobbiest. You name it.

You stupid Fucks - don't you kow a troll when you see one! Jesus
Christ!

2210. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 11:49:03 UTC
From: nm5k@wt.net
Message-ID: <1147261743.150515.119910@i39g2000cwa.googlegroups.com>
Source record: 59852
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

>What is one behavior on our ham bands that might or could make you loose
>interest in ham radio and leave if you heard it or if it became previlent?

None. I have fairly thick skin, and I'm rarely bothered by anything
that
happens on the air. I do have a VFO ya know... IE: tuning knob for all
you without an EE... But like I say, I'm pretty bored lately, I don't
get
on the air near as much as I used to. The boredom has nothing to
do with the people on the air. It's from farting with the same basic
stuff
since I was in jr hi school... I don't get much thrill anymore.. Only
about
3 clicks above talking on a telephone. Which I hate btw... Ham radio
at the house is too easy. No challenge anymore.. I turn it on, and yak.

Wow...
If it wasn't for mobile/portable operating I would be about radio dead.
At least there is still some challenge in that area... IE: trying to
put out
a decent signal with shrimpy antennas, low power, etc..
Yea, I've tried all the digi crap too, before I get 90 people telling
me to
get with the modern techniques....PSK31, SSTV, etc, etc, ad nausium..
I'll do it for two weeks, and then the boredom sets in... I kinda got
into
SSTV, but PSK31 bores me to tears... Did I say I generally hate to
type...

>And does it seem like it's going that direction?

I see no difference from what it's been the last 20 years or so, except
there
are far fewer CW ops on the air lately. I tuned 40m CW the other night,
and
didn't hear a single QSO... And I'm talking the lower CW section, not
the
novice band.. But do I whine? Nope...Times is a changing, and there is
not much I can do about it. The argument that CW weeds all non hackers
is total BS... All it weeds out are the CW lazy, not the troublemakers.
A dedicated troublemaker will pass any tests needed if that's what it
takes to stir it. You should have heard 75m in the early -mid 80's...

All had to pass code tests in that period. 75m is actually cleaner
now,
than it was then. Mainly due to Hollingsworth cracking his whip a few
years ago.
MK

2211. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 12:16:18 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1147263378.573650.192850@j73g2000cwa.googlegroups.com>
Source record: 59853
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Mike Speed wrote:
> > What's the purpose of ham radio, To have fun talking about rigs and
> > weather, or to be able to communicate?
> >
> > To be able to communicate when no one else can communicate and to advance
> > radio knowledge & theory?
> >
> > What does part 97 say about this? Why does the ARRL ignore it?
> >
> > When CW is lost, new hams will be just like CB'ers and SWL's, or some
> > other lower life form of radio hobbiest. You name it.
>
> You stupid Fucks - don't you kow a troll when you see one! Jesus
> Christ!

Even more amazing is that no matter who starts the thread about CW, the
same group of people will post the same tired old reasons about why CW
is still a useful screening tool for prospective hams and how CW is
still an important way to communicate. And they do not want to hear
about the world as it really is in the 21st century.

2212. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 12:33:29 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <8fqdnWG60rIGQPzZnZ2dnUVZ_vednZ2d@comcast.com>
Source record: 59854
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

<nm5k@wt.net> wrote in message
news:1147261743.150515.119910@i39g2000cwa.googlegroups.com...
> >What is one behavior on our ham bands that might or could make you loose
>>interest in ham radio and leave if you heard it or if it became previlent?
>
> None. I have fairly thick skin, and I'm rarely bothered by anything
> that
> happens on the air. I do have a VFO ya know... IE: tuning knob for all
> you without an EE... But like I say, I'm pretty bored lately, I don't
> get
> on the air near as much as I used to.

Pretty much the same here too.

> The boredom has nothing to
> do with the people on the air. It's from farting with the same basic
> stuff
> since I was in jr hi school... I don't get much thrill anymore.. Only
> about
> 3 clicks above talking on a telephone. Which I hate btw... Ham radio
> at the house is too easy. No challenge anymore.. I turn it on, and yak.

If I had the time at the house, I would have invested more time and $$$ in
the shack that what I did in my service truck.

> Wow...
> If it wasn't for mobile/portable operating I would be about radio dead.

For the most part, I am only able to get on the air mobile from mid march
until after the first frost. I am a heating and a/c contractor in south
Mississippi....8am - 9pm work days, 5+ days a week doesn't leave much time
for anything else.

> At least there is still some challenge in that area... IE: trying to
> put out
> a decent signal with shrimpy antennas, low power, etc..

Not too much of a problem with enough money.... When I am on the road
between calls, if I want to talk, I am going to talk, even though most of
the time I am listening. Like I said earlier... I have more invested in the
mobile station in my service truck than I have in the shack.

> Yea, I've tried all the digi crap too, before I get 90 people telling
> me to

> get with the modern techniques....PSK31, SSTV, etc, etc, ad nausium..
> I'll do it for two weeks, and then the boredom sets in... I kinda got
> into
> SSTV, but PSK31 bores me to tears... Did I say I generally hate to
> type...

I spend too much time on the 'puter already, and FWIW, I was on packet in
'84 with a C-64, and a homebrew modem, and customized my own software for
it.

>>And does it seem like it's going that direction?
>
> I see no difference from what it's been the last 20 years or so, except
> there
> are far fewer CW ops on the air lately. I tuned 40m CW the other night,
> and
> didn't hear a single QSO... And I'm talking the lower CW section, not
> the
> novice band.. But do I whine? Nope...Times is a changing, and there is
> not much I can do about it. The argument that CW weeds all non hackers
> is total BS... All it weeds out are the CW lazy, not the troublemakers.

I concur

> A dedicated troublemaker will pass any tests needed if that's what it
> takes to stir it. You should have heard 75m in the early -mid 80's...
> All had to pass code tests in that period. 75m is actually cleaner
> now,

True again

> than it was then. Mainly due to Hollingsworth cracking his whip a few
> years ago.
> MK

I have been active recently with teaching a class for folks to get their
licenses and part of it is CW. Being here in south Mississippi and only
about 60 miles from the gulf coast, we are very aware of the communications
limitations and what works an what doesn't when the lights go out. CW is
only another weapon in our arsonal of communications tools......keep in mind
that not much works when there is *NO* infrastrucure left intact.

-n6ojn

Only 21 more shopping days till hurricane season.

2213. Re: Elimination of CW is a loss in the number of ways we cancommun...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 12:37:04 UTC
From: richardharrison@webtv.net
Message-ID: <17534-4461DE70-41@storefull-3257.bay.webtv.net>
Source record: 59855

Sal M. Onella wrote:
"I can recognize a test tape of <CR> <CR> <LF> but I can`t recognize any
of the alphabet, even at 60 WPM (45 Baud)"

Back when AT&T was the American Telephone and Telegraph Company, they
leased 30-Baud battery powered circuits suitable for manual telegraphy
or low-speed data. Biggest customers were the military and FAA.

Best regards, Richard Harrison, KB5WZI

2214. HV7CX HF mobile antenna ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 13:44:28 UTC
From: "J-P. Scherrer" <jpscherrer@infomaniak.ch>
Message-ID: <4461ee3d$1_2@news.bluewin.ch>
Source record: 59856

Hi ! Does anybody ever tried (or uses) this antenna ?

TNX in advance for any tips !

73's de F4JOC /Jean-Pierre

2215. Re: strange squelch acting.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 14:01:14 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1147269674.597228.326070@j33g2000cwa.googlegroups.com>
Source record: 59857

Boy O' boy....it's good to get a little humor about this ! I HATE TO
"not" UNDERSTAND a problem like this. The New England Spectrum
Management Group has their problems more important than mine. After
all, I DO have a "proper",outside 2m beam set up
and on that antenna there are "no issues". I need to use a VFO on 2m's
to see how wide of a signal I'm recieving. Maybe my RF-
current meter or the MFJ analyzer can aid me on my "indoor fox hunt".

chow.....paladin

2216. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 14:03:43 UTC
From: jimbo <jimbo62@spamex.com>
Message-ID: <T9KdnSWZtrQgb_zZRVn-pw@comcast.com>
Source record: 59858

mcalhoun@ksu.edu wrote:
> << I once made a J-pole from 300-ohm twinlead and tweaked it until it worked
> << OK while hanging from the ceiling, but when I moved it over next to a
> << wood-framed picture window (hung it from the window casing), the SWR went
> << to pot. Did I do something wrong?
>
> <What kind of metal was behind the window frame?
>
> The house was old enuf that I'm sure it was made of wood, and
> since it was a PICTURE window, there were no sash weights, either.
>
> So the question remains: are J-poles sensitive to nearby materials?
>

My limited experience with three J-Poles indicates that they are very sensitive to nearby materials. I tried tuning in my shop which is fairly cluttered and in the basement of a stucco finished townhouse. I used thin rope to hang the J-Poles from an overhead floor joist. Changing the location by only several inches changed the SWR. I found a spot about four feet from the nearest object which gave the lowest SWR. A ladder line J-pole was still very difficult to tune and it changed significantly when it was moved to the attic. A copper J-Pole was easier to tune but it also changed when it was moved to the attic. The Arrow end fed was "store bought" so I didn't make any adjustments in the basement. It had a reasonable SWR in the basement and it didn't change when it was moved to the attic.

I did some more tuning of the copper J-Pole on my deck. SWR changed with location, even though the deck is fairly open. The best SWR was with the J-Pole in a 5 gallon pickle crock sitting near the center of the deck.

jimbo

2217. Re: strange squelch acting.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 14:07:34 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1147270054.009561.144550@u72g2000cwu.googlegroups.com>
Source record: 59859

David.....Thank you for your "leads". I will follow them,one by one to understand "WHY" this is happening. OF ALL the frequencies, why did it have to be "this one"???? Any other,I could live with it...no problem. I should "shelf" this issue because
I do have more radio thinmgs to take care of; HF in the car for the first time.....raising my 80m loop up another 15ft. from 25ft. high, FIELD DAY right down the road....! These little issues really get under a ham's skin ;-)

Need a little persistance here...Thanks for the input,
Paladin/ma.

2218. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 14:57:30 UTC
From: Wayne <mygarbagecan@verizon.net>
Message-ID: <ubn8g.8765$k%2.4642@trnddc03>
Source record: 59860
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Mike Speed" <mike8s2@yahoo.com> wrote in message
news:1147256694.983492.263500@e56g2000cwe.googlegroups.com...
>
>> What's the purpose of ham radio, To have fun talking about rigs and
>> weather, or to be able to communicate?
>>
>> To be able to communicate when no one else can communicate and to advance
>> radio knowledge & theory?
>>
>> What does part 97 say about this? Why does the ARRL ignore it?
>>
>> When CW is lost, new hams will be just like CB'ers and SWL's, or some
>> other lower life form of radio hobbiest. You name it.
>
> You stupid Fucks - don't you kow a troll when you see one! Jesus
> Christ!
>
Troll, or no troll.....it is not unreasonable to expect those of all ages to
read this newsgroup. Accordingly, my expectation of this group is to limit
the language in your posts to the type of language you would use on the air.
--Wayne
W5GIE

2219. Re: Elimination of CW is a loss in the number of ways we can communicate

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 15:38:04 UTC
From: mzenier@eskimo.com
Message-ID: <e3vl4mpdn1@eskinews.eskimo.com>
Source record: 59705
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

In article <F948g.70137$F_3.11799@newssvr29.news.prodigy.net>,
Cecil Moore <mycall@hotmail.com> wrote:
>GregS wrote:
>> Did anybody learn RTTY ?
>
>Now there's a real challenge. What baud rate would be required
>for a human being to copy RTTY by ear?

For isolated characters, a good ear could probably differentiate them
with 22 millisecond and 20 millisecond bit times (45.5? and 50 Baud).
I had a friend who said his uncle could do that.

But if the characters ran together, especially with a 1 or 2 bit stop
time, your brain would have no way to seperate them. Neither can some
simple hardware decoders.

Mark Zenier mzenier@eskimo.com
Googleproofaddress(account:mzenier provider:eskimo domain:com)

2220. Re: balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 16:15:37 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1147277737.679511.166140@u72g2000cwu.googlegroups.com>
Source record: 59861
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 9 May 2006 17:58:39 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:
>
> >
> >jawod wrote:
> >> Signal Chaser wrote:
> >> > "an old friend" <kb9rqz@hotmail.com> wrote in
> >> > news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:
> >> >
> >
> >
> >> >
> >> > SC
> >> what bullshit
> >>
> >> Isn't EVERYONE tired of this thread by now?
> >not the gay bashers they never gettired
>
> How do you balme a poster? Is that some sort of sick fag voodoo?

you don't know my god you aredumber than I thought

2221. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 16:39:41 UTC
From: an old freind <kb9rqz_ars@yahoo.com>
Message-ID: <1147279181.692670.292110@v46g2000cwv.googlegroups.com>
Source record: 59862
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Wayne wrote:
> "Mike Speed" <mike8s2@yahoo.com> wrote in message
> news:1147256694.983492.263500@e56g2000cwe.googlegroups.com...
> >

> > You stupid Fucks - don't you kow a troll when you see one! Jesus
> > Christ!
> >
> Troll, or no troll.....it is not unreasonable to expect those of all ages to
> read this newsgroup. Accordingly, my expectation of this group is to limit
> the language in your posts to the type of language you would use on the air.

thenyou are foolish

this is not on the air and indeed you can see worse on comercail tv

grow up
> --Wayne
> W5GIE

2222. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 16:54:23 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147280063.368975.39020@v46g2000cwv.googlegroups.com>
Source record: 59863
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring wrote:
> hot-ham-and-cheese@hotmail.com wrote:

>
> Let's get a grip on reality here folks.
you got that right

few of these poster are even within dx contact of reality
>
> tom
> K0TAR

2223. Re: New thread, LMR400 resistance in a loop

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 16:57:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <is04629n40igt1g7bv6705jiju2putia1d@4ax.com>
Source record: 59864

On Wed, 10 May 2006 09:05:54 GMT, Dave Oldridge
<doldridg@leavethisoutshaw.ca> wrote:

>what the resistance per foot is of the shield on LMR400 at 3.75mhz?

Hi Dave,

With the aid of an Ohmmeter, you should be able to determine that
without need for theory or books. Unless, that is, you simply try to
determine it for one foot's length where the resistance is bound to be
so small as to be buried in the resolution of the meter's display.

If we were to simply assign a total resistance of 0.1 Ohm, then from
what follows you would find yourself in serious trouble. You should
be shooting for at least one tenth of that value IN TOTAL. The
practical reality of this is that your connections may have more
resistance than the bulk cable. Further, at this level of resistance,
you need to make four lead (Kelvin) measurements.

>I made a 55-inch diameter loop out of the stuff,

More to the matter would be the radiation resistance of this in the
80M band where you use it. This sets up the necessity of knowing that
LMR's resistance (much less the TOTAL). The radiation resistance of
such a small loop runs 0.002 Ohms.

If you used the same size loop at 160M, that figures out to 112 ï¿½Ohms.
However, you use something smaller, and thus that figure is following
down further, faster.

>I may try something more ambitious in 3/4 inch soft-drawn copper pipe,
>about 6 feet in diameter. That should get me another 3 or 4 db, I think.

Then you would find that radiation resistance now turns out to roughly
double the former values.

>Still, these coax loops seem to be working amazingly well for something so
>simple and relatively inexpensive.

This observation (not really explained by you as to what constitutes
"amazingly well") can be a product of two realities:
1. You don't actually need much power to communicate;
2. Tuning up has been leveraged by a lot of loss.

73's
Richard Clark, KB7QHC

2224. Re: New thread, LMR400 resistance in a loop

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 17:34:13 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1147282453.462947.145900@i39g2000cwa.googlegroups.com>
Source record: 59865

LMR400 outer conductor should be a bit less than 10 milliohms per foot
at 4MHz.

Rule of thumb: for copper, assuming thickness at least a couple of
skin depths, RF resistance in ohms per thousand feet is about
sqrt(freq(MHz))/(diameter(inches)). Aluminum will run 25% more or so.
I've assumed the aluminum foil shield of the LMR400 is at least 3 mils
thick, and I've neglected the overbraid.

Cheers,
Tom

2225. Double Windoms

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 18:20:16 UTC
From: Darrell Bellerive <va7to@rac.ca>
Message-ID: <1147285216.336206.77370@g10g2000cwb.googlegroups.com>
Source record: 59866

I would like to hear about experiences and comments on double windom antennas.

So far there are three designs that I have found reference to:
A Double Windom Antenna for Eight Bands by Hubert Scholle, DJ7SH, and Rolf Steins, DL1BBC, cq-DL September 1983.
A Double Windom Antenna for Nine Bands by Hubert Scholle DJ7SH, cq-DL July 1984.
The Off-Centre-Fed Dipole Revisited: A Broadband Multiband Antenna. by John Belrose, VE2CV, and Peter Bouliane, VE3KLO. QST August 1990.

The Belrose and Bouliane article includes a translation of the two cq-DL references above and is available to ARRL members at http://www.arrl.org/members-only/tis/info/pdf/9008028.pdf.

Are there any other published designs or articles?

Belrose and Bouliane advocate the use of balanced feed line constructed from dual parallel RG-62A or RG-63 coaxial cable. What is the advantage of using the coaxial cable instead of 300 ohm twin lead or 300 ohm ladder line?

Darrell Bellerive
VA7TO

2226. Re: balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 19:50:08 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147290608.422762.49480@y43g2000cwc.googlegroups.com>
Source record: 59867
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 10 May 2006 09:15:37 -0700, "an old freind"
> <kb9rqz_ars@hotmail.com> wrote:
>
> >

> >> How do you balme a poster? Is that some sort of sick fag voodoo?
> >
> >you don't know my god you aredumber than I thought
>
> If I am aredumber then please tell me what that means in
> cock-in-the-mouth-speak. I don't understand the voodoo fag language
> that you are using.

like i said you aredumber than I thought

2227. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 20:28:13 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e3tict$1m4c$1@f04n12.cac.psu.edu>
Source record: 59868

```
Bill Turner wrote:
> ORIGINAL MESSAGE:
>
> On Tue, 09 May 2006 09:20:33 -0400, Michael Coslo <mjc5@psu.edu>
> wrote:
>
>> do not have much of an argument when they complain about a person
>> referring to S-units as "pounds".......
>>
>
> ********** REPLY SEPARATOR **********
>
> Couldn't agree more. Everybody knows S-units are metric. :-)

Snort!

- 73 de Mike KB3EIA - ;^)
```

2228. Single Element Antenna Performance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 21:07:59 UTC
From: Bobby <originalbobjones@aim.com>
Message-ID: <1147295279.139842.67000@q12g2000cwa.googlegroups.com>
Source record: 59869

All,

If you were given a phased array of 30 elements, which provided a formed beam of 3.1dB/K, and you were required to determine the dB/K of a single element from that 30, how would you do it? Would it be 3.1-10*LOG10(30)?

Also, would the net combiner gain, including beamforming losses, plus the single element dB/K be equal to the 3.1dB/K?

Thanks in advance.

Bobby.

2229. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 21:46:38 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e3tmvv$s36$1@avnika.corp.mot.com>
Source record: 59870

"Jon Kåre Hellan" <dev@null.com> wrote in message
news:1mfyjjcsii.fsf@persaunet.uninett.no...
> "Steve N." <stuevue.nouskuowuicuz@moutouroula.com> writes:
>
> > OOPS! Jon,
> > IF it is "end-fed" is isn't a "di-pole". It is just a half wave. I
> > guess it is technically a monopole.
>
> Sort of, sort of. The feed point is actually in the middle of the half
> wave. Traditionally, it's called coaxial sleeve antenna.

OK, perhaps I missed the full reference. I read "end fed dipole" and
went from that. The sleeve dipole is still a dipole (I have one for 2M) and
is still center fed. The lower half (lower, hollow, quarter wave with the
t-line passing through it) is viewed as a "choke" by some as well. You can
do some mental games with your models and take the sleve and spread it out
into a cone, then a plane and say that the sleeve dipole is sort of a
configuration of a 1/4 wave ground plane of a different color. Various
analogies are possible depending on your particular way of understanding the
basics. This is what I call "mental models".

That Microwave article is showing different concepts, but along the same
line of the "non-sleve" antenna. you can take a coax, strip off 1/4 wave of
outer to leave 1/4 wave on inner projecting out the end, then do various
things with gaps in the the shield (whthout adding a classical sleeve) and
get radiation and minimize coax radiation (except were you want it, or
perhaps more correctly, where it helps it to be a better antenna (for
whatever charasteristic you want in the first place).).

Rolf Brevig's choke is something I don't think I've seen before, but I
understand the concept. I can't tell, but I suspect it is common "1/4 wave
stub", no?

73, Steve, K9DCI

Except
> originally, the sleeve was outside the coax braid. In this variation,
> due to LA1IC Rolf Brevig, the sleeve is the outside of the coax, and
> the end of the sleeve is a choke. He's written about it in English in
> CQ, 1999, Aug pg 22. The version in Norwegian is on the web at
> http://www.la2t.org/teknikk/vertikal2m.html.
>
> I found an article from Microwave Journal about a very similar
> concept: http://www.ansoft.com/news/articles/04.05_MWJ.pdf. They use
> different kinds of choke, since they're at much higher
> frequencies. They report performance very similar to a dipole.

>
> 73 de LA4RT Jon

2230. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 21:49:08 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e3tn4l$s3b$1@avnika.corp.mot.com>
Source record: 59871

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e3tmvv$s36$1@avnika.corp.mot.com...
>
> "Jon Kåre Hellan" <dev@null.com> wrote in message
> news:1mfyjjcsii.fsf@persaunet.uninett.no...
> > "Steve N." <stuevue.nouskuowuicuz@moutouroula.com> writes:
> >
> > > OOPS! Jon,
> > > IF it is "end-fed" is isn't a "di-pole". It is just a half wave.
I
> > > guess it is technically a monopole.
> >
> > Sort of, sort of. The feed point is actually in the middle of the half
> > wave. Traditionally, it's called coaxial sleeve antenna.
>
> OK, perhaps I missed the full reference. I read "end fed dipole" and
> went from that. The sleeve dipole is still a dipole (I have one for 2M)
and
> is still center fed. The lower half (lower, hollow, quarter wave with
the
> t-line passing through it) is viewed as a "choke" by some as well. You
can
> do some mental games with your models and take the sleve and spread it out
> into a cone, then a plane and say that the sleeve dipole is sort of a
> configuration of a 1/4 wave ground plane of a different color. Various
> analogies are possible depending on your particular way of understanding
the
> basics. This is what I call "mental models".
>
> That Microwave article is showing different concepts, but along the same
> line of the "non-sleve" antenna. you can take a coax, strip off 1/4 wave
of
> outer to leave 1/4 wave on inner projecting out the end, then do various
> things with gaps in the the shield (whthout adding a classical sleeve) and
> get radiation and minimize coax radiation (except were you want it, or
> perhaps more correctly, where it helps it to be a better antenna (for
> whatever charasteristic you want in the first place).).
>
> Rolf Brevig's choke is something I don't think I've seen before, but I
> understand the concept. I can't tell, but I suspect it is common "1/4
wave
> stub", no?
>
> 73, Steve, K9DCI

Jon,
I also just realized that the choke is very similar to the Microwave article's concept of simply opening the shield. I think that was your point.
73, Steve, K9DCI

>
>
>
> Except
> > originally, the sleeve was outside the coax braid. In this variation,
> > due to LA1IC Rolf Brevig, the sleeve is the outside of the coax, and
> > the end of the sleeve is a choke. He's written about it in English in
> > CQ, 1999, Aug pg 22. The version in Norwegian is on the web at
> > http://www.la2t.org/teknikk/vertikal2m.html.
> >
> > I found an article from Microwave Journal about a very similar
> > concept: http://www.ansoft.com/news/articles/04.05_MWJ.pdf. They use
> > different kinds of choke, since they're at much higher
> > frequencies. They report performance very similar to a dipole.
> >
> > 73 de LA4RT Jon
>
>

2231. Re: Single Element Antenna Performance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 22:12:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <92p4625fhpv4afoef6p6oe4si6ojeap033@4ax.com>
Source record: 59872

On 10 May 2006 14:07:59 -0700, "Bobby" <originalbobjones@aim.com>
wrote:

>All,
>
>If you were given a phased array of 30 elements, which provided a
>formed beam of 3.1dB/K, and you were required to determine the dB/K of
>a single element from that 30, how would you do it? Would it be
>3.1-10*LOG10(30)?
>
>Also, would the net combiner gain, including beamforming losses, plus
>the single element dB/K be equal to the 3.1dB/K?
>
>Thanks in advance.
>
>Bobby.

Hi Bobby,

Gain is not proportioned across elements even though there is a
correlation between their count and the total gain.

dB/K is for noise temperature, not element count. Your equation
>3.1-10*LOG10(30)?
suggests a temperature of 30ï¿½ absolute, not 30 elements.

73's
Richard Clark, KB7QHC

2232. Re: cw trolling

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 22:14:39 UTC
From: Q <Q@nowhere.com>
Message-ID: <1264pefav054pa7@corp.supernews.com>
Source record: 59873
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Steve N." wrote:
>
> "RHF" <rhf-newsgroups@pacbell.net> wrote in message
> news:1147122594.900336.272650@u72g2000cwu.googlegroups.com...
> > The FCC Outlawed 'Spark' for very valid technical reasons
> > at that time and they are still valid today. The very same
> > logic could be used to still justify the continued use of CW
> > as an Amateur Operating Mode; even though the requirement
> > for proficiency in CW is not used for an Amateur License.
> >
> > jm2cw ~ RHF
>
> RHF,
> My point was ...this time the FCC is NOT *eliminating* nor *Outlawing CW.
> (as far as we know)
> Spark *did* suck, but even so there were those that hated CW.
>
> 73, Steve, K9DCI

I just passed my tech exam and am looking
forward to the CW test. It certainly exercises
a part of my brain that seems to need that
kind of excercise. I'm glad it's still a requirement.
It all seems to balance out.

73

2233. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 22:47:12 UTC
From: hot-ham-and-cheese@hotmail.com
Message-ID: <1147301232.062904.118380@i39g2000cwa.googlegroups.com>
Source record: 59874
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring wrote:
> hot-ham-and-cheese@hotmail.com wrote:
>
> > Radio Buff wrote:
> >
> >>I'm afraid we can expect more and more of this as time goes on.
> >>
> >>
> >>SC
> >
> >
> > "I got me???"
> >
> > And you complain about other Ops?
> >
> > Indeed.
> >
>
> Oh come now, it doesn't count, because he was already a ham! The other
> guy was just a CBer that managed to pass a test!
>
> -------------------------
>
> Let's get a grip on reality here folks.
>
> tom
> K0TAR

Good point. My mistake.

2234. Re: cw trolling

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 23:26:45 UTC
From: slow Code <em@il.here>
Message-ID: <VEu8g.972$x4.456@newsread3.news.pas.earthlink.net>
Source record: 59875
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Q <Q@nowhere.com> wrote in news:1264pefav054pa7@corp.supernews.com:

> "Steve N." wrote:
>>
>> "RHF" <rhf-newsgroups@pacbell.net> wrote in message
>> news:1147122594.900336.272650@u72g2000cwu.googlegroups.com...
>> > The FCC Outlawed 'Spark' for very valid technical reasons
>> > at that time and they are still valid today. The very same
>> > logic could be used to still justify the continued use of CW
>> > as an Amateur Operating Mode; even though the requirement
>> > for proficiency in CW is not used for an Amateur License.
>> >
>> > jm2cw ~ RHF
>>
>> RHF,
>> My point was ...this time the FCC is NOT *eliminating* nor *Outlawing
>> CW.
>> (as far as we know)
>> Spark *did* suck, but even so there were those that hated CW.
>>
>> 73, Steve, K9DCI
>
> I just passed my tech exam and am looking
> forward to the CW test. It certainly exercises
> a part of my brain that seems to need that
> kind of excercise. I'm glad it's still a requirement.
> It all seems to balance out.
>
> 73

Good luck to you my friend. It will be a pleasure to work you on HF.

Congrats on getting your Tech too.

sc

2235. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 23:26:48 UTC
From: Slow Code <em@il.here>
Message-ID: <YEu8g.974$x4.768@newsread3.news.pas.earthlink.net>
Source record: 59676
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

hot-ham-and-cheese@hotmail.com wrote in
news:1147136070.395019.254980@v46g2000cwv.googlegroups.com:

>
> Jim - NN7K wrote:
>
>> Showing that : Now days, this is nothing much more than a
>> Glorified Citizens Band? 10-4 good buddy! , and now on to the
>> Sspectrum Auctioneer! SOMEONE has to have a better use for it!
>> All those good numbers, see u on the flip-flop! (formerly) NN7K
>
> (formerly) NN7K, did you have a point?

Don't you mean: "Ten-Nine?"

Sc

2236. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 23:26:49 UTC
From: Radio Buff <em@il.here>
Message-ID: <ZEu8g.975$x4.732@newsread3.news.pas.earthlink.net>
Source record: 59677
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Mike Speed" <mike8s2@yahoo.com> wrote in
news:1147256694.983492.263500@e56g2000cwe.googlegroups.com:

>
>> What's the purpose of ham radio, To have fun talking about rigs and
>> weather, or to be able to communicate?
>>
>> To be able to communicate when no one else can communicate and to
>> advance radio knowledge & theory?
>>
>> What does part 97 say about this? Why does the ARRL ignore it?
>>
>> When CW is lost, new hams will be just like CB'ers and SWL's, or some
>> other lower life form of radio hobbiest. You name it.
>
> You stupid Fucks - don't you kow a troll when you see one! Jesus
> Christ!

Tnx for the reminder, I almost forgot.

As ham radio test standards have lowered over the years, I've noted a
marked increase in the amount of obscenity, profanity, and indecency.

RB

2237. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 23:26:55 UTC
From: Short Circuit <em@il.here>
Message-ID: <3Fu8g.978$x4.372@newsread3.news.pas.earthlink.net>
Source record: 59679
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in
news:1262mh57s1pubbf@corp.supernews.com:

> "Signal Chaser" <em@il.here> wrote in message
> news:1w88g.2089$u4.1888@newsread1.news.pas.earthlink.net...
>> "an old friend" <kb9rqz@hotmail.com> wrote in
>> news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:
>>
>>>
>>> Sinpo Code wrote:
>>>> Lancer <lancer@rock.com> wrote in
>>>> news:08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com:
>>>>
>>>
>>>>
>>>> I don't remember who was all in it, but one guy kept dropping the
>>>> soldering iron on the ground in front of people, then he'd bend over
>>>> slowly to pick it up again like he was hoping someone might give him
>>>> a poke. Disgusting.
>>>>
>>> how is any that the ARRL's fault
>>
>>
>> ARRL threw principle out the window when they caved in to the demands
>> of the Lambda Amateur Radio Club (LARC). It was a sad day for me
>> indeed when I opened my beloved QST magazine and there on the pages
>> were photos of queers on a Tropical DXpedition, and in living color no
>> less. The ARRL wanted us to embrace a sick perverted lifestyle and be
>> one big happy family. To me, it was the spark that signaled the death
>> of a once proud organization, and it turned liberal.
>>
>>
>> SC
>
> What I don't get is why we are forced to see
> homosexuality in areas that have nothing to do with sex, such as the
> example you mentioned.

Radical militant homosexuality coupled with uncontroled liberalism.

sc

2238. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 23:26:56 UTC
From: Radio Buff <no.em@il.box>
Message-ID: <4Fu8g.979$x4.338@newsread3.news.pas.earthlink.net>
Source record: 59678
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Cecil Moore <mycall@hotmail.com> wrote in
news:M998g.84789$dW3.76743@newssvr21.news.prodigy.com:

> Radio Buff wrote:
>> It must be human nature, when you get something for nothing, you don't
>> appreciate it as much, or try to take care of it the same as something
>> you had to work for. That's why dumbing down ham tests is bad. Having
>> a license doesn't mean anything.
>
> If we made getting a driver's license more difficult, would
> people appreciate it more?

Easier EE exams will produce better engineers?

SC

2239. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-10 23:26:58 UTC
From: Kristal Klear <kk@klear.mail>
Message-ID: <6Fu8g.980$x4.725@newsread3.news.pas.earthlink.net>
Source record: 59680
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

hot-ham-and-cheese@hotmail.com wrote in
news:1147301232.062904.118380@i39g2000cwa.googlegroups.com:

>
> Tom Ring wrote:
>> hot-ham-and-cheese@hotmail.com wrote:
>>
>> > Radio Buff wrote:
>> >
>> >>I'm afraid we can expect more and more of this as time goes on.
>> >>
>> >>
>> >>SC
>> >
>> >
>> > "I got me???"
>> >
>> > And you complain about other Ops?
>> >
>> > Indeed.
>> >
>>
>> Oh come now, it doesn't count, because he was already a ham! The other
>> guy was just a CBer that managed to pass a test!
>>
>> --------------------------
>>
>> Let's get a grip on reality here folks.
>>
>> tom
>> K0TAR
>
> Good point. My mistake.

Welcome to reality.

SC

2240. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 00:10:00 UTC
From: "Galen, W8LNA" <w8lna@arrl.net>
Message-ID: <shv8g.488$oa1.132@news02.roc.ny>
Source record: 59681
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Radio Buff wrote:
>
> As ham radio test standards have lowered over the years, I've noted a
> marked increase in the amount of obscenity, profanity, and indecency.
>
> RB

At the same time the price of gasoline has gone up, the minimum wage has gone up, the stock market has gone up but in just about all areas of society mutual respect and courtesy have gone down.

I think it has very little if anything at all to do with Morse code.

W8LNA

2241. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 00:32:53 UTC
From: hot-ham-and-cheese@hotmail.com
Message-ID: <1147307573.511778.72450@j33g2000cwa.googlegroups.com>
Source record: 59682
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Slow Code wrote:
> hot-ham-and-cheese@hotmail.com wrote in
> news:1147136070.395019.254980@v46g2000cwv.googlegroups.com:
>
> >
> > Jim - NN7K wrote:
> >
> >> Showing that : Now days, this is nothing much more than a
> >> Glorified Citizens Band? 10-4 good buddy! , and now on to the
> >> Sspectrum Auctioneer! SOMEONE has to have a better use for it!
> >> All those good numbers, see u on the flip-flop! (formerly) NN7K
> >
> > (formerly) NN7K, did you have a point?
>
>
> Don't you mean: "Ten-Nine?"
>
> Sc

Ten-hup?
```

2242. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 00:50:28 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <oTv8g.3672$fb2.2188@newssvr27.news.prodigy.net>
Source record: 59683
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Galen, W8LNA" <w8lna@arrl.net> wrote in message
news:shv8g.488$oa1.132@news02.roc.ny...
> Radio Buff wrote:
>>
>> As ham radio test standards have lowered over the years, I've noted a
>> marked increase in the amount of obscenity, profanity, and indecency. RB
>
> At the same time the price of gasoline has gone up, the minimum wage has
> gone up, the stock market has gone up but in just about all areas of
> society mutual respect and courtesy have gone down.
>
> I think it has very little if anything at all to do with Morse code.
>
> W8LNA

When I was born (1-10-33) there were approximately 130,000,000 Americans. I think we are approaching 300,000,000 now. I'm still relatively polite, I think that may be why I get so many funny looks when I speak to folks. Poor as we were, I think I liked the 30s and early 40s a whole lot better. Main thing I've noticed about the more recent citizens Is that there have never been so many with such high self esteem and so little reason for it. (G) I'm a relatively recently licensed Ham (Tech-2002, Gen'l-2005) Had no real interest in CW but realized I had to pass the test to advance beyond the no-code Tech level (Besides, I figgered actually having passed even the elementary 5 WPM CW test would eventually be a prideful thing.)

Harold
KD5SAK

2243. Re: strange squelch acting.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 00:51:31 UTC
From: dplatt@radagast.org
Message-ID: <12652kjaqqu1id7@corp.supernews.com>
Source record: 59684

In article <1147270054.009561.144550@u72g2000cwu.googlegroups.com>,
Paladin <kb1ghh@hotmail.com> wrote:

>David.....Thank you for your "leads". I will follow them,one by
>one to understand "WHY" this is happening. OF ALL the frequencies, why
>did it have to be "this one"???? Any other,I could live with it...no
>problem.

I suspect it's probably a derivative of Murphy's Law ;-)

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2244. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 01:05:16 UTC
From: Brenda Ann <brendad@shinbiro.com>
Message-ID: <e3u2if$1j2$1@news2.kornet.net>
Source record: 59685
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"kd5sak" <kd5sak@sbcglobal.net> wrote in message
news:oTv8g.3672$fb2.2188@newssvr27.news.prodigy.net...
>
> "Galen, W8LNA" <w8lna@arrl.net> wrote in message
> news:shv8g.488$oa1.132@news02.roc.ny...
>> Radio Buff wrote:
>>>
>>> As ham radio test standards have lowered over the years, I've noted a
>>> marked increase in the amount of obscenity, profanity, and indecency.
>>> RB
>>
>> At the same time the price of gasoline has gone up, the minimum wage has
>> gone up, the stock market has gone up but in just about all areas of
>> society mutual respect and courtesy have gone down.
>>
>> I think it has very little if anything at all to do with Morse code.
>>
>> W8LNA
>
> When I was born (1-10-33) there were approximately 130,000,000 Americans.
> I think we are approaching 300,000,000 now. I'm still relatively polite, I
> think that may be why I get so many funny looks when I speak
> to folks. Poor as we were, I think I liked the 30s and early 40s a whole
> lot better. Main thing I've noticed about the more recent citizens Is that
> there have never been so many with such high self esteem and so little
> reason
> for it. (G) I'm a relatively recently licensed Ham (Tech-2002, Gen'l-2005)
> Had no real interest in CW but realized I had to pass the test to advance
> beyond the no-code Tech level (Besides, I figgered actually having passed
> even the elementary 5 WPM CW test would eventually be a prideful thing.)
>
> Harold
> KD5SAK

I'm a couple decades younger than you (my mother was born in '33), but I
have sure seen a massive change in societal attitudes since I was young.
Used to be that people understood the concept of earning what they get out
of life, now everyone seems to think they're entitled to anything they want
for free. Kind of sad, really.
```

2245. Re: cw trolling

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 01:20:17 UTC
From: CW <s@earthlink.net>
Message-ID: <ljw8g.1087$y4.662@newsread2.news.pas.earthlink.net>
Source record: 59686
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

You mean, if it wasn't a requirement, you couldn't do it? Who requires you
to breath?

"Q" <Q@nowhere.com> wrote in message
news:1264pefav054pa7@corp.supernews.com...

>I'm glad it's still a requirement.
>

2246. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 01:28:32 UTC
From: CW <s@earthlink.net>
Message-ID: <4rw8g.1090$y4.918@newsread2.news.pas.earthlink.net>
Source record: 59687
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

True.

"Galen, W8LNA" <w8lna@arrl.net> wrote in message
news:shv8g.488$oa1.132@news02.roc.ny...

> but in just about all areas of
> society mutual respect and courtesy have gone down.
>
> I think it has very little if anything at all to do with Morse code.
>
> W8LNA

2247. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 01:34:07 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <jww8g.3691$fb2.2393@newssvr27.news.prodigy.net>
Source record: 59688
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Brenda Ann" <brendad@shinbiro.com> wrote in message
news:e3u2if$1j2$1@news2.kornet.net...
>
> I'm a couple decades younger than you (my mother was born in '33), but I
> have sure seen a massive change in societal attitudes since I was young.
> Used to be that people understood the concept of earning what they get out
> of life, now everyone seems to think they're entitled to anything they
> want for free. Kind of sad, really.
>
>

Yessum, I agree. I always hated to work, but I always understood that it was
something I had to do.
I was a high school dropout, but after I got out of the Army I picked up two
college degrees. I never really amounted to much, but did pretty well for a
dropout, even taught Industrial Arts in a Dallas Junior High
School for eleven years. Finished my working years as a Design Drafter (CAD)
for Halliburton.

Harold
KD5SAK

2248. Re: New thread, LMR400 resistance in a loop

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 02:41:29 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97BFC84F54E47doldridgsprintca@64.59.135.159>
Source record: 59690

"K7ITM" <k7itm@msn.com> wrote in news:1147282453.462947.145900
@i39g2000cwa.googlegroups.com:

> LMR400 outer conductor should be a bit less than 10 milliohms per foot
> at 4MHz.
>
> Rule of thumb: for copper, assuming thickness at least a couple of
> skin depths, RF resistance in ohms per thousand feet is about
> sqrt(freq(MHz))/(diameter(inches)). Aluminum will run 25% more or so.
> I've assumed the aluminum foil shield of the LMR400 is at least 3 mils
> thick, and I've neglected the overbraid.

OK, thanks. That pretty much agrees with my experience.

I'm not trying to compare apples and fir trees here, just apples and oranges. The antenna I'm trying to better is a hamstick whip and this coax loop seems to beat it by about 1 or 2 db (I have them on an AB switch that gives me the tuned antennas at the touch of a button). With the whip horizontal and the loop vertical, both have NVIS performance at high angles that is quite similar, but the loop is less noisy on receive and has a tiny bit more signal strength on actual NVIS signals.

As I said, I'm encouraged enough to go ahead now and try something in copper that should have a lot less losses. If I can get efficiency up into the 10% range, then it's a real winner over a mobile whip.

The coax antenna is certainly a good little field antenna for quick deployment. Can be carried in the trunk of a car along with a radio and its feedline. And can be hung out with only string.

Sure, if I had 40 acres and lots of cash, then a four-square and a rhombic would be the way to go (Canadian hams are clumped along the border, making a rhombic practical when you're at either end).

--
Dave Oldridge+
ICQ 1800667

2249. Re: New thread, LMR400 resistance in a loop

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 03:32:26 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <g9b562hedd50vltjc7gpnmdfjv1rlpjnib@4ax.com>
Source record: 59691

On 10 May 2006 10:34:13 -0700, "K7ITM" <k7itm@msn.com> wrote:

>LMR400 outer conductor should be a bit less than 10 milliohms per foot
>at 4MHz.

So... close to 0.140 ohms loss restance for the loop conductor, and if the loop is resonated by the o/c stub which presents an impedance of around 0.14+j116, and taking Richard's estimate of Rr at 0.002, the the efficiency of the main loop (ignoring coupling loop / circuits) is about 0.002/(0.14+0.14+0.002), less than 1%, or about 21dB of loss.

It seems that the convenience of the TL loop / capacitor comes at a significance expense.

Owen

>
>Rule of thumb: for copper, assuming thickness at least a couple of
>skin depths, RF resistance in ohms per thousand feet is about
>sqrt(freq(MHz))/(diameter(inches)). Aluminum will run 25% more or so.
>I've assumed the aluminum foil shield of the LMR400 is at least 3 mils
>thick, and I've neglected the overbraid.
>
>Cheers,
>Tom
--

2250. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 03:38:48 UTC
From: "Dr.Death" <drdeath555usb@nospam.yahoo.com>
Message-ID: <1265cea4sqoqe7@corp.supernews.com>
Source record: 59692
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

```
"Short Circuit" <em@il.here> wrote in message
news:3Fu8g.978$x4.372@newsread3.news.pas.earthlink.net...
> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in
> news:1262mh57s1pubbf@corp.supernews.com:
>
>> "Signal Chaser" <em@il.here> wrote in message
>> news:1w88g.2089$u4.1888@newsread1.news.pas.earthlink.net...
>>> "an old friend" <kb9rqz@hotmail.com> wrote in
>>> news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:
>>>
>>>>
>>>> Sinpo Code wrote:
>>>>> Lancer <lancer@rock.com> wrote in
>>>>> news:08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com:
>>>>>
>>>>
>>>>>
>>>>> I don't remember who was all in it, but one guy kept dropping the
>>>>> soldering iron on the ground in front of people, then he'd bend over
>>>>> slowly to pick it up again like he was hoping someone might give him
>>>>> a poke. Disgusting.
>>>>>
>>>> how is any that the ARRL's fault
>>>
>>>
>>> ARRL threw principle out the window when they caved in to the demands
>>> of the Lambda Amateur Radio Club (LARC). It was a sad day for me
>>> indeed when I opened my beloved QST magazine and there on the pages
>>> were photos of queers on a Tropical DXpedition, and in living color no
>>> less. The ARRL wanted us to embrace a sick perverted lifestyle and be
>>> one big happy family. To me, it was the spark that signaled the death
>>> of a once proud organization, and it turned liberal.
>>>
>>>
>>> SC
>>
>> What I don't get is why we are forced to see
>> homosexuality in areas that have nothing to do with sex, such as the
>> example you mentioned.
>
>
> Radical militant homosexuality coupled with uncontroled liberalism.
```

>
> sc

What is sad is that in California they deny the Boy Scouts public park access, but it is OK for gays to have public sex in the same parks without fear of being arrested.

2251. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 03:57:04 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <kCy8g.12623$QP4.5329@fed1read12>
Source record: 59693

"Dave Platt" <dplatt@radagast.org> wrote in message
news:1262rjbni0pn39c@corp.supernews.com...

< snip >

> I haven't read any reports of actual experiments which attempted to
> quantify the tuning stability of the classic J-pole ...

< snip >

That, sir is about to change:

I wondered about the effect of mast material, so I took a freshly built
j-pole and mounted it in the clear. I noted the XMIT reflected power (low)
and moved a ten-foot piece of galvanized steel mast around the antenna, I
found I had to get within about an inch to see the reflected power increase.

Next, I found a repeater with nearly continuous chatter and connected the
j-pole through an attenuator to my radio. I set the attenuator so the
received audio was very noisy -- another dB or two and the conversation was
unreadable. That same piece of mast material had essentially the same
effect: had to get really close to louse up the antenna's performance.

That said, if I take a j-pole and walk around with it, periodically
measuring the reflected power, I will see physical locations where it bumps
up. That's probably not detuning; it's probably reflected power off a wall
or fence, which could be what's happening in the OP's attic. (Navy ship
radars' reflected power monitors will "bump up" every time the antenna
rotates past the mast or some other bit of ship's structure.)

Is this great science? No. Is it worth noting? I hope so.

2252. Re: I blame the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 03:57:28 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147319848.869325.29870@u72g2000cwu.googlegroups.com>
Source record: 59694
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Short Circuit wrote:
> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in
> news:1262mh57s1pubbf@corp.supernews.com:
>
> > "Signal Chaser" <em@il.here> wrote in message
> > news:1w88g.2089$u4.1888@newsread1.news.pas.earthlink.net...
> >> "an old friend" <kb9rqz@hotmail.com> wrote in
> >> news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:
> >>
> >>>

> >>
> >> SC
> >>
> > What I don't get is why we are forced to see
> > homosexuality in areas that have nothing to do with sex, such as the
> > example you mentioned.
>
>
> Radical militant homosexuality coupled with uncontroled liberalism.

hardly jsut arefusual to hide and an over active imagination
>
> sc

2253. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 05:12:58 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147324378.487589.127940@q12g2000cwa.googlegroups.com>
Source record: 59689
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Brenda Ann wrote:
> "kd5sak" <kd5sak@sbcglobal.net> wrote in message
> news:oTv8g.3672$fb2.2188@newssvr27.news.prodigy.net...
> >

> > KD5SAK
>
> I'm a couple decades younger than you (my mother was born in '33), but I
> have sure seen a massive change in societal attitudes since I was young.
> Used to be that people understood the concept of earning what they get out
> of life, ...
used to be that sorta worked today hard work does not equal reward
rarely do the books balance, I have never been paid what I was worth
(soeties thnakfully I have been way more than I was worth I tried to
discourage people from trowing me work i did not like by charging more
for it, they paid it)
>.....now everyone seems to think they're entitled to anything they want
> for free. Kind of sad, really.

nobody is asking for free access to HF, I am not I am asking that
requireents for such acces be reasonable, with the decliene in the use
and import of CW over the years the CW test is not a reasonable
requirement, the same cane be said of othe rpeices of the written test
(like anybody realy needs to know whatfrequency is balck in a fastscan
signal (a UHF mode) in order to use HF spectrum is truly beyond me but
it does not rsie to the pass fail nature of the CW test

2254. electromagnetic compatibility trainings/workshops

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 06:45:19 UTC
From: electro <electromagnetic377@yahoo.com>
Message-ID: <1147329919.236111.251560@q12g2000cwa.googlegroups.com>
Source record: 59695

anyone who knows of a company that accepts emc training in design and
test measurement in their lab houses?

2255. Re: question: NEC2 w/ ground parms.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 07:43:37 UTC
From: Arie <4nec2@gmx.net>
Message-ID: <1147333417.610903.220470@q12g2000cwa.googlegroups.com>
Source record: 59696

rjtucke wrote:

> Per emailed request, here is my deck:

etc...

Took a short look at your data. Did not have any (GN) difficulties running it. (btw the negative GN value is used when running the model using a freq-loop/sweep). However it showed up you model is largely unreliable due to the large segment length differences at the end of you 'dipole'. When running an average-gain test you will also notice a value of 0.35, indicating a largely unreliable model.

Arie.

2256. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 11:05:40 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44631A84.9030802@fuse.net>
Source record: 59697
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

```
Short Circuit wrote:
> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in
> news:1262mh57s1pubbf@corp.supernews.com:
>
>
>>"Signal Chaser" <em@il.here> wrote in message
>>news:1w88g.2089$u4.1888@newsread1.news.pas.earthlink.net...
>>
>>>"an old friend" <kb9rqz@hotmail.com> wrote in
>>>news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:
>>>
>>>
>>>>Sinpo Code wrote:
>>>>
>>>>>Lancer <lancer@rock.com> wrote in
>>>>>news:08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com:
>>>>>
>>>>
>>>>>I don't remember who was all in it, but one guy kept dropping the
>>>>>soldering iron on the ground in front of people, then he'd bend over
>>>>>slowly to pick it up again like he was hoping someone might give him
>>>>>a poke. Disgusting.
>>>>>
>>>>
>>>>how is any that the ARRL's fault
>>>
>>>
>>>ARRL threw principle out the window when they caved in to the demands
>>>of the Lambda Amateur Radio Club (LARC). It was a sad day for me
>>>indeed when I opened my beloved QST magazine and there on the pages
>>>were photos of queers on a Tropical DXpedition, and in living color no
>>>less. The ARRL wanted us to embrace a sick perverted lifestyle and be
>>>one big happy family. To me, it was the spark that signaled the death
>>>of a once proud organization, and it turned liberal.
>>>
>>>
>>>SC
>>
>>What I don't get is why we are forced to see
>>homosexuality in areas that have nothing to do with sex, such as the
>>example you mentioned.
>
```

>
>
> Radical militant homosexuality coupled with uncontroled liberalism.
>
> sc
It's enough to make a Nazi cry

2257. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 11:10:36 UTC
From: jawod <jawod@fuse.net>
Message-ID: <671c8$44631bd7$453d9423$7173@FUSE.NET>
Source record: 59698
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Dr.Death wrote:
> "Short Circuit" <em@il.here> wrote in message
> news:3Fu8g.978$x4.372@newsread3.news.pas.earthlink.net...
>
>>"Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in
>>news:1262mh57s1pubbf@corp.supernews.com:
>>
>>
>>>"Signal Chaser" <em@il.here> wrote in message
>>>news:1w88g.2089$u4.1888@newsread1.news.pas.earthlink.net...
>>>
>>>>"an old friend" <kb9rqz@hotmail.com> wrote in
>>>>news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:
>>>>
>>>>
>>>>>Sinpo Code wrote:
>>>>>
>>>>>>Lancer <lancer@rock.com> wrote in
>>>>>>news:08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com:
>>>>>>
>>>>>
>>>>>>I don't remember who was all in it, but one guy kept dropping the
>>>>>>soldering iron on the ground in front of people, then he'd bend over
>>>>>>slowly to pick it up again like he was hoping someone might give him
>>>>>>a poke. Disgusting.
>>>>>>
>>>>>
>>>>>how is any that the ARRL's fault
>>>>
>>>>
>>>>ARRL threw principle out the window when they caved in to the demands
>>>>of the Lambda Amateur Radio Club (LARC). It was a sad day for me
>>>>indeed when I opened my beloved QST magazine and there on the pages
>>>>were photos of queers on a Tropical DXpedition, and in living color no
>>>>less. The ARRL wanted us to embrace a sick perverted lifestyle and be
>>>>one big happy family. To me, it was the spark that signaled the death
>>>>of a once proud organization, and it turned liberal.
>>>>
>>>>
>>>>SC
>>>
>>>What I don't get is why we are forced to see

>>>homosexuality in areas that have nothing to do with sex, such as the
>>>example you mentioned.
>>
>>
>>Radical militant homosexuality coupled with uncontroled liberalism.
>>
>>sc
>
>
> What is sad is that in California they deny the Boy Scouts public park
> access, but it is OK for gays to have public sex in the same parks without
> fear of being arrested.
>
>
I hear tell that, in Massachusetts, they let CATHOLICS vote!

2258. Re: cw trolling

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 12:23:19 UTC
From: Q <Q@nowhere.com>
Message-ID: <1266b5n4lup0ob6@corp.supernews.com>
Source record: 59699
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
slow Code wrote:
>
> Q <Q@nowhere.com> wrote in news:1264pefav054pa7@corp.supernews.com:
>
> > "Steve N." wrote:
> >>
> >> "RHF" <rhf-newsgroups@pacbell.net> wrote in message
> >> news:1147122594.900336.272650@u72g2000cwu.googlegroups.com...
> >> > The FCC Outlawed 'Spark' for very valid technical reasons
> >> > at that time and they are still valid today. The very same
> >> > logic could be used to still justify the continued use of CW
> >> > as an Amateur Operating Mode; even though the requirement
> >> > for proficiency in CW is not used for an Amateur License.
> >> >
> >> > jm2cw ~ RHF
> >>
> >> RHF,
> >> My point was ...this time the FCC is NOT *eliminating* nor *Outlawing
> >> CW.
> >> (as far as we know)
> >> Spark *did* suck, but even so there were those that hated CW.
> >>
> >> 73, Steve, K9DCI
> >
> > I just passed my tech exam and am looking
> > forward to the CW test. It certainly exercises
> > a part of my brain that seems to need that
> > kind of excercise. I'm glad it's still a requirement.
> > It all seems to balance out.
> >
> > 73
>
> Good luck to you my friend. It will be a pleasure to work you on HF.
>
> Congrats on getting your Tech too.
>

Thanks.

I'm trying out the shareware program "nucode"
right now. Is this a recommeded way to learn CW?
```

My long term plan is also to pass the General exam,
then build my own HF CW receiver, and then later
try transmitting low power to see how far I can
go on an empty tank.

2259. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 12:53:57 UTC
From: Jon Kåre Hellan <dev@null.com>
Message-ID: <1m7j4sd8nu.fsf@persaunet.uninett.no>
Source record: 59700

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> writes:

> "Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
> news:e3tmvv$s36$1@avnika.corp.mot.com...
> >
> > Rolf Brevig's choke is something I don't think I've seen before, but I
> > understand the concept. I can't tell, but I suspect it is common "1/4
> wave
> > stub", no?

A 1/4 wave stub would work better, but be less simple to
fabricate. This design is trivial. It's just a coiled length of coax.

> I also just realized that the choke is very similar to the Microwave
> article's concept of simply opening the shield. I think that was your
> point.

That was my point. But I now see that we're putting it at a high
impedence point, so the isolation is going to be far from perfect.

Anyway, my *real* point was that this was a useful antenna. Carry one
rolled up in your pocket and hang it from a tree to extend the range
of your HT. Cut one for 156.8 MHz and keep on your sailboat in case
you're dismasted. Etc.

73
LA4RT Jon

2260. Re: question: NEC2 w/ ground parms.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 13:39:41 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <x8H8g.6217$zn1.5161@clgrps13>
Source record: 59701

"Arie" <4nec2@gmx.net> wrote in message
news:1147333417.610903.220470@q12g2000cwa.googlegroups.com...
>
> rjtucke wrote:
>
>> Per emailed request, here is my deck:
>
> etc...
>
> Took a short look at your data. Did not have any (GN) difficulties
> running it. (btw the negative GN value is used when running the model
> using a freq-loop/sweep). However it showed up you model is largely
> unreliable due to the large segment length differences at the end of
> you 'dipole'. When running an average-gain test you will also notice a
> value of 0.35, indicating a largely unreliable model.
>
> Arie.

SIG < zero is new to me, but I see it is mentioned in the NEC users
manual. Segmenting tags 1, 2, & 3 at 201 fixes the Average
gain test. Not sure if you can apply segment length tapering to speed up
the program.

Interesting design: VSWR < 2.5:1 over 1 MHz, Zin nominal 600 ohms,
fr ~ 6.8 MHz.

Frank

2261. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 14:53:05 UTC
From: jimbo <jimbo62@spamex.com>
Message-ID: <K_CdnZIhB6FW0v7ZnZ2dnUVZ_sadnZ2d@comcast.com>
Source record: 59702

Sal M. Onella wrote:
> "Dave Platt" <dplatt@radagast.org> wrote in message
> news:1262rjbni0pn39c@corp.supernews.com...
>
>
> < snip >
>
>>I haven't read any reports of actual experiments which attempted to
>>quantify the tuning stability of the classic J-pole ...
>
>
> < snip >
>
> That, sir is about to change:
>
> I wondered about the effect of mast material, so I took a freshly built
> j-pole and mounted it in the clear. I noted the XMIT reflected power (low)
> and moved a ten-foot piece of galvanized steel mast around the antenna, I
> found I had to get within about an inch to see the reflected power increase.
>
> Next, I found a repeater with nearly continuous chatter and connected the
> j-pole through an attenuator to my radio. I set the attenuator so the
> received audio was very noisy -- another dB or two and the conversation was
> unreadable. That same piece of mast material had essentially the same
> effect: had to get really close to louse up the antenna's performance.
>
> That said, if I take a j-pole and walk around with it, periodically
> measuring the reflected power, I will see physical locations where it bumps
> up. That's probably not detuning; it's probably reflected power off a wall
> or fence, which could be what's happening in the OP's attic. (Navy ship
> radars' reflected power monitors will "bump up" every time the antenna
> rotates past the mast or some other bit of ship's structure.)
>
> Is this great science? No. Is it worth noting? I hope so.
>
>

Maybe reflected power off of nearby objects is the cause of poor
performance of my J-Pole in the basement shop. And the attic has the
roof overhead and many, many cross braces, typical of pre-fab trusses.
Anyway, I am satisfied with the Arrow end fed antenna in the attic.
But, I am disappointed with my home made J-Poles. Maybe I will try a
little SO239 1/4 wave, just to see if there is any difference.

Thanks for the help, jimbo

2262. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 14:56:35 UTC
From: Wayne <mygarbagecan@verizon.net>
Message-ID: <DgI8g.10097$k%2.5837@trnddc03>
Source record: 59703
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"an old freind" <kb9rqz_ars@yahoo.com> wrote in message
news:1147279181.692670.292110@v46g2000cwv.googlegroups.com...
>
> Wayne wrote:
>> "Mike Speed" <mike8s2@yahoo.com> wrote in message
>> news:1147256694.983492.263500@e56g2000cwe.googlegroups.com...
>> >
>
>> > You stupid Fucks - don't you kow a troll when you see one! Jesus
>> > Christ!
>> >
>> Troll, or no troll.....it is not unreasonable to expect those of all ages
>> to
>> read this newsgroup. Accordingly, my expectation of this group is to
>> limit
>> the language in your posts to the type of language you would use on the
>> air.
>
> thenyou are foolish
>
> this is not on the air and indeed you can see worse on comercail tv
>
> grow up
>> --Wayne
>> W5GIE
>
Grow up? OK, even I am amused by that one.

Nevertheless, it is reasonable to expect that a technical forum representing
an amateur radio subject, have higher standards than cable TV language.
Wayne
W5GIE
```

2263. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 15:25:37 UTC
From: Dan Richardson <>
Message-ID: <kpl662p0gu1fq90a14a1l40j6mburlem5n@4ax.com>
Source record: 59704

On Thu, 11 May 2006 08:53:05 -0600, jimbo <jimbo62@spamex.com> wrote:

>Maybe reflected power off of nearby objects is the cause of poor
>performance of my J-Pole in the basement shop. And the attic has the
>roof overhead and many, many cross braces, typical of pre-fab trusses.
>Anyway, I am satisfied with the Arrow end fed antenna in the attic.
>But, I am disappointed with my home made J-Poles. Maybe I will try a
>little SO239 1/4 wave, just to see if there is any difference.

I'm wondering if you are using a common mode choke? Also what type of
mast are you using to support the antenna?

Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2264. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 16:02:08 UTC
From: jimbo <jimbo62@spamex.com>
Message-ID: <KN-dnSi89KJmwv7ZnZ2dnUVZ_vidnZ2d@comcast.com>
Source record: 59706

Dan Richardson wrote:
> On Thu, 11 May 2006 08:53:05 -0600, jimbo <jimbo62@spamex.com> wrote:
>
>
>>Maybe reflected power off of nearby objects is the cause of poor
>>performance of my J-Pole in the basement shop. And the attic has the
>>roof overhead and many, many cross braces, typical of pre-fab trusses.
>>Anyway, I am satisfied with the Arrow end fed antenna in the attic.
>>But, I am disappointed with my home made J-Poles. Maybe I will try a
>>little SO239 1/4 wave, just to see if there is any difference.
>
>
> I'm wondering if you are using a common mode choke? Also what type of
> mast are you using to support the antenna?
>
> Danny, K6MHE
>
> In my many years I have come to a conclusion that one
> useless man is a shame, two is a law firm, and three
> or more is a congress. - John Adams
>
> email: k6mhe<at>arrl<dot>net
> http://www.k6mhe.com/

I have tried with and without a coax loop, 5 turns about 6 inches in
diameter. I couldn't see any difference. I use a 1/8 inch diameter
rope to hang the J-Pole from a joist in the basement or from a roof
rafter in the attic.

jimbo

2265. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 16:51:21 UTC
From: Vito <vito@crosslink.net>
Message-ID: <44636b98$0$22188@dingus.crosslink.net>
Source record: 59707
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Silent Key" <cw.h@m.bands>
> When CW is lost, new hams will be just like CB'ers and SWL's, or some
> other lower life form of radio hobbiest. You name it.
>
Let's use proper nomenclature. There is little danger of CW going away. What is going away is Morse Code - replaced by more efficient ways of comunication. We're always asked "What would you do is the only way you could communicate was to turn your transmitter on and off?". Simple! I'd use Tap Code - you know the "CW" with only dots, no dashes - the one used by banging on pipes, the one anybody can use without tons of practice. Arrange the alphabet in a 5 x 5 matrix leaving out K (use 'c' instead). Each letter is addressed by its position in the matrix: a = 1,1; b = 1,2 .... f = 2,1 and so on. These become your "dits" or bangs or flashes or blinks as appropriate. I'm amazed at how few know this.

2266. Re: balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 17:06:22 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147367182.413003.124020@u72g2000cwu.googlegroups.com>
Source record: 59708
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 10 May 2006 12:50:08 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:
>
> >
> >Fred wrote:
> >> On 10 May 2006 09:15:37 -0700, "an old freind"

> >like i said you aredumber than I thought
>
> Now that you have admitted that you are infatuated with me
delsuional behaveoir i see

>, I'll
> forgive you for your shy, pathetic attempts at flirting with me.

and clear sexaul issues
> Still, I have no idea what you are saying.
becuase you don't want to
>Learn to spell and please
> learn to type.
obviously i can type you might have tried saying typ better but you are
so imprcise while demaning it ofothers

Id tell you to go to hell but i can se you are already there
> Otherwise you are almost too pathetic to mock.

no is making you mock me

indeed it makes you look petty but then it seesm you are petty so I
supose you need to kepp on to maintian apearences

2267. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 17:12:57 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147367577.614179.272360@q12g2000cwa.googlegroups.com>
Source record: 59709
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Wayne wrote:
> "an old freind" <kb9rqz_ars@yahoo.com> wrote in message
> news:1147279181.692670.292110@v46g2000cwv.googlegroups.com...
> >
> > Wayne wrote:

> >
> Grow up? OK, even I am amused by that one.
>
> Nevertheless, it is reasonable to expect that a technical forum representing
> an amateur radio subject, have higher standards than cable TV language.
why? or better what makes it higher?

to do so implies that it is accepted that there is soething worng
inherantly with saying or typing "shit" when "shit' is what you mean.

given that words like "shit" "fuck" have an impact beyond their
equivelanets feces, and fornication, why ot use them

the only that does is foisting a morality thatI don't accept

agree the word I mentioned and other are over used but that is a only a
problem in that it lessens their impact not that it is worng
> Wayne
> W5GIE

2268. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 17:37:42 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <_eydnY6xVqv56_7ZRVn-jw@comcast.com>
Source record: 59710
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

To: An Old Friend

Your choice of language clearly identifies your value system.

The subject you passionately defend is considered immoral by 90+ % of the people in the world, and ALL the world's established religions.

A multicultural society will condone your language and lifestyle; and, YES, you must condone their 'straight' lifestyles. Any right you claim for yourself you must also respect in others with whom you disagree.

Finally, this thread is so far off subject that it deserves a quick referral to the circular file.

2269. Re: balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 17:44:35 UTC
From: an old freind <kb9rqz@hotmail.com>
Message-ID: <1147369475.402895.302460@j33g2000cwa.googlegroups.com>
Source record: 59711
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Fred wrote:
> On 11 May 2006 10:06:22 -0700, "an_old_friend" <konstans@hotmail.com>
> wrote:

> >Id tell you to go to hell but i can se you are already there
> >> Otherwise you are almost too pathetic to mock.
> >
> >no is making you mock me
>
> Who or what is no and how is it commanding me to mock you?

none one as I said

2270. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 17:50:55 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1147369855.608384.157040@q12g2000cwa.googlegroups.com>
Source record: 59712
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dave wrote:
> To: An Old Friend
>
> Your choice of language clearly identifies your value system.

indeed
>
> The subject you passionately defend is considered immoral by 90+ % of
> the people in the world, and ALL the world's established religions.
now you are lying or misrepresenting the facts a comon practice on
usenet
Judaism does not cosider the use of vulgaity imoral. the Englash and
germeans and russains roitintinely use such langauge

you and other are simply bent on imposing your values on others by any
means
>
> A multicultural society will condone your language and lifestyle; and,
> YES, you must condone their 'straight' lifestyles.
your point? if any
>Any right you claim
> for yourself you must also respect in others with whom you disagree.
of course your point?
>
> Finally, this thread is so far off subject that it deserves a quick
> referral to the circular file.
why? becuase you don't like it

the proper answer to such is one word

BULLSHIT

2271. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 17:52:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1266ugd5lluk3b3@corp.supernews.com>
Source record: 59713

Jon Kï¿½re Hellan wrote:
> . . .
> Anyway, my *real* point was that this was a useful antenna. Carry one
> rolled up in your pocket and hang it from a tree to extend the range
> of your HT. . .

I did a bit of experimenting along this line and found that any fixed antenna hung from a tree was a poor way to extend range. As you probably know, multipath propagation causes dead spots every few cm -- the cause of "picket fencing" when mobile -- when you're in a marginal area where a better antenna would help. Any fixed antenna is fairly likely to end up in one of those dead spots. And additional gain due to height is likely to be largely canceled by feedline loss unless you carry along some large diameter coax.

What I've found to be the best VHF antenna for portable use in marginal conditions is a telescoping half wave antenna like the AEA "Hot Rod" or various imitators like the MFJ. They radiate as well as a J Pole, but have the advantage that you can move them around to find a "sweet spot".

Roy Lewallen, W7EL

2272. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 17:59:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1266us51nf8u8e0@corp.supernews.com>
Source record: 59714

jimbo wrote:
> Dan Richardson wrote:
>>
>> I'm wondering if you are using a common mode choke? Also what type of
>> mast are you using to support the antenna?
>>
>
> I have tried with and without a coax loop, 5 turns about 6 inches in
> diameter. I couldn't see any difference. I use a 1/8 inch diameter rope
> to hang the J-Pole from a joist in the basement or from a roof rafter in
> the attic.

A single choke blocks conducted common mode current. But a J pole (and ground plane, for that matter) can also have considerable common mode current due to coupling between the antenna and feedline, which can distort the pattern and reduce the gain at the horizon. This can actually be made worse by a choke in some cases. Two chokes, about a quarter wave apart, are necessary to reliably reduce the coupled current. The amount of conducted and coupled current you have without chokes depend on the feedline length and orientation, so it can be small in some installations and large in others. I suspect that's one reason why people report such widely varying degrees of success with this antenna.

Roy Lewallen, W7EL

2273. Re: balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 18:03:20 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1147370600.313187.187500@j73g2000cwa.googlegroups.com>
Source record: 59715
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

I could blame Stefan Balme for opening the jar of balm so quickly that
it went blam after he landed at El Bamel airport, but Mr. Balme would
probably not want someone to balme (or embalme) him.

(try spel chek)

2274. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 18:44:11 UTC
From: ricknj10@hotmail.com
Message-ID: <446384bf.58910828@news.optonline.net>
Source record: 59716
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

All you guys posting to this thread do not know anything about Usenet.

All this crap is being cross posted to newsgroups where there should
be no interest in this bickering, childish behavior.

Before you do any follow ups to this message, right before you hit
your send button, look at what newsgroups you are posting to. Delete
(do you know how to use your delete key?) all the newsgroups except
rec.radio.amateur.misc. then the antenna newsgroup and the equipment
newsgroup etc. will not be seeing the posts which are IRRELEVANT.
So if you like this bullshit bickering stuff go on over to
rec.radio.amateur.misc and you will see there are lots and lots of
them to entertain you all night long. You can call all of the posters
there names to your hearts content.

Rick K2XT

2275. Re: cw trolling

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 18:53:22 UTC
From: ricknj10@hotmail.com
Message-ID: <4463876d.59597312@news.optonline.net>
Source record: 59717
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On Wed, 10 May 2006 22:14:39 -0000, Q <Q@nowhere.com> wrote:
If you are thinking of writing a follow up message on this subject, do
this -
up at the top of your message delete all of the newsgroup names (like
rec.radio.amateur.antenna) EXCEPT rec.radio.amateur.misc because this
subject belongs there only. It does not relate to antennas, equipment
etc.

Thank you very much.

Rick

2276. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 18:56:12 UTC
From: ricknj10@hotmail.com
Message-ID: <44638837.59799140@news.optonline.net>
Source record: 59718
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

If you are considering posting a floowup to this message do this:

Up on the top of your message delete all of the newsgroup names EXCEPT
rec.raio.amateur.policy because the antenna guys and the equipment
guys do not really care about this subject.

Thank you very much. The whole world will think you are much more
intelligent now that you know how to use Usenet.

Rick

2277. Re: I blame the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 18:58:14 UTC
From: ricknj10@hotmail.com
Message-ID: <446388db.59963312@news.optonline.net>
Source record: 59719
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

If you are considering a follow up to this messsage do this:

Up on top of the message delete all newsgroup name except
rec.radio.amateur.policy

then go over to rec.radio.amateur.policy and check to make sure your
message got posted there.
And while you are there I am sure you will find lots of similar
messages to read that will entertain you all night.

Rick

2278. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 20:02:57 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1147377776.973767.206450@q12g2000cwa.googlegroups.com>
Source record: 59720
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Dr.Death wrote:
> "Noon-Air" <Noon-Air@comcast.net> wrote in message
> news:zsednQItNOzyhPzZnZ2dnUVZ_tCdnZ2d@comcast.com...
> >

> I guess you missed the part of the bible dealing with Sodom and Gomorra
> being leveled because of deviant sex.

it looks like you missed the facts fot he case Sodom and Gomora were
leveled for the ciolations of the law of hospitality

learn to read Dr

2279. TX to Antenna cable length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 20:28:41 UTC
From: MRW <mr.whatever@gmail.com>
Message-ID: <1147379321.629323.9340@q12g2000cwa.googlegroups.com>
Source record: 59721

Hi everybody! I want to mount a dipole FM antenna on top of a three story building. My transmitter will be located in a room in the bottom floor. Has anyone have experience in this?

I know that I will get some signal attenuation with that long of a coaxial cable (100 meters). If my cable has a characteristic impedance of 50 ohms (matching the output impedance of the transmitter), will it adversely affect my transmission?

I was reading my electromagnetics book and it mentions that depending on transmission line length the cable might look like an inductor or capacitor.

What other factors should I take into account my calculations for the effect of the cable length on the system?

My current setup includes a 100w low power fm transmitter being fed by a computer running some school audio programs. Thnx!

2280. Re: TX to Antenna cable length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 20:48:29 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <xqN8g.4060$fb2.3444@newssvr27.news.prodigy.net>
Source record: 59722

"MRW" <mr.whatever@gmail.com> wrote:
> My current setup includes a 100w low power fm transmitter being fed by
> a computer running some school audio programs.

What call letters did the FCC issue to that FM station?
--
73, Cecil, W5DXP

2281. Re: TX to Antenna cable length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 21:01:15 UTC
From: dplatt@radagast.org
Message-ID: <12679gr9ej6sl2b@corp.supernews.com>
Source record: 59723

>Hi everybody! I want to mount a dipole FM antenna on top of a three
>story building. My transmitter will be located in a room in the bottom
>floor. Has anyone have experience in this?

Many people do, I'm sure.

>I know that I will get some signal attenuation with that long of a
>coaxial cable (100 meters). If my cable has a characteristic impedance
>of 50 ohms (matching the output impedance of the transmitter), will it
>adversely affect my transmission?

It may, depending on the type of cable you use. Thin-gauge coax cable
(e.g. RG-58) will cause significant attenuation over that long a
run, at those frequencies. Heavier-gauge cable would have lower loss.
I wouldn't use anything less than a high-quality RG-8-type cable (e.g.
LMR400), and would seriously consider using a hardline (e.g. cable-TV
aluminum-jacket).

>I was reading my electromagnetics book and it mentions that depending
>on transmission line length the cable might look like an inductor or
>capacitor.
>
>What other factors should I take into account

Umm, the possiblity that you might end up having your equipment seized,
and/or be hit with a really heavy fine, if you don't do all of the
paperwork properly?

> my calculations for the
>effect of the cable length on the system?
>
>My current setup includes a 100w low power fm transmitter being fed by
>a computer running some school audio programs. Thnx!

Are you intending to operate a legitimately-licensed educational LPFM
(low-power FM) station on behalf of your school? If so, whomever
filed your LPFM application to get an FCC construction permit ought to
have done a lot of the necessary design work and calculations at that
time.

If you haven't received an LPFM license from the FCC (new applications
haven't been accepted since 2003, apparently, and such licenses aren't
available to private individuals), I'd advise against attempting this
sort of installation. The FCC occasionally raids "pirate" FM
stations (those operating unlicensed), seizing the equipment and
citing the owners/operators. The financial penalties for operating an
unlicensed FM station could be really severe.

I don't think there's any chance at all that a "100w low power" FM
transmitter could reasonably be used in a way which would qualify it
under the FCC Part 15 limits for field strength (250 microvolts per
meter, measured at a distance of 3 meters from the antenna) if you
feed that much power into a dipole antenna.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2282. Re: balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 21:15:01 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060511173236.371$IB@newsreader.com>
Source record: 59626
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"John S." <hjsjms@cs.com> wrote:
> I could blame Stefan Balme for opening the jar of balm so quickly that
> it went blam after he landed at El Bamel airport, but Mr. Balme would
> probably not want someone to balme (or embalme) him.
>
> (try spel chek)
>
>
With a Pair of heavy-duty
Zircon-encrusted tweezers in my hand
Every other wrangler would say
I was mighty grand

By myself I wouldn't
Have no boss

But I'd be raisin' my lonely Dental Floss ($1 F Zappa)

2283. Re: J_Pole Trials and Tribulations

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 21:17:27 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4463a9e7$0$6151$39cecf19@news.twtelecom.net>
Source record: 59724

Roy Lewallen wrote:

> jimbo wrote:
>>
>> I have tried with and without a coax loop, 5 turns about 6 inches in
>> diameter. I couldn't see any difference. I use a 1/8 inch diameter
>> rope to hang the J-Pole from a joist in the basement or from a roof
>> rafter in the attic.
>
>
> A single choke blocks conducted common mode current. But a J pole (and
> ground plane, for that matter) can also have considerable common mode
> current due to coupling between the antenna and feedline, which can
> distort the pattern and reduce the gain at the horizon. This can
> actually be made worse by a choke in some cases. Two chokes, about a
> quarter wave apart, are necessary to reliably reduce the coupled
> current. The amount of conducted and coupled current you have without
> chokes depend on the feedline length and orientation, so it can be small
> in some installations and large in others. I suspect that's one reason
> why people report such widely varying degrees of success with this antenna.
>
> Roy Lewallen, W7EL

Isn't 6 inch diameter a little large for 2 meters?

tom
K0TAR

2284. 2 Meter Choke Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 21:20:32 UTC
From: Darrell Bellerive <va7to@rac.ca>
Message-ID: <1147382432.043333.249780@v46g2000cwv.googlegroups.com>
Source record: 59725

>From what I have read there seem to be two common types of choke baluns employed at 146 MHz, the coiled coax balun and the W2DU type with ferrite beads over the coax. Looks like other types of baluns such as the sleeve balun or a Guanella toroidal balun could also be used.

Other than the obvious restrictions imposed by physical mounting arrangements, what are the advantages and disadvantages of each type.

There seems to be considerable variation in the design of coiled coax baluns, with most designers advocating a few turns of coax with a diameter of 3 to 8 inches. One designer was convinced that anything over 3/4 of an inch would not be functional at VHF frequencies. Others maintain that the coil of coax should be wound on a core keeping the turns aligned, while others simply coil the coax up and tape it together. Some recommend one coax width of air between turns.

With regard to ferrite beads on the coax type of balun, how many ferrite beads of what type are most effective? Some advocate that another set of ferrite beads be placed at a point below the feedpoint.

Seems there is lots of latitude in construction of these types of baluns. Are they really this forgiving, or are there a lot of less than full effective balun designs?

I'm trying to decide what is the best option for me, and am confused at all the variations.

Darrell
VA7TO

2285. Re: TX to Antenna cable length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 21:41:52 UTC
From: MRW <mr.whatever@gmail.com>
Message-ID: <1147383712.361968.233170@g10g2000cwb.googlegroups.com>
Source record: 59627

I forgot to mention that the radio station is not based under FCC jurisdictions. It is used for a none government / non-profit organization in another country.

2286. Re: TX to Antenna cable length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 22:03:36 UTC
From: dplatt@radagast.org
Message-ID: <1267d5oj2f4ea05@corp.supernews.com>
Source record: 59628

In article <1147383712.361968.233170@g10g2000cwb.googlegroups.com>,
MRW <mr.whatever@gmail.com> wrote:

>I forgot to mention that the radio station is not based under FCC
>jurisdictions. It is used for a none government / non-profit
>organization in another country.

Ah, OK. That clarifies things quite a bit. Just make sure that you
cover your bases with the other government's authorities... some of
them may be as humorless as the FCC.

First thing I'd do is suggest that you take a look at coaxial-cable
attenuation figures. http://users.erols.com/rfc/attenrat.htm has a nice
table which shows the attenuation in dB per 100' of cable, at various
frequencies. For a first approximation I'd suggest using the "100
MHz" column.

As you'll see, 100 feet of RG-58 coax has an attenuation of 4.5 - 5 dB
at 100 MHz. That means that almost 3/4 of the power is lost as heat
in the cable - only about a third of the power makes it up to the
antenna. If you *really* need a 100-meter run of cable, triple that
loss... only a single-digit percentage of your power will reach the
antenna.

Good RG-8-size cable is better. LMR-400 loses 1.2 dB per 100', which
means that you'd get almost half of your transmitter power up to an
antenna 100 meters away. LMR-600 is even better, at 0.8 dB per 100' -
you'd have more than half of your power left. Some of the really
fancy/thick/expensive hardline cables are even better - LDF5-50A
would have just a hair more than 1 dB of total loss in 100 meters,
which would really be negligible.

This suggests two things:

- It'd pay big rewards to see if you can route the cable as directly as
possible. I can't see any good reason to run 100 meters of cable
to go up a "three story" building!

- Don't use cheap, thin cable... don't use anything less than RG-8.

As I mentioned before, aluminum-jacketed cable-TV "hardline" may be a
choice to consider. It's often available in useful lengths, either
for free or for scrap value, from cable-TV operators - they buy and
install it in large quantities and often don't have a use for the
"cut-off" pieces at the end of the spool (and such "cut-off" remnants
may be 100' or more in length).

This sort of cable has a 75-ohm characteristic impedance. It might
actually provide a better match to a dipole antenna than 50-ohm cable
would (depending on the antenna type and mounting arrangement). The
modest SWR at the transmitter might or might not be an issue... if it
is, a simple two-component (one-inductor, one-capacitor) "L" matching
network can allow the transmitter to "see" a 50-ohm load even though
the antenna and coax are both 75-ohm.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2287. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-11 22:52:50 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <a7f7629hiu0uhh6vk3mp0ee9apt93t9d23@4ax.com>
Source record: 59629
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On 11 May 2006 10:50:55 -0700, "an old friend" <kb9rqz@hotmail.com>
wrote:

>
>Dave wrote:
>> To: An Old Friend
>>
>> Your choice of language clearly identifies your value system.
>
>indeed
>>
>> The subject you passionately defend is considered immoral by 90+ % of
>> the people in the world, and ALL the world's established religions.
>now you are lying or misrepresenting the facts a comon practice on
>usenet
> Judaism does not cosider the use of vulgaity imoral. the Englash and
>germeans and russains roitintinely use such langauge
>
>you and other are simply bent on imposing your values on others by any
>means
>>
>> A multicultural society will condone your language and lifestyle; and,
>> YES, you must condone their 'straight' lifestyles.
>your point? if any
>>Any right you claim
>> for yourself you must also respect in others with whom you disagree.
>of course your point?
>>
>> Finally, this thread is so far off subject that it deserves a quick
>> referral to the circular file.
>why? becuase you don't like it
>
>the proper answer to such is one word
>
>BULLSHIT

The school yard is often lively with youngsters demonstrating their
capability of spewing out newly learned potty words that they
envision makes them more of a man.
However when they do mature they usually realize that kind of language
really only makes them appear child like. Some never do get it.

Regards
Gary

2288. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 00:01:13 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147392073.690172.177160@i39g2000cwa.googlegroups.com>
Source record: 59630
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Gary Schafer wrote:
> On 11 May 2006 10:50:55 -0700, "an old friend" <kb9rqz@hotmail.com>
> wrote:
>
> >
> >Dave wrote:
> >> To: An Old Friend

> >the proper answer to such is one word
> >
> >BULLSHIT
>
> The school yard is often lively with youngsters demonstrating their
> capability of spewing out newly learned potty words that they
> envision makes them more of a man.
> However when they do mature they usually realize that kind of language
> really only makes them appear child like. Some never do get it.

every word or phrase has its place and its use as does everymode of
beahvoir including say genecide the problem with all them is not that
they are imoral but siply over used

thus teacxhes the Talmund at any rate

PTOH childish is not imoral which was the posters point
>
> Regards
> Gary

2289. Re: TX to Antenna cable length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 00:49:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <nfSdnTKlv_76Qf7ZnZ2dnUVZ8qadnZ2d@bt.com>
Source record: 59631

"MRW" <mr.whatever@gmail.com> wrote in message
news:1147379321.629323.9340@q12g2000cwa.googlegroups.com...
> Hi everybody! I want to mount a dipole FM antenna on top of a three
> story building. My transmitter will be located in a room in the
bottom
> floor. Has anyone have experience in this?
>
> I know that I will get some signal attenuation with that long of a
> coaxial cable (100 meters). If my cable has a characteristic
impedance
> of 50 ohms (matching the output impedance of the transmitter), will
it
> adversely affect my transmission?
>
> I was reading my electromagnetics book and it mentions that
depending
> on transmission line length the cable might look like an inductor or
> capacitor.
>
==========
That the cable will look like an inductance or capacitor is a load of nonsense. Change the books you've been reading. Don't read the comics.

For minimum loss in the cable the input impedance of the antenna should be approximately the same as the cable impedance.

If the cable loss is 3dB then half of the transmitter power will be lost in the cable. Check the cable manufacturer's specification for actual loss per unit of length.

Very approximately, if the diameter of the coaxial cable is doubled then the loss in the cable, in dB, will be halved.

On the other hand, if 3/4 of the Tx power is lost in the cable, then depending on the distance to the customers' receivers, it might not matter very much. Everything depends on the required service area of the transmitting station. There's not much point in buying expensive cable to radiate 100 watts if 25 watts with cheap nasty stuff is good enough.

Think in terms of your bank balance.

Reg, G4FGQ

2290. Bob Grant Tribute, Part 3

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 01:05:14 UTC
From: NewsGuy <NewsGuy2005@gmail.com>
Message-ID: <1147395914.590832.291790@v46g2000cwv.googlegroups.com>
Source record: 59632

The collection of phone calls made by The Right Perspective's Frank and John to The Great One continues with this installment made after Sept. 11, 2001.

http://therightperspectivepodcastblog.blogspot.com/2006/05/bob-grant-tribute-part-3.html

Also Avaialable:

Bob Grant Tribute, Part 1:
http://therightperspectivepodcastblog.blogspot.com/2006/02/bob-grant-tribute.html

Bob Grant Tribute, Part 2:
http://therightperspectivepodcastblog.blogspot.com/2006/02/bob-grant-tribute-part-2.html

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2291. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 01:19:23 UTC
From: CW <s@earthlink.net>
Message-ID: <voR8g.1387$y4.750@newsread2.news.pas.earthlink.net>
Source record: 59633
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Vito" <vito@crosslink.net> wrote in message
news:44636b98$0$22188@dingus.crosslink.net...
> "Silent Key" <cw.h@m.bands>
> > When CW is lost, new hams will be just like CB'ers and SWL's, or some
> > other lower life form of radio hobbiest. You name it.
> >
> Let's use proper nomenclature. There is little danger of CW going away.
What
> is going away is Morse Code - replaced by more efficient ways of
comunication.
> We're always asked "What would you do is the only way you could
communicate was
> to turn your transmitter on and off?". Simple! I'd use Tap Code - you
know the
> "CW" with only dots, no dashes - the one used by banging on pipes, the one
> anybody can use without tons of practice. Arrange the alphabet in a 5 x 5
> matrix leaving out K (use 'c' instead). Each letter is addressed by its
> position in the matrix: a = 1,1; b = 1,2 .... f = 2,1 and so on. These
become
> your "dits" or bangs or flashes or blinks as appropriate. I'm amazed at
how few
> know this.
>
>

Since, as you observed, so few people know it, what's the chances of it
being of any use?

2292. Re: Bob Grant Tribute, Part 3

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 01:24:04 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4463e3b4$0$6149$39cecf19@news.twtelecom.net>
Source record: 59634

NewsGuy wrote:

> The collection of phone calls made by The Right Perspective's Frank and

GOAT

2293. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 03:10:52 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4463FCBC.4090005@fuse.net>
Source record: 59635
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Vito wrote:
> "Silent Key" <cw.h@m.bands>
>
>>When CW is lost, new hams will be just like CB'ers and SWL's, or some
>>other lower life form of radio hobbiest. You name it.
>>
>
> Let's use proper nomenclature. There is little danger of CW going away. What
> is going away is Morse Code - replaced by more efficient ways of comunication.
> We're always asked "What would you do is the only way you could communicate was
> to turn your transmitter on and off?". Simple! I'd use Tap Code - you know the
> "CW" with only dots, no dashes - the one used by banging on pipes, the one
> anybody can use without tons of practice. Arrange the alphabet in a 5 x 5
> matrix leaving out K (use 'c' instead). Each letter is addressed by its
> position in the matrix: a = 1,1; b = 1,2 .... f = 2,1 and so on. These become
> your "dits" or bangs or flashes or blinks as appropriate. I'm amazed at how few
> know this.
>
>
I don't see how this is any more efficient (indeed, it appears to be
less efficient) than CW-Morse code. My understanding is that Morse
wisely used the least complicated sequences for the most commonly used
letters. I think this is also true of PSK31, but I could be wrong.

Consider the letter "E": a single "dit" in Morse, but it becomes
one "tap" followed by 5 "taps" in the above scheme. None too efficient,
it seems to me.

2294. Re: balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 03:18:31 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4463FE87.8090706@fuse.net>
Source record: 59636
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Steveo wrote:
> "John S." <hjsjms@cs.com> wrote:
>
>>I could blame Stefan Balme for opening the jar of balm so quickly that
>>it went blam after he landed at El Bamel airport, but Mr. Balme would
>>probably not want someone to balme (or embalme) him.
>>
>>(try spel chek)
>>
>>
>
> With a Pair of heavy-duty
> Zircon-encrusted tweezers in my hand
> Every other wrangler would say
> I was mighty grand
>
> By myself I wouldn't
> Have no boss
>
> But I'd be raisin' my lonely Dental Floss ($1 F Zappa)
Yippie-ay-yo-ti-yaaaa

2295. Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 07:53:55 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <naX8g.272123$8Q3.113664@fe1.news.blueyonder.co.uk>
Source record: 59637

Is there any optimum height for a 3ft dia magloop, or is it dependent on frequency??.

I have mine planted in the lawn with the top about 6ft from the ground (on a rotator!)
and was curious whether to work it against ground or put it at the top of the tower,
or have i completely lost the plot???, Heh heh........

Surprising how cheaply a magloop can be built for and after 12 months it still works well!!.

Thanks.....

Lee.......G6ZSG.....

2296. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 09:27:23 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97C118FCD5DAAdoldridgsprintca@64.59.135.159>
Source record: 59638

"Lee" <lo012a4519@blueyonder.co.uk> wrote in
news:naX8g.272123$8Q3.113664@fe1.news.blueyonder.co.uk:

> Is there any optimum height for a 3ft dia magloop, or is it dependent
> on frequency??.
>
> I have mine planted in the lawn with the top about 6ft from the ground
> (on a rotator!)
> and was curious whether to work it against ground or put it at the top
> of the tower,
> or have i completely lost the plot???, Heh heh........
>
> Surprising how cheaply a magloop can be built for and after 12 months
> it still works well!!.

What band is yours on? I have a 55-inch diameter coax loop that I'm using on 75, but I'm seriously thinking of working up a multiband design in soft-drawn 3/4" copper pipe. It would be six feet in diameter (mainly due to space considerations).

--
Dave Oldridge+
ICQ 1800667

2297. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 11:53:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <0aydnY2KOOf-5fnZnZ2dnUVZ8qOdnZ2d@bt.com>
Source record: 59639

"Lee" <lo012a4519@blueyonder.co.uk> wrote in message
news:naX8g.272123$8Q3.113664@fe1.news.blueyonder.co.uk...
> Is there any optimum height for a 3ft dia magloop, or is it
dependent on
> frequency??.
>
> I have mine planted in the lawn with the top about 6ft from the
ground (on a
> rotator!)
> and was curious whether to work it against ground or put it at the
top of
> the tower,
> or have i completely lost the plot???, Heh heh........
>
> Surprising how cheaply a magloop can be built for and after 12
months it
> still works well!!.
>
> Thanks.....
>
> Lee.......G6ZSG.....
>
==========
Lee,

There is no optimum height for a magloop.

Loss induced in the ground reduces as height above ground increases.

When the height of the bottom of the loop is more than the loop
diameter, loss in the ground can be considered negligible.

This is modelled in program MAGLOOP4 which can be downloaded from the
website below and run immediately.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

2298. Re: 2 Meter Choke Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 14:15:36 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <cM09g.25322$4L1.9785@newssvr11.news.prodigy.com>
Source record: 59640

"Darrell Bellerive" <va7to@rac.ca> wrote:
> There seems to be considerable variation in the design of coiled coax
> baluns, with most designers advocating a few turns of coax with a
> diameter of 3 to 8 inches.

Well, one sure wouldn't want the circumference to be one wavelength. :-)
--
73, Cecil, W5DXP

2299. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 14:27:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <WKSdnXeTJ8mGAfnZRVnygg@bt.com>
Source record: 59641

"Dave Oldridge" <doldridg@leavethisoutshaw.ca> wrote in message
news:Xns97C118FCD5DAAdoldridgsprintca@64.59.135.159...
> "Lee" <lo012a4519@blueyonder.co.uk> wrote in
> news:naX8g.272123$8Q3.113664@fe1.news.blueyonder.co.uk:
>
> > Is there any optimum height for a 3ft dia magloop, or is it
dependent
> > on frequency??.
> >
> > I have mine planted in the lawn with the top about 6ft from the
ground
> > (on a rotator!)
> > and was curious whether to work it against ground or put it at the
top
> > of the tower,
> > or have i completely lost the plot???, Heh heh........
> >
> > Surprising how cheaply a magloop can be built for and after 12
months
> > it still works well!!.
>
> What band is yours on? I have a 55-inch diameter coax loop that I'm
using
> on 75, but I'm seriously thinking of working up a multiband design
in soft-
> drawn 3/4" copper pipe. It would be six feet in diameter (mainly
due to
> space considerations).
>
> Dave Oldridge+
> ICQ 1800667
==========
Dave,

Magloops with copper pipes are the most efficient of all small
antennas.

They should be rotateable through about 45 degrees.

Changing from coax loop to 3/4" or 1" copper pipe loop will be a
considerable improvement on both transmit and receive. Especially if
it is not too low above ground and is not in a cluttered environment.
The idea is to keep ground loss less than conductor loss.

For multi-band operation you will be best with a motor-driven vaccuum tuning capacitor. With a 1000pF capacitor and a small loop the 160, 80 and 40m bands can be covered. It depends on the minimum capacitor setting and loop perimeter.

There is no noticeable difference between aluminium alloy and copper pipe. Aluminium alloy is lighter in weight and stands up to the weather better but is more difficult to bend.

A square loop is not noticeably worse in performance than a circular loop and may be easier to construct.

Download program MAGLOOP4 from my website. It may provide food for thought.

Reg, G4FGQ.

2300. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 14:55:08 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <wcOdneEHs_keP_nZRVny1w@bt.com>
Source record: 59642

Error correction :

They need be rotateable only through about 90 (ninety) degrees.

This is to ensure an antenna can always be directed towards maximum signal even when there are 3 or 4 plastic guy ropes from the top of the loop which can prevent a complete rotation.

Reg, G4FGQ.

2301. REALISTIC DX-302 HAM-SHORTWAVE RECEIVER-MINT-$150

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 16:03:35 UTC
From: "DesertBob Jr." <winchester1886@hotmail.com>
Message-ID: <1147449814.997242.188670@i39g2000cwa.googlegroups.com>
Source record: 59643

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=9724283116&rd=1&sspagename=STRK%3AMESE%3AIT&rd=1

DX-302 REALISTIC SHORTWAVE RECEIVER..MANUFACTURED IN THE EARLY 1980'S..THE DX-302 SELECTIVITY SWITCH IS A TRUE IF FILTER WITH WIDE AND NARROW..WILL ALSO RUN ON BATTERY POWER..HAS A PRESELECTOR TUNE SWITCH..30 BANDS OF 1MHZ ON THE INNER TUNING DIAL..AND THE OUTER TUNING DIAL TUNES EVERY 1 KHZ...RECEIVES FROM 050 KHZ THROUGH 30 MHZ..HAS ATTEN SWITCH TO CUT DOWN STRONG SIGNALS..AND BFO PITCH FOR LSB/USB/CW...RF GAIN AND AF GAIN/POWER SWITCH..HEADPHONE JACK AND COAX AND SCREW TYPE ANTENNA CONNECTOR..THIS RECEIVER IS IN MINT LIKE NEW CONDITION.NO SCRATCHES OR OTHER PROBLEMS WITH IT. .READOUT IS BRIGHT RED AND ALL LIGHTS ARE IN WORKING ORDER AND DIALS TURN FREELY.

This is a communications receiver that covers 10kc - 30 mc in 1 mc bands. This radio is in MINT condition. Original knobs, crisp lettering, cabinet and front panel are excellent. Rear battery box is complete with battery tubes. Large red LED readout, wide and narrow selectivity, AM/SSB/CW capable and much more make this a fun receiver. Original cabinet paint is PERFECT.

2302. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 16:10:06 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <bNOdnWUtRKzBLvnZnZ2dneKdnZydnZ2d@insightbb.com>
Source record: 59644

Does it matter if the remotely tuned capacitor is at the top or the bottom
of the loop?

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:wcOdneEHs_keP_nZRVny1w@bt.com...
> Error correction :
>
> They need be rotateable only through about 90 (ninety) degrees.
>
> This is to ensure an antenna can always be directed towards maximum
> signal even when there are 3 or 4 plastic guy ropes from the top of
> the loop which can prevent a complete rotation.
> ----
> Reg, G4FGQ.
>
>
>

2303. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 17:19:26 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1147454366.430484.58780@j73g2000cwa.googlegroups.com>
Source record: 59645

As far as an "optimum" height, it seems that a loop oriented such that it lies in a vertical plane, such as the one you have and Reg is describing is not going to perform better as you change the height, once you're far up enough to eliminate ground return losses. In fact, my little toy EZNEC model at 14Mhz with a 4' loop shows the development of high angle lobes if you increase the height of a vertical-plane magloop.

Seems though that if you oriented the loop such that it was in a horizontal plane and put it at a good "DX height", up where a dipole would start to give good low angle radiation, you would get an omnidirectional azimuth pattern but the elevation pattern more like a dipole at that height. This could be advantageous if you have a high support.

So if you're down at 3.5MHz or something, loop in the vertical plane near the ground is the way to go, as you'd not likely be able to get the loop up high in terms of wavelengths.

Seems, though, if you had a 20m (1 wavelength @ 14MHz) high tower with low windload capability and wanted to put up a horizontal-plane loop for 14MHz, you'd get more gain at low angles than a near-ground-mounted vertical-plane loop.

It's analogous to the situation with a ground mounted vertical vs. a high dipole. The ground mounted vertical has better low angle radiation than a low dipole, but not better than that of a high dipole, and leads to the usual situation of verticals for the low bands and horizontal antennas for the high bands.

<< this comment over normal soil, if you've got saltwater, pse disregard :-) >>

73,
Dan
N3OX

2304. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 17:52:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <alednd TX8o--UfnZRVny2A@bt.com>
Source record: 59646

> Does it matter if the remotely tuned capacitor is at the top or the
bottom
> of the loop?
>
==========
In principle, it doesn't matter.

But it is important the capacitor is located diametrically opposite to whatever arrangements there are to feed the loop.

Ideally the loop should, as far as possible, be isolated and be allowed to find its own electric balance with respect to ground.

The capacitor itself is likely to be unbalanced with respect to ground. So it it is better to place it as far as possible from the ground and everthing else, i.e., at the top. The highest voltages are concentrated at the ends of the loop connected to the capacitor.

It is best NOT to connect the main loop to the feedline. Use a small coupling loop in the same plane as the main loop and about 1/5 of the diameter if the coax is 50-ohms. For 75-ohm coax it is about 1/4 of the diameter.

Isolating the main loop from the coupling loop and feedline prevents RF current from finding its way on to the feedline.

If the capacitor motor is not very well isolated from the capacitor itself then place an RF choke in the bunch of control wires near to the motor. Bring the control wires down from the motor across the loop diameter and in a neutral electric field. Anything which comes down vertically across the diameter is in a neutral field. It could be a metal mast to support the motor and, via the motor, the top of the loop itself.

In general, having the capacitor at the bottom of the main loop is more likely to unbalnce the capacitance of the loop to ground.

Reg, G4FGQ.

2305. Re: 2 Meter Choke Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 18:51:45 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <gwr$ApOBINZEFAk7@ifwtech.co.uk>
Source record: 59647

Cecil Moore wrote:
>"Darrell Bellerive" <va7to@rac.ca> wrote:
>> There seems to be considerable variation in the design of coiled coax
>> baluns, with most designers advocating a few turns of coax with a
>> diameter of 3 to 8 inches.
>
>Well, one sure wouldn't want the circumference to be one wavelength. :-)

Tie a knot in the coax, and pull tight until the loop inductance
resonates with the capacitance.

Always wondered if that one would work...

--
73 from Ian GM3SEK

2306. Re: 2 Meter Choke Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 19:17:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <tdydnZTFMKfWffnZRVnyjg@bt.com>
Source record: 59648

"Darrell Bellerive" <va7to@rac.ca> wrote in message
news:1147382432.043333.249780@v46g2000cwv.googlegroups.com...
> >From what I have read there seem to be two common types of choke
baluns
> employed at 146 MHz, the coiled coax balun and the W2DU type with
> ferrite beads over the coax. Looks like other types of baluns such
as
> the sleeve balun or a Guanella toroidal balun could also be used.
>
> Other than the obvious restrictions imposed by physical mounting
> arrangements, what are the advantages and disadvantages of each
type.
>
> There seems to be considerable variation in the design of coiled
coax
> baluns, with most designers advocating a few turns of coax with a
> diameter of 3 to 8 inches. One designer was convinced that anything
> over 3/4 of an inch would not be functional at VHF frequencies.
Others
> maintain that the coil of coax should be wound on a core keeping the
> turns aligned, while others simply coil the coax up and tape it
> together. Some recommend one coax width of air between turns.
>
> With regard to ferrite beads on the coax type of balun, how many
> ferrite beads of what type are most effective? Some advocate that
> another set of ferrite beads be placed at a point below the
feedpoint.
>
> Seems there is lots of latitude in construction of these types of
> baluns. Are they really this forgiving, or are there a lot of less
than
> full effective balun designs?
>
> I'm trying to decide what is the best option for me, and am confused
at
> all the variations.
>
> Darrell
> VA7TO
==========

The first thing to do is define precisely what you want the choke
balun to do and why. Then you might be getting somewhere.

If you don't know, you don't need one. Then you can forget and stop worrying about it.

2307. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 19:35:11 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <ypudnWNzE5jxfvnZRVn-rA@insightbb.com>
Source record: 59649

Thank you, Reg, for your comments. They are especially relevant for the project I am currently working on.

John, N9JG

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message news:aIednd TX8o--UfnZRVny2A@bt.com...
>> Does it matter if the remotely tuned capacitor is at the top or the
> bottom
>> of the loop?
>>
> ==
> In principle, it doesn't matter.
>
> But it is important the capacitor is located diametrically opposite to
> whatever arrangements there are to feed the loop.
>
> Ideally the loop should, as far as possible, be isolated and be
> allowed to find its own electric balance with respect to ground.
>
> The capacitor itself is likely to be unbalanced with respect to
> ground. So it it is better to place it as far as possible from the
> ground and everthing else, i.e., at the top. The highest voltages are
> concentrated at the ends of the loop connected to the capacitor.
>
> It is best NOT to connect the main loop to the feedline. Use a small
> coupling loop in the same plane as the main loop and about 1/5 of the
> diameter if the coax is 50-ohms. For 75-ohm coax it is about 1/4 of
> the diameter.
>
> Isolating the main loop from the coupling loop and feedline prevents
> RF current from finding its way on to the feedline.
>
> If the capacitor motor is not very well isolated from the capacitor
> itself then place an RF choke in the bunch of control wires near to
> the motor. Bring the control wires down from the motor across the
> loop diameter and in a neutral electric field. Anything which comes
> down vertically across the diameter is in a neutral field. It could be
> a metal mast to support the motor and, via the motor, the top of the
> loop itself.
>
> In general, having the capacitor at the bottom of the main loop is
> more likely to unbalnce the capacitance of the loop to ground.
> ----
> Reg, G4FGQ.

>
>

2308. SEEMS LIKE SOME FOLKS DON'T LIKE HAM RADIO TOWERS.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 20:33:03 UTC
From: JJ <jamesevns75@hotmail.com>
Message-ID: <th69g.153$KQ3.9@fe11.lga>
Source record: 59650

Hi all, click on the link below or copy and paste it in your browsers
"go to" area.
Seems some Seems some folks don't like ham radio towers.

http://www.youtube.com/watch?v=aC_EeWSKJII

73

2309. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 20:44:10 UTC
From: Radio Buff <em@il.here>
Message-ID: <us69g.1632$y4.1107@newsread2.news.pas.earthlink.net>
Source record: 59651
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Galen, W8LNA" <w8lna@arrl.net> wrote in
news:shv8g.488$oa1.132@news02.roc.ny:

> Radio Buff wrote:
>>
>> As ham radio test standards have lowered over the years, I've noted a
>> marked increase in the amount of obscenity, profanity, and indecency.
>>
>> RB
>
> At the same time the price of gasoline has gone up, the minimum wage has
> gone up, the stock market has gone up but in just about all areas of
> society mutual respect and courtesy have gone down.
>
> I think it has very little if anything at all to do with Morse code.
>
> W8LNA

And I've never heard a couple ops insult or cuss each other out in CW
either.

sc

2310. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 20:44:14 UTC
From: Radio Buff <send.em@il.here>
Message-ID: <ys69g.1634$y4.611@newsread2.news.pas.earthlink.net>
Source record: 59652
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in
news:1265cea4sqoqe7@corp.supernews.com:

> "Short Circuit" <em@il.here> wrote in message
> news:3Fu8g.978$x4.372@newsread3.news.pas.earthlink.net...
>> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in
>> news:1262mh57s1pubbf@corp.supernews.com:
>>
>>> "Signal Chaser" <em@il.here> wrote in message
>>> news:1w88g.2089$u4.1888@newsread1.news.pas.earthlink.net...
>>>> "an old friend" <kb9rqz@hotmail.com> wrote in
>>>> news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:
>>>>
>>>>>
>>>>> Sinpo Code wrote:
>>>>>> Lancer <lancer@rock.com> wrote in
>>>>>> news:08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com:
>>>>>>
>>>>>
>>>>>>
>>>>>> I don't remember who was all in it, but one guy kept dropping the
>>>>>> soldering iron on the ground in front of people, then he'd bend
>>>>>> over slowly to pick it up again like he was hoping someone might
>>>>>> give him a poke. Disgusting.
>>>>>>
>>>>> how is any that the ARRL's fault
>>>>
>>>>
>>>> ARRL threw principle out the window when they caved in to the demands
>>>> of the Lambda Amateur Radio Club (LARC). It was a sad day for me
>>>> indeed when I opened my beloved QST magazine and there on the pages
>>>> were photos of queers on a Tropical DXpedition, and in living color
>>>> no less. The ARRL wanted us to embrace a sick perverted lifestyle
>>>> and be one big happy family. To me, it was the spark that signaled
>>>> the death of a once proud organization, and it turned liberal.
>>>>
>>>>
>>>> SC
>>>
>>> What I don't get is why we are forced to see
>>> homosexuality in areas that have nothing to do with sex, such as the
>>> example you mentioned.
>>

>>
>> Radical militant homosexuality coupled with uncontroled liberalism.
>>
>> sc
>
> What is sad is that in California they deny the Boy Scouts public park
> access, but it is OK for gays to have public sex in the same parks
> without fear of being arrested.

And ham radio, it was to send and receive phone and CW. Now we're
required to believe it acceptable to send and receive Blowjobs.

sc

2311. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 20:44:16 UTC
From: Slow Code <em@il.here>
Message-ID: <As69g.1636$y4.973@newsread2.news.pas.earthlink.net>
Source record: 59653
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Radio Buff <no.em@il.box> wrote in
news:4Fu8g.979$x4.338@newsread3.news.pas.earthlink.net:

> Cecil Moore <mycall@hotmail.com> wrote in
> news:M998g.84789$dW3.76743@newssvr21.news.prodigy.com:
>
>> Radio Buff wrote:
>>> It must be human nature, when you get something for nothing, you don't
>>> appreciate it as much, or try to take care of it the same as something
>>> you had to work for. That's why dumbing down ham tests is bad. Having
>>> a license doesn't mean anything.
>>
>> If we made getting a driver's license more difficult, would
>> people appreciate it more?
>
>
> Easier EE exams will produce better engineers?
>
> SC

Hee Hee Heeeeeee, I knew Cecil wouldn't answer.

sc

2312. Re: SEEMS LIKE SOME FOLKS DON'T LIKE HAM RADIO TOWERS.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 20:52:16 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1147467136.404456.247440@j33g2000cwa.googlegroups.com>
Source record: 59654

Some trees would help camouflage that thing. I'm all for putting up the antenna you're legally allowed to put up, but it's a shame that one has to anger the whole neighborhood because everyone basically ends up with an unobstructed view of your 4 element SteppIR even when the tower is retracted to 21 feet!

It's too bad you can't buy and transplant 30 foot trees!

That video makes me want even more to live in the country when I'm done in grad school. Fortunately, neither my YL nor I would want to live in a neighborhood where all the houses look exactly the same and there are no trees...

I wonder if he could camouflage that as a giant, whole backyard patio umbrella. 'Course that's probably not legal.

Dan
N3OX

2313. Re: 2 Meter Choke Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 20:57:02 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <n7adnW2y6Kv4avnZnZ2dnUVZ8s-dnZ2d@bt.com>
Source record: 59655

"Darrell Bellerive" <va7to@rac.ca> wrote in message
news:1147382432.043333.249780@v46g2000cwv.googlegroups.com...
> >From what I have read there seem to be two common types of choke
baluns
> employed at 146 MHz, the coiled coax balun and the W2DU type with
> ferrite beads over the coax. Looks like other types of baluns such
as
> the sleeve balun or a Guanella toroidal balun could also be used.
>
> Other than the obvious restrictions imposed by physical mounting
> arrangements, what are the advantages and disadvantages of each
type.
>
> There seems to be considerable variation in the design of coiled
coax
> baluns, with most designers advocating a few turns of coax with a
> diameter of 3 to 8 inches. One designer was convinced that anything
> over 3/4 of an inch would not be functional at VHF frequencies.
Others
> maintain that the coil of coax should be wound on a core keeping the
> turns aligned, while others simply coil the coax up and tape it
> together. Some recommend one coax width of air between turns.
>
> With regard to ferrite beads on the coax type of balun, how many
> ferrite beads of what type are most effective? Some advocate that
> another set of ferrite beads be placed at a point below the
feedpoint.
>
> Seems there is lots of latitude in construction of these types of
> baluns. Are they really this forgiving, or are there a lot of less
than
> full effective balun designs?
>
> I'm trying to decide what is the best option for me, and am confused
at
> all the variations.
>
> Darrell
> VA7TO
==========

A choke balun made from RG-58 coax cable, centred on 145 MHz and
having a high impedance over the 2 meter band has the following
dimensions -

6 turns of RG-58
Length = 30 mm = 1.2"
Diameter = 37.5 mm = 1.5"

Measurements are between centers of turns.

Make it neatly.

Reg, G4FGQ

2314. Re: 2 Meter Choke Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 21:04:56 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1147467896.099797.301130@j33g2000cwa.googlegroups.com>
Source record: 59656

And for more impedance, put one every odd 1/4 wavelength... it's the macrame choke!

And then we'll start r.r.a.a. debating the effectiveness of overhand vs. sheet bend and....

2315. FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 21:23:34 UTC
From: Dave <noone@nowhere.com>
Message-ID: <C_6dncm4SIpDYfnZnZ2dneKdnZydnZ2d@crocker.com>
Source record: 59657

its raining, its going to rain all weekend, i already caught up my qsl card replies, what can i do for fun this weekend... I know, troll a fight on r.r.a.a! How about it you guys, you up for a return bout of lumps vs distributions? how about adding powers, that one hasn't come up recently?? maybe a quick argument over why kirchoff's current equation doesn't work with distributed systems?? Or could we drum up a good fight about fractal-quad-yagi efficiency, or how cfa's can't work the way they are claimed to? Come on, there must be a good one in there somewhere to get you guys stirred up for a weekend! Who wants to be the first one to tell me i can't use 75 ohm hardline without some fancy matching system?? Or why my SWR meter is no good when i do? Come on, just a little fight???

2316. Re: 2 Meter Choke Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 21:28:30 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1147469310.759460.76760@j33g2000cwa.googlegroups.com>
Source record: 59658

43 material ferrite beads are quite effective at VHF. I would (and do)
take this route at VHF because they're more compact than a coax choke,
and you don't need too many of them to get substantial choking
impedances.

I was pointed to this PDF (big) for impedance vs. frequency curves.

http://www.fair-rite.com/newfair/pdf/15th_Edition_Fair-Rite_Catalog.pdf#page=1

A 2643012702 bead of the sort that fits (most of the time!) over RG-58
has a typical 1 turn impedance of 38 ohms at 100MHz according to the
catalog. You can decide on an appropriate choking impedance and stack
beads in the number you need.

Don't worry about chokes further down the coax unless you're really
having feedline radiation problems. A choke at the feedpoint will take
care of RF current conducted onto the feedline. If you're getting
induced currents on the feedline, get it away from the antenna! It's
VHF! :-)

I'm using bead baluns on my 6m moxon, my 2m and 432m yagis... I might
not notice the difference without them, but I had a box of, I dunno,
800 of those 43 material beads lying around, so I'm using bead baluns
for everything.

I've hung around r.r.a.a. and read many posts about cracking at high
power if the choking impedance is low enough that more than a few watts
are being dissapated in the choke.

I've also read quite a bit about conducted RF from all the junk
electronics in everyone's house being kept OFF THE ANTENNA by an
effective common mode choke, and this is why I'm going to keep using
them whether I feel that I need a balun or not for antenna pattern.

Back when my very understanding parents let me bury all my feedlines
for 40 feet under the lawn to build my high-school antenna farm, I
didn't worry about choking off shield currents, but now that I'm in an
apartment, everything I can do to keep antenna and noise separated is
going to get done.

73,
Dan
N3OX
www.n3ox.net

2317. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 21:35:28 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1147469728.147827.281590@y43g2000cwc.googlegroups.com>
Source record: 59659

SWR METERS ONLY INDICATE FORWARD CW POWER AND REVERSE CB JARGON INTO
THE CROSSED-FIELD FRAKTAL YAGI IF THE IMPEDANCE OF THE SLOW-WAVE
LOADING COIL TRANSMISSION LINE IS EXACTLY 49.0003000+j3.50003000 OHMS
PLUS OR MINUS 39%!

73,
Dan
N3OX

2318. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 21:40:29 UTC
From: Dave <noone@nowhere.com>
Message-ID: <GJidnXXBUI5JnfjZRVn-qg@crocker.com>
Source record: 59660

ALL RIGHT! thats the kind of assertion that should stir things up. I like the 'slow-wave' part, thats a good one... maybe we should compare it to one of those faster than light antennas in the patent archives and see if we can get something going?

<n3ox.dan@gmail.com> wrote in message
news:1147469728.147827.281590@y43g2000cwc.googlegroups.com...
> SWR METERS ONLY INDICATE FORWARD CW POWER AND REVERSE CB JARGON INTO
> THE CROSSED-FIELD FRAKTAL YAGI IF THE IMPEDANCE OF THE SLOW-WAVE
> LOADING COIL TRANSMISSION LINE IS EXACTLY 49.0003000+j3.50003000 OHMS
> PLUS OR MINUS 39%!
>
> 73,
> Dan
> N3OX
>

2319. Re: I got me a signal report of nine pounds on 20 meters, but then the Op corrected himself.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 21:43:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9k79g.25356$4L1.20921@newssvr11.news.prodigy.com>
Source record: 59661
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Slow Code wrote:
> Radio Buff <no.em@il.box> wrote

>>Cecil Moore <mycall@hotmail.com> wrote:
>>>If we made getting a driver's license more difficult, would
>>>people appreciate it more?
>>
>>Easier EE exams will produce better engineers?
>
> Hee Hee Heeeeeee, I knew Cecil wouldn't answer.

I didn't answer because he: 1. chose to change the subject and
2. refused to answer my question. So he didn't deserve an answer.

I wouldn't appreciate my EE degree any more if it had been harder
to obtain. I just might not have obtained it. But that is an
irrelevant diversion thus no answer from me.

If the goal is "better" amateur radio operators, let's make
obtaining a license so difficult that only two people can
obtain it.
--
73, Cecil http://www.qsl.net/w5dxp

2320. Re: 2 Meter Choke Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 21:44:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <rl79g.25357$4L1.9390@newssvr11.news.prodigy.com>
Source record: 59662

n3ox.dan@gmail.com wrote:

> And for more impedance, put one every odd 1/4 wavelength... it's the
> macrame choke!

Is that anything like macrame headaches?
--
73, Cecil http://www.qsl.net/w5dxp

2321. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 21:47:29 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <xOadnQxng6ryn_jZnZ2dnUVZ_tqdnZ2d@comcast.com>
Source record: 59663
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

an old friend wrote:
> Dr.Death wrote:
>
>>"Noon-Air" <Noon-Air@comcast.net> wrote in message
>>news:zsednQItNOzyhPzZnZ2dnUVZ_tCdnZ2d@comcast.com...
>>
>
>>I guess you missed the part of the bible dealing with Sodom and Gomorra
>>being leveled because of deviant sex.
>
>
> it looks like you missed the facts fot he case Sodom and Gomora were
> leveled for the ciolations of the law of hospitality
>
> learn to read Dr

That's not my reading. Violating the law of hospitality. Where in the
Torah is that law specifically cited?

Homosexual sex is defines as SODOMY in Western Law.

2322. Re: TX to Antenna cable length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 21:50:04 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <xOadnQ9ng6qXnvjZnZ2dnUVZ_tqdnZ2d@comcast.com>
Source record: 59664

First, at 100 watts do you have a license?

MRW wrote:

> Hi everybody! I want to mount a dipole FM antenna on top of a three
> story building. My transmitter will be located in a room in the bottom
> floor. Has anyone have experience in this?
>
> I know that I will get some signal attenuation with that long of a
> coaxial cable (100 meters). If my cable has a characteristic impedance
> of 50 ohms (matching the output impedance of the transmitter), will it
> adversely affect my transmission?
>
> I was reading my electromagnetics book and it mentions that depending
> on transmission line length the cable might look like an inductor or
> capacitor.
>
> What other factors should I take into account my calculations for the
> effect of the cable length on the system?
>
> My current setup includes a 100w low power fm transmitter being fed by
> a computer running some school audio programs. Thnx!
>

2323. Re: Elimination of CW is the only way we can make it fair

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 22:15:34 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <aO79g.3677$u4.1277@newsread1.news.pas.earthlink.net>
Source record: 59665
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

<Dan Richardson> wrote in message
news:o50s521r1ne35hendphsijoa8fjcaf7l5b@4ax.com...
> On Sun, 07 May 2006 06:20:02 -0700, Bill Turner <dezrat@copper.net>
> wrote:
>
>>Complete nonsense. CW testing is being phased out because CW is
>>becoming obsolete, period. Don't try to read anything more into it
>>than that.
>>
>>With all the great new digital modes available - most of which are far
>>superior to CW - forcing people to waste valuable hours learning an
>>obsolete mode is sheer folly. There are so many great things to do
>>with Amateur Radio. Do them!
>
> Quite correct Bill. Commercial and military have dropped Morse code
> for the very reasons you stated.
>
> In this day and age, requiring proficiency in Morse code for a radio
> license would be as requiring proficiency in horse husbandry in order
> to get a driver's license.
>
> Danny, K6MHE
>
>
>
>
>
> In my many years I have come to a conclusion that one
> useless man is a shame, two is a law firm, and three
> or more is a congress. - John Adams
>
> email: k6mhe<at>arrl<dot>net
> http://www.k6mhe.com/

I'll keep that in mind while I'm enjoying a CW contest at 40 plus a minute.

Dan/W4NTI

2324. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 22:16:48 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <kP79g.3678$u4.2445@newsread1.news.pas.earthlink.net>
Source record: 59666
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"Dee Flint" <deeflint01@comcast.net> wrote in message
news:brWdnQ3vJ8DFicDZnZ2dnUVZ_u-dnZ2d@comcast.com...
>
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:tb77g.11986$Lm5.649@newssvr12.news.prodigy.com...
>> jawod wrote:
>>> I don't think it is as effectice on SSB. Of course, you can use the
>>> symbols that were derived from CW (like QTH) but I think morse code is a
>>> more direct communication in these circumstances because it doesn't
>>> involve voice/pronunciation differences between languages. The symbols
>>> are universal and immediately understood.
>>
>> Well then use PACTOR II with those symbols. PACTOR II will
>> get through when CW fails.
>> --
>
> Any rational evaluation of the modes available will show that there is a
> combination of circumstances that make a specific mode the one that will
> "get through". One can "prove" that their favorite mode is the one that
> will get through under certain conditions.
>
> Dee D. Flint, N8UZE
>

As my old timer buddy used to say " It takes two things to communicate, an
OPERATOR at both ends"

Dan/W4NTI
```

2325. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 22:18:07 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <zQ79g.3680$u4.2038@newsread1.news.pas.earthlink.net>
Source record: 59667
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Rga7g.73552$H71.45000@newssvr13.news.prodigy.com...
> Dee Flint wrote:
>> Any rational evaluation of the modes available will show that there is a
>> combination of circumstances that make a specific mode the one that will
>> "get through". One can "prove" that their favorite mode is the one that
>> will get through under certain conditions.
>
> I have seen PACTOR II get through from Europe with 10 watts
> when there was no humanly detectable signal. All I did was
> choose the correct frequency and time based on a schedule.
> I detected absolutely no carrier on the S-meter or with
> my ears in CW mode. The PACTOR II signal was literally
> down in the noise but my SCS PTC-IIe somehow managed
> to dig it out.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Lots of operator skill there, eh Cecil?

Let them thar machines do it. Gives us more time to watch TV and improve
our watching techniques.

Yeah buddy.

Dan/W4NTI

2326. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 22:24:24 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <sW79g.3681$u4.3229@newsread1.news.pas.earthlink.net>
Source record: 59668
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1147047627.949564.83230@y43g2000cwc.googlegroups.com...
>
> Dave wrote:
>> Silent Key wrote:
>>
>> > What's the purpose of ham radio, To have fun talking about rigs and
>> > weather, or to be able to communicate?
>> >
>> >SNIPPED
> the activity.
>>
>> It is NOT to open a box, plug it in, connect a wire, and, when it
>> doesn't work, get on the internet and ask for help.
>>
>> I advocate for a code test for the following reason. I value what I have
>> to plan for, work for, sacrifice for, and invest my time for.
>>
>> I value the reward for 18 months of practicing Morse Code every night
>> for one hour a night. That's an investment.
> i just wanta return on my 5 years investment I have nothing to show
> for it
>

Now that does not surprise me one bit.

Have a good life loser.

Dan/W4NTI

2327. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 23:26:10 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97C1A731DD9B4doldridgsprintca@64.59.135.159>
Source record: 59669

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in
news:WKSdnXeTJ8mGAfnZRVnygg@bt.com:

>
> "Dave Oldridge" <doldridg@leavethisoutshaw.ca> wrote in message
> news:Xns97C118FCD5DAAdoldridgsprintca@64.59.135.159...
>> "Lee" <lo012a4519@blueyonder.co.uk> wrote in
>> news:naX8g.272123$8Q3.113664@fe1.news.blueyonder.co.uk:
>>
>> > Is there any optimum height for a 3ft dia magloop, or is it
> dependent
>> > on frequency??.
>> >
>> > I have mine planted in the lawn with the top about 6ft from the
> ground
>> > (on a rotator!)
>> > and was curious whether to work it against ground or put it at the
> top
>> > of the tower,
>> > or have i completely lost the plot???, Heh heh........
>> >
>> > Surprising how cheaply a magloop can be built for and after 12
> months
>> > it still works well!!.
>>
>> What band is yours on? I have a 55-inch diameter coax loop that I'm
> using
>> on 75, but I'm seriously thinking of working up a multiband design
> in soft-
>> drawn 3/4" copper pipe. It would be six feet in diameter (mainly
> due to
>> space considerations).
>>
>> Dave Oldridge+
>> ICQ 1800667
> ==
> Dave,
>
> Magloops with copper pipes are the most efficient of all small
> antennas.
>
> They should be rotateable through about 45 degrees.
>
> Changing from coax loop to 3/4" or 1" copper pipe loop will be a

> considerable improvement on both transmit and receive. Especially if
> it is not too low above ground and is not in a cluttered environment.
> The idea is to keep ground loss less than conductor loss.

Actually, considering the costs, I'm thinking perhaps just 1/2 inch pipe.
I did some modelling and the difference between 1/2 inch and 2 inch pipe
is really only 6db and I can get nice flexible 1/2 inch pipe.

> For multi-band operation you will be best with a motor-driven vaccuum
> tuning capacitor. With a 1000pF capacitor and a small loop the 160, 80
> and 40m bands can be covered. It depends on the minimum capacitor
> setting and loop perimeter.

I'm thinking more on the lines of switching capacitors in and out. I
also don't care if the feedpoint SWR goes up fairly high, as long as my
tuner can flatten it. I can make some pretty good fixed capacitors from
heliax.

> There is no noticeable difference between aluminium alloy and copper
> pipe. Aluminium alloy is lighter in weight and stands up to the
> weather better but is more difficult to bend.

> A square loop is not noticeably worse in performance than a circular
> loop and may be easier to construct.

This is true given equal areas.

> Download program MAGLOOP4 from my website. It may provide food for
> thought.

I have it, thanks. I also have a spreadsheet that I made up that does
all the calculations for copper loops.

--
Dave Oldridge+
ICQ 1800667

2328. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 23:28:16 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97C1A78D2A41Fdoldridgsprintca@64.59.135.159>
Source record: 59670

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in
news:wcOdneEHs_keP_nZRVny1w@bt.com:

> Error correction :
>
> They need be rotateable only through about 90 (ninety) degrees.
>
> This is to ensure an antenna can always be directed towards maximum
> signal even when there are 3 or 4 plastic guy ropes from the top of
> the loop which can prevent a complete rotation

Rotation is probably not an option here as it has to sit on an apartment balcony. There will be some ground clutter, too, from the balcony railing. But that may not be as debilitating as it looks because the whole business is 10m up and any currents in the aluminum balcony railing tend to add to the radiation, though the pattern can become moot.

--
Dave Oldridge+
ICQ 1800667

2329. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-12 23:33:07 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97C1A85F8ECC6doldridgsprintca@64.59.135.159>
Source record: 59671

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in news:aIedndTX8o--UfnZRVny2A@bt.com:

>> Does it matter if the remotely tuned capacitor is at the top or the
> bottom
>> of the loop?
>>
> ==
> In principle, it doesn't matter.
>
> But it is important the capacitor is located diametrically opposite to
> whatever arrangements there are to feed the loop.

I have not found this to matter. And I think MFJ's commercial loop tuners all work at the feedpoint. The trick is in getting a good coupling to the loop. If you do that, the placement of the capacitor is probably irrelevant, since the loop is, after all, just a circle with current in it.

> Ideally the loop should, as far as possible, be isolated and be
> allowed to find its own electric balance with respect to ground.

Yep.

> The capacitor itself is likely to be unbalanced with respect to
> ground. So it it is better to place it as far as possible from the
> ground and everthing else, i.e., at the top. The highest voltages are
> concentrated at the ends of the loop connected to the capacitor.

> It is best NOT to connect the main loop to the feedline. Use a small
> coupling loop in the same plane as the main loop and about 1/5 of the
> diameter if the coax is 50-ohms. For 75-ohm coax it is about 1/4 of
> the diameter.

I'm using a different arrangement here. I'm connecting the center conductor of the feedline to one side of the loop and using a small capacitor (gimmick actually) to couple the coax shield to the other side, with the capacitor (essentially it's the inner conductor against the shield) being across the break at the feedpoint. Darn thing works, though.

> Isolating the main loop from the coupling loop and feedline prevents
> RF current from finding its way on to the feedline.

Then again, this may be a feature, not a bug!

--
Dave Oldridge+
ICQ 1800667

2330. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 01:16:21 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <go-dnchy9tj-rvjZnZ2dnUVZ_tudnZ2d@adelphia.com>
Source record: 59672

Dave wrote:
> ALL RIGHT! thats the kind of assertion that should stir things up. I like
> the 'slow-wave' part, thats a good one... maybe we should compare it to one
> of those faster than light antennas in the patent archives and see if we can
> get something going?

How about a loss of de-Corum..... ;^)

Sorry Cecil, I'm a sucker for a bad pun!

- 73 de Mike KB3EIA -

2331. Re: SEEMS LIKE SOME FOLKS DON'T LIKE HAM RADIO TOWERS.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 01:25:41 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <hKSdnUoQ2eEIqPjZRVn-iw@adelphia.com>
Source record: 59673

n3ox.dan@gmail.com wrote:
> Some trees would help camouflage that thing. I'm all for putting up
> the antenna you're legally allowed to put up, but it's a shame that one
> has to anger the whole neighborhood because everyone basically ends up
> with an unobstructed view of your 4 element SteppIR even when the tower
> is retracted to 21 feet!
>
> It's too bad you can't buy and transplant 30 foot trees!
>
> That video makes me want even more to live in the country when I'm done
> in grad school. Fortunately, neither my YL nor I would want to live in
> a neighborhood where all the houses look exactly the same and there are
> no trees...
>
> I wonder if he could camouflage that as a giant, whole backyard patio
> umbrella. 'Course that's probably not legal.

Speaking of "monstrosities and eyesores, those neighbors bitching about
the antennas aren't that much fun to look at. Ban them while they are at it.

- Mike -

2332. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 01:37:49 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1147484269.470149.322240@d71g2000cwd.googlegroups.com>
Source record: 59674
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

AOF - Hospitality ? { Bible ? }
Welcome Brother and Bend-Over Brother are not the same [.]
Put that in your Sodom and Blow it out your Gomora ~ RHF
.
.
. .

2333. Re: TX to Antenna cable length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 01:55:29 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <126af3kibhk17eb@corp.supernews.com>
Source record: 59675

Dear MRW:

The university where I teach licensed a 100 watt FM station last year. The transmitter was placed near the base of the tower that supported the transmitter's antenna.

The studio was some 1000 feet away from the transmitter. A cable containing multiple shielded pairs was run from the transmitter to the studio. Every low power FM broadcast transmitter that I looked at had provisions to make easy remote control.

My suggestion is to mount the transmitter near the antenna and run control cables down to the studio. A short run of coax is likely to have acceptably low loss.

Good luck. 73 Mac

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

2334. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 02:18:33 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <Zlb9g.14874$QP4.12792@fed1read12>
Source record: 59576

"Dave" <noone@nowhere.com> wrote in message
news:C_6dncm4SIpDYfnZnZ2dneKdnZydnZ2d@crocker.com...
> its raining, its going to rain all weekend, i already caught up my qsl
card
> replies, what can i do for fun this weekend... I know, troll a fight on
> r.r.a.a! How about it you guys, you up for a return bout of lumps vs
> distributions? how about adding powers, that one hasn't come up
recently??
> maybe a quick argument over why kirchoff's current equation doesn't work
> with distributed systems?? Or could we drum up a good fight about
> fractal-quad-yagi efficiency, or how cfa's can't work the way they are
> claimed to? Come on, there must be a good one in there somewhere to get
you
> guys stirred up for a weekend! Who wants to be the first one to tell me i
> can't use 75 ohm hardline without some fancy matching system?? Or why my
> SWR meter is no good when i do? Come on, just a little fight???
>
>

Weekend fight promotion follows:

If a chicken-and-a-half can lay and egg-and-a-half in a day-and-a-half, how
long
would it take one regular chicken to lay a dozen eggs?

Most-favorable consideration will be given to answers submitted with a valid
Paypal account number and password. It need not be your own.

Email answers to samuel.wachsal@webmail.imclone.com

(There, that should about do it.)

2335. Re: electromagnetic compatibility trainings/workshops

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 02:26:40 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <Btb9g.14875$QP4.9035@fed1read12>
Source record: 59577

"electro" <electromagnetic377@yahoo.com> wrote in message
news:1147329919.236111.251560@q12g2000cwa.googlegroups.com...
> anyone who knows of a company that accepts emc training in design and
> test measurement in their lab houses?
>

Say it again more clearly, pls.

"Sal"
NARTE Certified EMC Engineer (retired)

2336. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 03:17:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ndc9g.5234$fb2.3156@newssvr27.news.prodigy.net>
Source record: 59578

Mike Coslo wrote:
> How about a loss of de-Corum..... ;^)
> Sorry Cecil, I'm a sucker for a bad pun!

I'm not sure K1AON and KB1EUD would appreciate
your pun.
--
73, Cecil http://www.qsl.net/w5dxp

2337. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 04:27:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <trna62hc0c8qe20ob0pctjott8s542fkt1@4ax.com>
Source record: 59579

On Fri, 12 May 2006 23:26:10 GMT, Dave Oldridge
<doldridg@leavethisoutshaw.ca> wrote:

>I did some modelling and the difference between 1/2 inch and 2 inch pipe
>is really only 6db and I can get nice flexible 1/2 inch pipe.

Hi Dave,

Only 6dB, hmmm? Considering the following:

>I'm thinking more on the lines of switching capacitors in and out.

the switch contact resistance will probably swamp out any perceived
efficiency gain achieved by added pipe diameter. You may be lucky and
have them fuse themselves closed - luck could run the other way and
they fuse open.

73's
Richard Clark, KB7QHC

2338. Re: balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 04:35:28 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060513005318.407$ON@newsreader.com>
Source record: 59580
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

jawod <jawod@fuse.net> wrote:
> Steveo wrote:
> > "John S." <hjsjms@cs.com> wrote:
> >
> >>I could blame Stefan Balme for opening the jar of balm so quickly that
> >>it went blam after he landed at El Bamel airport, but Mr. Balme would
> >>probably not want someone to balme (or embalme) him.
> >>
> >>(try spel chek)
> >>
> >>
> >
> > With a Pair of heavy-duty
> > Zircon-encrusted tweezers in my hand
> > Every other wrangler would say
> > I was mighty grand
> >
> > By myself I wouldn't
> > Have no boss
> >
> > But I'd be raisin' my lonely Dental Floss ($1 F Zappa)
>
> Yippie-ay-yo-ti-yaaaa
>
Goin' to Montana!

2339. Re: Magloop Height?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 05:16:42 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <i7qa62hmdfms3dm7ci4mu3dr57u0m2u7ta@4ax.com>
Source record: 59581

On Fri, 12 May 2006 21:27:35 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Fri, 12 May 2006 23:26:10 GMT, Dave Oldridge
><doldridg@leavethisoutshaw.ca> wrote:
>
>>I did some modelling and the difference between 1/2 inch and 2 inch pipe
>>is really only 6db and I can get nice flexible 1/2 inch pipe.
>
>Hi Dave,
>
>Only 6dB, hmmm? Considering the following:
>
>>I'm thinking more on the lines of switching capacitors in and out.
>
>the switch contact resistance will probably swamp out any perceived
>efficiency gain achieved by added pipe diameter. You may be lucky and
>have them fuse themselves closed - luck could run the other way and
>they fuse open.

Even if they don't fuse (gee Richard, its only ~100A RMS loop current
at 10W EIRP (assuming Rr of about 0.001 ohms)... but it will be hard
to achieve such high EIRP), it is some more loss resistance to drive
efficiency even lower.

I wondered about the effectiveness of the switching arrangement given
the very narrow bandwidth of the antenna, it might take a hundred
discrete tuning combinations to effectively cover the 80m / 75m band.

Owen
--

2340. Re: balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 05:44:27 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060513020218.084$WN@newsreader.com>
Source record: 59583
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dudley" <Shooter@nowhere.up> wrote:
> "Steveo" <moparholic@hotmail.com> wrote in message
> news:20060513005318.407$ON@newsreader.com...
> jawod <jawod@fuse.net> wrote:
> > Steveo wrote:
> > > "John S." <hjsjms@cs.com> wrote:
> > >
> > >>I could blame Stefan Balme for opening the jar of balm so quickly
> > >>that it went blam after he landed at El Bamel airport, but Mr. Balme
> > >>would probably not want someone to balme (or embalme) him.
> > >>
> > >>(try spel chek)
> > >>
> > >>
> > >
> > > With a Pair of heavy-duty
> > > Zircon-encrusted tweezers in my hand
> > > Every other wrangler would say
> > > I was mighty grand
> > >
> > > By myself I wouldn't
> > > Have no boss
> > >
> > > But I'd be raisin' my lonely Dental Floss ($1 F Zappa)
> >
> > Yippie-ay-yo-ti-yaaaa
> >
> Goin' to Montana!
>
> Gonna raise me up some dental floss...
>
And then I'd Get a cuppa cawfee

N' give my foot a push...

Just me 'n the pymgy pony
Over the Dennil Floss Bush

2341. Re: balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 05:52:03 UTC
From: Dudley <Shooter@nowhere.up>
Message-ID: <e43s63$e9p$0@pita.alt.net>
Source record: 59582
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060513005318.407$ON@newsreader.com...
jawod <jawod@fuse.net> wrote:
> Steveo wrote:
> > "John S." <hjsjms@cs.com> wrote:
> >
> >>I could blame Stefan Balme for opening the jar of balm so quickly that
> >>it went blam after he landed at El Bamel airport, but Mr. Balme would
> >>probably not want someone to balme (or embalme) him.
> >>
> >>(try spel chek)
> >>
> >>
> >
> > With a Pair of heavy-duty
> > Zircon-encrusted tweezers in my hand
> > Every other wrangler would say
> > I was mighty grand
> >
> > By myself I wouldn't
> > Have no boss
> >
> > But I'd be raisin' my lonely Dental Floss ($1 F Zappa)
>
> Yippie-ay-yo-ti-yaaaa
>
Goin' to Montana!

Gonna raise me up some dental floss...

2342. Re: balme the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 07:59:47 UTC
From: Lloyd II <CurtainsBoy@Glendale.uz>
Message-ID: <e443lj$a3j$0@pita.alt.net>
Source record: 59584
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Dudley" <Shooter@nowhere.up> wrote in message
news:e43s63$e9p$0@pita.alt.net...

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060513005318.407$ON@newsreader.com...
jawod <jawod@fuse.net> wrote:
> Steveo wrote:
> > "John S." <hjsjms@cs.com> wrote:
> >
> >>I could blame Stefan Balme for opening the jar of balm so quickly that
> >>it went blam after he landed at El Bamel airport, but Mr. Balme would
> >>probably not want someone to balme (or embalme) him.
> >>
> >>(try spel chek)
> >>
> >>
> >
> > With a Pair of heavy-duty
> > Zircon-encrusted tweezers in my hand
> > Every other wrangler would say
> > I was mighty grand
> >
> > By myself I wouldn't
> > Have no boss
> >
> > But I'd be raisin' my lonely Dental Floss ($1 F Zappa)
>
> Yippie-ay-yo-ti-yaaaa
>
Goin' to Montana!

Gonna raise me up some dental floss...

>
"Just me and my Pygmy pony..."

2343. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 09:07:42 UTC
From: Terry Steer <terry.steer@btinternet.com>
Message-ID: <kbydne3XbsdFPPjZRVnygw@bt.com>
Source record: 59585
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Radio Buff" <em@il.here> wrote in message
news:us69g.1632$y4.1107@newsread2.news.pas.earthlink.net...
> "Galen, W8LNA" <w8lna@arrl.net> wrote in
> news:shv8g.488$oa1.132@news02.roc.ny:
>
>> Radio Buff wrote:
>>>
>>> As ham radio test standards have lowered over the years, I've noted a
>>> marked increase in the amount of obscenity, profanity, and indecency.
>>>
>>> RB
>>
>> At the same time the price of gasoline has gone up, the minimum wage has
>> gone up, the stock market has gone up but in just about all areas of
>> society mutual respect and courtesy have gone down.
>>
>> I think it has very little if anything at all to do with Morse code.
>>
>> W8LNA
>
>
>
> And I've never heard a couple ops insult or cuss each other out in CW
> either.

> sc

How about: ZBK2 I am receiving your traffic garbled
ZBM2 Place a competent operator on this circuit

2344. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 11:19:57 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1147519196.961541.158400@j73g2000cwa.googlegroups.com>
Source record: 59586

There's a good fight brewing in QEX magazine land. Eric, K8LV, wrote a pretty good article on directional wattmeters. But he spent a lot of space asserting that the notion of forward and reflected power in a transmission line is merely for intuitive convenience, isn't real, and should be abandoned in favor of unidirectional power flow and lumped analysis at a single point.

Whoo Hoo. The letters will be fun. Especially if Eric attempts to extend his assertion to a case not-as-special, such as not-steady-state or a point in 3D space.

Too bad it wasn't here. Bet we'd get a couple dozen posts before the weekend's out. Anyone want to take Eric's side?

73,
Glenn AC7ZN

2345. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 14:26:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <L0m9g.70320$_S7.69287@newssvr14.news.prodigy.com>
Source record: 59587

glenn.b.dixon@gmail.com wrote:
> There's a good fight brewing in QEX magazine land. Eric, K8LV, wrote a
> pretty good article on directional wattmeters. But he spent a lot of
> space asserting that the notion of forward and reflected power in a
> transmission line is merely for intuitive convenience, isn't real, and
> should be abandoned in favor of unidirectional power flow and lumped
> analysis at a single point.

K8LV is like the person who is satisfied with the Sun God riding
his chariot across the sky every day as a model of reality. He seems
to believe in a Standing Wave God who wills standing waves into
existence without the necessity for a forward traveling wave and
a rearward traveling wave to exist. It reminds me of what Einstein
said about models of reality needing to be simple, but not too simple.

Over the years, I have challenged anyone on this newsgroup to create
a standing wave in a single source system without having the existence
of a forward wave and a reflected wave. Nobody has furnished any proof
that standing waves are possible in a single source system without the
existence of forward and reflected waves.

Reflected energy is readily apparent using a time domain reflectometer.
Reflected power is easily detected and dissipated using a signal
generator with a circulator and load. A bit of modulation proves that
the reflected wave has made a round trip to the mismatched load and
back to the circulator load.

With the following example, I have shown that, during steady-state,
there are 300 joules of energy in the transmission line that have
not yet reached the load.

100W---one second long 50 ohm lossless feedline---291.5 ohms
Pfor=200W--> <--Pref=100W

There are no impedance discontinuities between the source and the
load and EM energy travels at the speed of light. The 300 joules
cannot exist anywhere except in the forward and reflected waves.
Without the existence of forward and reflected waves, there is
nothing to support standing waves. That the energy moving in each
direction is difficult to separate is no reason to assert that it
doesn't exist. According to the IEEE definition of power, the
potential for doing work is power. The 300 joules stored in the
above transmission line have the potential for doing work after
the source is powered down. That the work actually performed is
not useful work is irrelevant.

Anyone who doubts the existence of reflected energy should do a
second by second analysis of the above example starting at power
up. The technical facts become undeniable after a few seconds.

> Whoo Hoo. The letters will be fun. Especially if Eric attempts to
> extend his assertion to a case not-as-special, such as not-steady-state
> or a point in 3D space.
>
> Too bad it wasn't here. Bet we'd get a couple dozen posts before the
> weekend's out. Anyone want to take Eric's side?

K8LV even contradicts himself in his own article. He says the Z0 of
the line "literally forces all power flow to occur in 50-ohm waves
on the line". In the above example, those 300 joules per second are
necessarily flowing in the one second long line since they cannot
stand still. Where are they if, as K8LV asserts, the Z0 of the line
is forcing a V/I ratio of 50 ohms? They can exist in only one place,
in the 200W forward wave and 100W reflected wave each of which forces
a V/I ratio of 50 ohms, just as K8LV asserts.

Exactly the same thing happens when standing EM waves of light are
formed in free space. Let's see K8LV explain that one without the
existence of forward traveling light waves and rearward traveling
light waves. How do these quotes agree with standing waves of light?

"... the forward and reverse waves do not exist separately ..."

I think I can hear a multitude of physicists laughing at the assertion
that standing waves of light do not require the separate existence of
forward and reverse waves. QEX was interested in publishing an article
of mine with light wave examples until they realized the implications
of those technical facts.

This is just one more example of the dumbing down of amateur radio
accompanying the dumbing down of the US educational system in
general. Unfortunately, it seems to be a trend that cannot be
reversed because it is the biased view being pushed by the ARRL
and its supporters.
--
73, Cecil http://www.qsl.net/w5dxp

2346. Re: SEEMS LIKE SOME FOLKS DON'T LIKE HAM RADIO TOWERS.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 15:11:34 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <tntb625rnu12vigqsk4akqik0ftitvegqo@4ax.com>
Source record: 59588

ORIGINAL MESSAGE:

On Fri, 12 May 2006 16:33:03 -0400, JJ <jamesevns75@hotmail.com>
wrote:

>Seems some Seems some folks don't like ham radio towers.

********** REPLY SEPARATOR **********

Even more people don't like crossposters.

Bill, W6WRT

2347. Antenna cables in metallic conduit?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 15:12:14 UTC
From: shoppa@trailing-edge.com
Message-ID: <1147533134.463541.318940@g10g2000cwb.googlegroups.com>
Source record: 59589

Is there any advantage or disadvantage to running my antenna cables (mostly RG-8 and some RG-58 and Twinax for loops) in metallic electrical conduit, probably 1/2" EMT?

The shack is in the basement and various antennas come in through the roof/attic, three stories up. Currently the antenna cables drop down a fairly clear hole shared with some vent pipes and Ethernet (CAT-5) and phone wires.

I have some 1/2" EMT with the tools and some experience bending/installing it.

I do observe some RFI between computers etc. throughout the house and the ham/SW antennas. Would putting either the coax or the CAT-5 or both (separate conduit) help any?

I'm guessing the antenna and ethernet conduits, if I do it, should be bonded to the household ground near the electrical panel etc. for safety. Am I likely to get any grief from the electrical inspectors by using metallic conduit for running non-AC cables, or for bonding it to the same grounds? To me it's a no-brainer that a common ground would increase safety but in past electrical inspections they've given me some minor grief for the antenna cables which were well-grounded near the entrance panel. They pointed to a really really crappy CATV installation and said that I had to do it that way.

Tim.

2348. Re: Elimination of CW is the only way we can make it fair

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 15:14:30 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <lrtb62p27nc52faq2ac92550c69hglr2j6@4ax.com>
Source record: 59590
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

ORIGINAL MESSAGE:

On Fri, 12 May 2006 22:15:34 GMT, "Dan/W4NTI"
<w4nti@mindNOSPAMATALLspring.com> wrote:

>I'll keep that in mind while I'm enjoying a CW contest at 40 plus a minute.
>
>Dan/W4NTI
>

********** REPLY SEPARATOR **********

Some people enjoy making horse shoes the old way on an anvil. Should
that be a required skill for getting a driver's license?

Bill, W6WRT

2349. Re: Antenna cables in metallic conduit?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 15:57:02 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <iln9g.1973$y4.1340@newsread2.news.pas.earthlink.net>
Source record: 59591

<shoppa@trailing-edge.com> wrote in message
news:1147533134.463541.318940@g10g2000cwb.googlegroups.com...
> Is there any advantage or disadvantage to running my antenna cables
> (mostly RG-8 and some RG-58 and Twinax for loops) in metallic
> electrical conduit, probably 1/2" EMT?
>
> The shack is in the basement and various antennas come in through the
> roof/attic, three stories up. Currently the antenna cables drop down a
> fairly clear hole shared with some vent pipes and Ethernet (CAT-5) and
> phone wires.
>

There are no RF disadvantages of running the coax in a metallic conduit.
YOu may get some shielding and also some lightning protection if the conduit
is grounded, but it is doubtful it would really be noticed if good quality
cable is used. YOu just can not run unshielded twin lead or ballanced line
in the conduit.

2350. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 16:02:41 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Bqn9g.93217$eR6.27874@bgtnsc04-news.ops.worldnet.att.net>
Source record: 59592

Cecil Moore wrote:
> >
> Over the years, I have challenged anyone on this newsgroup to create
> a standing wave in a single source system without having the existence
> of a forward wave and a reflected wave. Nobody has furnished any proof
> that standing waves are possible in a single source system without the
> existence of forward and reflected waves.

Cecil,

Why would anyone try to prove that the basic math of adding sinusoidal functions is incorrect? To the contrary, you are the one who insists that a standing wave and its constituent traveling wave components are somehow different and unique. No one denies the simultaneous existence of standing waves and traveling waves.

Isn't superposition wonderful!

73,
Gene
W4SZ

2351. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 16:29:09 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pPn9g.26592$4L1.21499@newssvr11.news.prodigy.com>
Source record: 59593

Gene Fuller wrote:
> Why would anyone try to prove that the basic math of adding sinusoidal
> functions is incorrect? To the contrary, you are the one who insists
> that a standing wave and its constituent traveling wave components are
> somehow different and unique.

Actually, it was you who made that assertion and thanks for the
opportunity to quote you once again:

Gene Fuller, W4SZ wrote:
> In a standing wave antenna problem, such as the one you describe,
> there is no remaining phase information. Any specific phase
> characteristics of the traveling waves died out when the startup
> transients died out.

So standing waves are "somehow different" from traveling waves
according to your own assertions. The traveling wave possesses
phase characteristics and the standing wave doesn't.

> Phase is gone. Kaput. Vanished. Cannot be recovered. Never to be
> seen again.

So it was you who asserted that standing wave current is "somehow
different" from traveling wave current and I agree with you. It's
obvious they are "somehow different" because they have different
mathematical equations. Have you changed your mind since your
above quoted posting?

> No one denies the simultaneous existence
> of standing waves and traveling waves.

Of course they do, Gene, that is the whole point. Here is a quote
from K8LV's article:

"I wish to emphasize the fact that the forward and reverse
waves really do not exist separately ..."

That certainly *denies* the separate existence of the underlying
traveling waves so your above assertion is false. I believe that
W7EL also denies the separate existence of forward and reverse
waves and introduced the technical term, "sloshing", to explain
what happens to the energy in a transmission line with reflections.
--
73, Cecil http://www.qsl.net/w5dxp

2352. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 17:16:33 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1147540592.968474.141550@j73g2000cwa.googlegroups.com>
Source record: 59594

Cecil wrote:
>>>This is just one more example of the dumbing down of amateur radio
>accompanying the dumbing down of the US educational system in
>general. Unfortunately, it seems to be a trend that cannot be
>reversed because it is the biased view being pushed by the ARRL
>and its supporters.

Hmmm...not sure I agree that the folks at ARRL are deliberately being dumb (or maybe I just misunderstood you). Seems more unintentional to me. After all, the technical editor of QEX let publish that bizarre article that claimed to prove by math that phasing SSB receivers were not possible. Can''t imagine a political motivation for that though I have to wonder bigtime how that one got by. QEX really really needs for some good peer review.

Ah, to have Ham Radio magazine back again. Loved that thing. Learned most of my radio from it.

73,
Glenn AC7ZN

2353. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 17:23:13 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1147540992.970477.110980@v46g2000cwv.googlegroups.com>
Source record: 59595

Funny thing is that I'm down with the slow-wave loading coil thing.
Maxwell's equations are your friend... not a very nice friend when
Bessel functions are involved, but...

Faster than light, though? Maybe the phase velocity in some tricky
cryogenic world, but I dunno...

Haven't seen much on superconducting antennas here... I read a paper
once with a superconducting magloop but they forgot to make the
matching network superconducting too.

Let's get the "bizarre but REAL" antenna thread going.

Wouldn't you like to have a QRP CW rig with a 3" magloop for 20m on the
top? The thermos full of liquid nitrogen is kind of a pain to lug
around...

Anyone built a "genetically" designed ham antenna yet? Might be a good
way to go for the "I have 50 feet between two trees to put up an 80m
dipole" crowd.

Maybe we could develop a combined performance+aesthetics genetic
algorithm to design efficient shortened vertical dipoles that look like
nice pieces of modern art and have a nice low voltage section to run
the coax out... you run the electromagnetic algorithm, weed out the
weak designs, then you have your neighbor click the most attractive
five and throw the rest out, and repeat!

-Dan

2354. Re: 2 Meter Choke Baluns

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 17:27:07 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1147541227.293322.246940@y43g2000cwc.googlegroups.com>
Source record: 59596

If you put 100 FT-43 beads around your head, you're sure to get a migraine choke headache, I think.

It'll keep the conducted common mode RF off your torso though.

Still have to worry about the radiated.

2355. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 17:49:55 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <r%o9g.448$ld.324@fe10.lga>
Source record: 59597

<glenn.b.dixon@gmail.com> wrote in message
news:1147540592.968474.141550@j73g2000cwa.googlegroups.com...
> Cecil wrote:
>>>>This is just one more example of the dumbing down of amateur radio
>>accompanying the dumbing down of the US educational system in
>>general. Unfortunately, it seems to be a trend that cannot be
>>reversed because it is the biased view being pushed by the ARRL
>>and its supporters.
>
> Hmmm...not sure I agree that the folks at ARRL are deliberately being
> dumb (or maybe I just misunderstood you). Seems more unintentional to
> me. After all, the technical editor of QEX let publish that bizarre
> article that claimed to prove by math that phasing SSB receivers were
> not possible. Can''t imagine a political motivation for that though I
> have to wonder bigtime how that one got by. QEX really really needs
> for some good peer review.
>

I don't think anyone is trying to be "deliberately being dumb", more like
"naturally being dumb" and not knowing it. :-)
Reality is that quality of technical material in ham publications is
slipping, heading for stuck on stupid. Add cheapening of ham ticket exams,
push for mass and no exam recruiting of new hams (a la CB wizards) in effort
to boost numbers and few bad apples with it - you get the picture of
deteriorating standards.

When W8JI had a presentation at Dayton's Antenna Forum and spoke about his
"famous - same current along the antenna loading coil", I came to K3LR
(forum leader) and N6BV (ARRL Antenna Book editor) and pointed out that
perhaps there is an error in W8JI assertions, I got this in private mail
from the "guru":

"When you pull people aside at Dayton to bitch about me or others or make
wild crazy statements it just makes you look worse and worse to the people
you are trying most to impress. At Dayton two years ago several people came
up and told me your tried to start conversations about me with them, or that
you started bitching about me."

Sooo, looks like one has to take some articles in ARRL publications with
biiiig grain of salt. Goofy stuff gets through, real expert material gets
swept under by "know-it-alls" in charge, Goofy is right and Right is not
important anymore. "Gurus" beat their drums into the publications and great
confusion ensues.

As far as SWR, I always tried to avoid it by matching, designing antennas to
have impedance of the feedline, and the TX/Amp output matching the feedline

impedance. Standing Wave Ratio always implied two waves - forward and reflected and their superposition. Why waste power in "confused" standing waves, when I can make sure that the waves are marching forward towards the antenna and be radiated. Let the waves stand in the antenna, where they belong, doing radiating and not in the lossy feedline.
High SWR is not imaginary, it is real, can create excessive voltages, dielectric losses and melt the coax.

Happy Mother's Day to all the mothers that did not abort us!
God Bless them and thank you!

Yuri, da BUm

2356. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 18:06:37 UTC
From: U-Know-Who <no-one@nowhere.com>
Message-ID: <Nep9g.21645$Qq.18939@tornado.texas.rr.com>
Source record: 59598
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Brian Hill" <good@it.net> wrote in message
news:lbx6g.220$I75.146@fe02.lga...
>
> "Silent Key" <cw.h@m.bands> wrote in message
> news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
>> What's the purpose of ham radio, To have fun talking about rigs and
>> weather, or to be able to communicate?
>>
>> To be able to communicate when no one else can communicate and to advance
>> radio knowledge & theory?
>>
>> What does part 97 say about this? Why does the ARRL ignore it?
>>
>> When CW is lost, new hams will be just like CB'ers and SWL's, or some
>> other lower life form of radio hobbiest. You name it.
>>
>> SC
>
> Nobody said you had to quit. Keep pounding.
>
> BH
>

Check your clock and date. It is not yet June.

2357. Re: "Symmetrical double-L matchbox tuner"

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 18:33:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cOSdnS1AJ77ZuvvZRVnyiQ@bt.com>
Source record: 59599

I can't understand the aversion to simple, 2-wire, choke baluns
instead of complicated (can be lossy), awkward to adjust, narrow-band,
balanced-to-unbalanced tuners.

Praps it's because it is how a broad-band choke balun works is not
understood. Yet it is childishly simple.

Some people are happy only when tormenting themselves in their hobby
of amateur radio. I suppose the more difficult it is to tune up the
greater the satisfaction to be obtained in accomplishment.

There's no accounting for human idiosyncracies. Everybody please carry
on enjoying yourselves as normal.

Reg.

2358. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 18:41:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <1Lp9g.86415$dW3.70682@newssvr21.news.prodigy.com>
Source record: 59600

glenn.b.dixon@gmail.com wrote:
> Hmmm...not sure I agree that the folks at ARRL are deliberately being
> dumb (or maybe I just misunderstood you).

Let me just relate my personal experience. I submitted an article
to QEX which mentioned light wave theory as explained in "Optics",
by Hecht. An (un-named) QEX employee, with whom I was dealing, had
"Optics" as a college textbook and was very interested in the subject.
He suggested that I expand the light wave theory section of my article,
which I did. After about four revisions, he suddenly stopped responding
to my emails. A couple of months later, I received a rejection letter.
That was well over a year ago.

Two QEX articles have recently appeared covering exactly the same
material as my article but with different slants. QEX still will
not answer my emails and will not publish my letters to the editor.
My treatment by QEX is more akin to religious shunning than
anything else.

I am convinced that the QEX employee that I was dealing with is
deliberately publishing dumbed-down material because he previously
indicated that he knows different from his college optics course.
He is most probably being directed to do so by his superiors because
he was, at first, enthusiastic about publishing my article which
is available from my web page below.
--
73, Cecil http://www.qsl.net/w5dxp/energy.htm

2359. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 18:53:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <rWp9g.86418$dW3.62158@newssvr21.news.prodigy.com>
Source record: 59601

Yuri Blanarovich wrote:
> When W8JI had a presentation at Dayton's Antenna Forum and spoke about his
> "famous - same current along the antenna loading coil", ...

It is unusual for W8JI to give up on an argument so abruptly. I
wish I had thought of the dual-Z0 shortened stub concept years ago.
--
73, Cecil http://www.qsl.net/w5dxp

2360. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 19:17:38 UTC
From: Dave <noone@nowhere.com>
Message-ID: <pLCdnUCwpv5BrfvZnZ2dneKdnZydnZ2d@crocker.com>
Source record: 59602

tell us more, 'dual-z0 shortened stub' sounds like something interesting.

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:rWp9g.86418$dW3.62158@newssvr21.news.prodigy.com...
> Yuri Blanarovich wrote:
>> When W8JI had a presentation at Dayton's Antenna Forum and spoke about
>> his "famous - same current along the antenna loading coil", ...
>
> It is unusual for W8JI to give up on an argument so abruptly. I
> wish I had thought of the dual-Z0 shortened stub concept years ago.
> --
> 73, Cecil http://www.qsl.net/w5dxp

2361. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 19:26:31 UTC
From: Felix <Felix.27rlou@news.radiobanter.com>
Message-ID: <Felix.27rlou@news.radiobanter.com>
Source record: 59607

Buck Wrote:
> On Wed, 03 May 2006 03:49:40 GMT, "Don" ve7ado@yahoo.ca wrote:
>
> try this one 73 ve7ado
>
> http://www.eh-antenna.com/library/EH_ANTENNA_FOR_HAMS.pdf
>
> "Buck" not@this.time wrote in message
> news:jb0a52t70cqcnl4o482hh815fkadf6hbmk@4ax.com...
> Can anyone tell me about this RoomCap Antenna?
>
>
> Thanks, Don.
> ----------
>
>
>
> --
> 73 for now
> Buck
> N4PGW

Hi "Buck"

The RoomCap Antenna is NOT an EH-Antenna.
You should know that, if you have read the homepage of
the antenna.
If you really want to know how it works, and you want be be the owner
of such antenna, you may obtain the construction guide.
You find all this information on:
http://home.tiscali.ch/hb9abx/ant--abx-e.htm

Please take the time to read all, then you get the right information

with best 73

Felix HB9ABX (the developer of the RoomCap Antenna)

BTW: I sent you a normal email after your first request.

--
Felix

2362. blame the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 19:36:25 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147548985.630350.142830@j73g2000cwa.googlegroups.com>
Source record: 59603
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Dave wrote:
> an old friend wrote:
> > Dr.Death wrote:
> >
> >>"Noon-Air" <Noon-Air@comcast.net> wrote in message
> >>news:zsednQItNOzyhPzZnZ2dnUVZ_tCdnZ2d@comcast.com...
> >>
> >
> >>I guess you missed the part of the bible dealing with Sodom and Gomorra
> >>being leveled because of deviant sex.
> >
> >
> > it looks like you missed the facts fot he case Sodom and Gomora were
> > leveled for the ciolations of the law of hospitality
> >
> > learn to read Dr
>
> That's not my reading. Violating the law of hospitality. Where in the
> Torah is that law specifically cited?

that is the tlamund man and comeary of many rabbis
>
> Homosexual sex is defines as SODOMY in Western Law.
well that the west has beciome confused is not my problem

2363. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 19:39:21 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147549161.064623.59130@j33g2000cwa.googlegroups.com>
Source record: 59604
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Dan/W4NTI wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1147047627.949564.83230@y43g2000cwc.googlegroups.com...
> >
> > Dave wrote:
> >> Silent Key wrote:
> >>
> >> > What's the purpose of ham radio, To have fun talking about rigs and
> >> > weather, or to be able to communicate?
> >> >
> >> >SNIPPED
> > the activity.
> >>
> >> It is NOT to open a box, plug it in, connect a wire, and, when it
> >> doesn't work, get on the internet and ask for help.
> >>
> >> I advocate for a code test for the following reason. I value what I have
> >> to plan for, work for, sacrifice for, and invest my time for.
> >>
> >> I value the reward for 18 months of practicing Morse Code every night
> >> for one hour a night. That's an investment.
> > i just wanta return on my 5 years investment I have nothing to show
> > for it
> >
>
> Now that does not surprise me one bit.
>
> Have a good life loser.

that I am wise enoughto want a reutn opn my investment makes me a
loser?
>
> Dan/W4NTI
```

2364. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 20:07:05 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <J%q9g.71901$F_3.48165@newssvr29.news.prodigy.net>
Source record: 59605

Dave wrote:
> tell us more, 'dual-z0 shortened stub' sounds like something interesting.

In my quest to explain the phase shift in a 75m bugcatcher
coil, I thought about a dual-Z0 stub. The shortest 450/50 one
I have come up with that causes the maximum phase shift is:

---19 deg of 450 ohm line---+---18 deg of 50 ohm line---open

Believe it or not, that is an electrical 1/4WL stub with a
whopping 53 degrees of *lossless* phase shift occurring at the
'+' impedance discontinuity point. Are there any applications
for a stub that is physically 0.1 WL long instead of 0.25WL?

It could be shortened even more by using 600 ohm line with
50 ohm line. On top of everything else, the current in the
50 ohm section seems to be much lower than the current in
the 600 ohm section thus reducing the losses in the stub.

From these experiments, I have concluded that the phase shift
in a 75m mobile loading coil may be in the ballpark of 20 degrees
while the phase shift in the stinger is in the ballpark of 20
degrees with the majority of phase shift coming from the
impedance discontinuity between the loading coil and the stinger.
So neither side of the years-long argument was right or wrong.
--
73, Cecil http://www.qsl.net/w5dxp

2365. Re: SEEMS LIKE SOME FOLKS DON'T LIKE HAM RADIO TOWERS.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 21:04:28 UTC
From: "X-rated Vermonter"
Message-ID: <idic625edc5rg9f500l6igerh91eo1fn7q@4ax.com>
Source record: 59606

On Fri, 12 May 2006 16:33:03 -0400, JJ <jamesevns75@hotmail.com>
wrote:

>Hi all, click on the link below or copy and paste it in your browsers
>"go to" area.
>Seems some Seems some folks don't like ham radio towers.
>
>http://www.youtube.com/watch?v=aC_EeWSKJII
>
>73
>
At least PRB-1 has the local peasants keeping their pitchforks and
squibs at home.

2366. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 21:07:43 UTC
From: EA3FYA - Toni <ea3fya@hotmail.com>
Message-ID: <e45hmt$719$1@emma.aioe.org>
Source record: 59608

En/na Dave ha escrit:
> ... Come on, just a little fight???

Just a question about coax cables:

I know that a coax cable does not radiate (if common mode currents properly suppressed) because both conductors are apparently "in the same place" (wouldn't know how to express it in more technical terms).

Now the question is: This is true for big distances from the coax, but is it also true when you get very close to the coax? Imagine a conductor taped to the outside of a coax for some meters. The capacitive coupling to the braid is much higher than the coupling to the inner conductor. Would it pick some of the current in the coax. If not, why not?

(apart from fun I'm really interested in the answer as I'm not quite sure if a coax running parallel to unshielded and not twisted computer cables would pick harmonics from it on RX or create interferences on TX)

--
Toni

2367. Re: blame the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 21:34:45 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <AvqdnSfeXv5uzfvZRVn-sQ@comcast.com>
Source record: 59609
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

an_old_friend wrote:

SNIPPED
>
> that is the tlamund man and comeary of many rabbis
>
>>Homosexual sex is defines as SODOMY in Western Law.
>
> well that the west has beciome confused is not my problem
>

I hope you mean TALMUD!

Does the TALMUD have the same broad based acceptance in Judaism as the
TORAH?

2368. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 22:12:32 UTC
From: Radio Buff <em@il.here>
Message-ID: <kRs9g.2131$y4.1708@newsread2.news.pas.earthlink.net>
Source record: 59610
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Terry Steer" <terry.steer@btinternet.com> wrote in
news:kbydne3XbsdFPPjZRVnygw@bt.com:

> "Radio Buff" <em@il.here> wrote in message
> news:us69g.1632$y4.1107@newsread2.news.pas.earthlink.net...
>> "Galen, W8LNA" <w8lna@arrl.net> wrote in
>> news:shv8g.488$oa1.132@news02.roc.ny:
>>
>>> Radio Buff wrote:
>>>>
>>>> As ham radio test standards have lowered over the years, I've noted a
>>>> marked increase in the amount of obscenity, profanity, and indecency.
>>>>
>>>> RB
>>>
>>> At the same time the price of gasoline has gone up, the minimum wage
>>> has gone up, the stock market has gone up but in just about all areas
>>> of society mutual respect and courtesy have gone down.
>>>
>>> I think it has very little if anything at all to do with Morse code.
>>>
>>> W8LNA
>>
>>
>>
>> And I've never heard a couple ops insult or cuss each other out in CW
>> either.
>
>> sc
>
> How about: ZBK2 I am receiving your traffic garbled
> ZBM2 Place a competent operator on this circuit

That's not an insult.

sc

2369. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 22:12:33 UTC
From: Slow Code <em@il.here>
Message-ID: <lRs9g.2132$y4.1683@newsread2.news.pas.earthlink.net>
Source record: 59611
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"an_old_friend" <konstans@hotmail.com> wrote in
news:1147549161.064623.59130@j33g2000cwa.googlegroups.com:

>
> Dan/W4NTI wrote:
>> "an_old_friend" <konstans@hotmail.com> wrote in message
>> news:1147047627.949564.83230@y43g2000cwc.googlegroups.com...
>> >
>> > Dave wrote:
>> >> Silent Key wrote:
>> >>
>> >> > What's the purpose of ham radio, To have fun talking about rigs
>> >> > and weather, or to be able to communicate?
>> >> >
>> >> >SNIPPED
>> > the activity.
>> >>
>> >> It is NOT to open a box, plug it in, connect a wire, and, when it
>> >> doesn't work, get on the internet and ask for help.
>> >>
>> >> I advocate for a code test for the following reason. I value what I
>> >> have to plan for, work for, sacrifice for, and invest my time for.
>> >>
>> >> I value the reward for 18 months of practicing Morse Code every
>> >> night for one hour a night. That's an investment.
>> > i just wanta return on my 5 years investment I have nothing to show
>> > for it
>> >
>>
>> Now that does not surprise me one bit.
>>
>> Have a good life loser.
>
> that I am wise enoughto want a reutn opn my investment makes me a
> loser?

I have a request OM. Could you please proof-read your posts before you
hit the send button? Tnx in advance.

73

sc

2370. WTB Butternut HF6V

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 22:38:48 UTC
From: Paolo Emanuelli IK1QHB <ik1qhb@libero.it>
Message-ID: <Ydt9g.121727$A83.2885732@twister1.libero.it>
Source record: 59612

WTB Butternut HF6V.

Offer to ik1qhb@libero.it only

Paul IK1QHB

2371. Re: Antenna cables in metallic conduit?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 22:41:55 UTC
From: shoppa@trailing-edge.com
Message-ID: <1147560115.269488.51070@g10g2000cwb.googlegroups.com>
Source record: 59613

Allisonnospam@nouce.bellatlantic.net wrote:
> Shielded cables in conduit is fine and works. Hwoever 1/2" EMT is
> just the right size for one run of RG8 or 213 (.400 cable). If your
> serious about EMT use someting larger say 3" or 4" and use
> the prefab bends (radius turns) so pushing cables later is not too
> painful.

Wow Allison, 3" or 4" conduit is pretty heavy duty stuff, although I do appreciate the thought of "run the conduit once and then just snake more cables through as you need them".

I was thinking of 1/2" EMT and running individual conduits for ethernet/CAT5 and each antenna, with the end of each conduit coming out in an appropriate part of the shack.

Another reason for doing multiple smaller runs of the EMT is that there is 2nd-story room where the cables run through tacked onto the wall, it'd be nicer to have whatever conduit goes through that room to be as unobtrusive as possible. I was thinking of multiple 1/2" EMT's up against the wall, although maybe a single fat conduit might be less obtrusive.

3" EMT seems to be about ten times more expensive than 1/2" EMT. Although it undoubtedly could carry more than ten times as much RG-8 :-).

Tim.

2372. Re: Antenna cables in metallic conduit?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 23:11:43 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <PIt9g.1991$x4.1185@newsread3.news.pas.earthlink.net>
Source record: 59614

>
> Another reason for doing multiple smaller runs of the EMT is that there
> is 2nd-story room where the cables run through tacked onto the wall,
> it'd be nicer to have whatever conduit goes through that room to be as
> unobtrusive as possible. I was thinking of multiple 1/2" EMT's up
> against the wall, although maybe a single fat conduit might be less
> obtrusive.
>
> 3" EMT seems to be about ten times more expensive than 1/2" EMT.
> Although it undoubtedly could carry more than ten times as much RG-8
> :-).

Instead of EMT you may want to use some of the plastic electrical conduit.
Not sure if it would meet the building codes for what you want by going from
one floor to the next. It is sort of a grey colored PVC type of pipe.
Probalby not really PVC but another plastic.
It will do nothing for the shielding, just may be neater to run than the
plain coax.

2373. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 23:27:22 UTC
From: Dave <noone@nowhere.com>
Message-ID: <c46dndyoet_59vvZnZ2dnUVZ_uWdnZ2d@crocker.com>
Source record: 59615

no... and yes.... there would be some pickup, but only from leakage through an imperfect braid. because the current is on the inside of the shield it would not couple to the cable on the outside. the electric and magnetic fields are contained completely inside the shield.

"EA3FYA - Toni" <ea3fya@hotmail.com> wrote in message news:e45hmt$719$1@emma.aioe.org...
> En/na Dave ha escrit:
>> ... Come on, just a little fight???
>
> Just a question about coax cables:
>
> I know that a coax cable does not radiate (if common mode currents
> properly suppressed) because both conductors are apparently "in the same
> place" (wouldn't know how to express it in more technical terms).
>
> Now the question is: This is true for big distances from the coax, but is
> it also true when you get very close to the coax? Imagine a conductor
> taped to the outside of a coax for some meters. The capacitive coupling to
> the braid is much higher than the coupling to the inner conductor. Would
> it pick some of the current in the coax. If not, why not?
>
> (apart from fun I'm really interested in the answer as I'm not quite sure
> if a coax running parallel to unshielded and not twisted computer cables
> would pick harmonics from it on RX or create interferences on TX)
>
> --
> Toni

2374. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-13 23:59:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126csmr1uihdi5e@corp.supernews.com>
Source record: 59616

EA3FYA - Toni wrote:
>
> Just a question about coax cables:
>
> I know that a coax cable does not radiate (if common mode currents
> properly suppressed) because both conductors are apparently "in the same
> place" (wouldn't know how to express it in more technical terms).

Here's why it doesn't radiate: In a coaxial cable with a solid shield, the differential mode current is entirely inside the shield. Current and fields penetrate only a very small distance from the inner surface of the shield, and no significant amount ever makes it through to the outside. This is assuming that the shield is at least several skin depths thick, which is a good assumption at HF and above.

Common mode current, by contrast, flows on the outside of the shield, and its field radiates outward from there.

> Now the question is: This is true for big distances from the coax, but
> is it also true when you get very close to the coax? Imagine a conductor
> taped to the outside of a coax for some meters. The capacitive coupling
> to the braid is much higher than the coupling to the inner conductor.
> Would it pick some of the current in the coax. If not, why not?

Again assuming a solid shield -- the center conductor carries a current and therefore creates a field. The inner surface of the shield carries an equal and opposite current and also creates a field. But those fields are equal and opposite, and cancel at all points beyond a thin layer on the inner surface of the shield. Since there's no significant field at any point outside the shield, it doesn't matter where you look, you won't find any, and there isn't any field to couple to anything else.

In reality, any shield other than a completely solid one (such as the shield of hard line or semi-rigid coax) will leak some because of gaps or holes. And the field will couple more strongly to wires which are close than those which are far away. Whether the amount of leakage is significant or not depends on the application.

> (apart from fun I'm really interested in the answer as I'm not quite
> sure if a coax running parallel to unshielded and not twisted computer
> cables would pick harmonics from it on RX or create interferences on TX)

You might get enough leakage through the shield of ordinary coax to cause problems in both cases. It depends on the transmit power level, the signals in the wires, the length over which they're bundled, the frequencies involved, the quality of the shield, and so forth.

Separating them even a small distance would reduce the coupling considerably. But you're likely to have more trouble with common mode current.

Roy Lewallen, W7EL

2375. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 00:16:44 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <446676ec$0$6151$39cecf19@news.twtelecom.net>
Source record: 59617

Gene Fuller wrote:

> Isn't superposition wonderful!
>
> 73,
> Gene
> W4SZ

Yup, it's why I find religion so amusing.

tom
K0TAR

2376. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 00:19:56 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <446677ac$0$6151$39cecf19@news.twtelecom.net>
Source record: 59618

n3ox.dan@gmail.com wrote:

> Funny thing is that I'm down with the slow-wave loading coil thing.
> Maxwell's equations are your friend... not a very nice friend when
> Bessel functions are involved, but...
>
> Faster than light, though? Maybe the phase velocity in some tricky
> cryogenic world, but I dunno...
>

And light has now gone faster than light. Well, sort of. It did get
there before it left in this case.

http://www.scienceblog.com/cms/lights-most-exotic-trick-yet-so-fast-it-goes-backwards-10590.html

tom
K0TAR

2377. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 01:00:17 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Biv9g.57399$Fs1.49722@bgtnsc05-news.ops.worldnet.att.net>
Source record: 59619

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Why would anyone try to prove that the basic math of adding sinusoidal
>> functions is incorrect? To the contrary, you are the one who insists
>> that a standing wave and its constituent traveling wave components are
>> somehow different and unique.
>
>
> Actually, it was you who made that assertion and thanks for the
> opportunity to quote you once again:
>
> Gene Fuller, W4SZ wrote:
> > In a standing wave antenna problem, such as the one you describe,
> > there is no remaining phase information. Any specific phase
> > characteristics of the traveling waves died out when the startup
> > transients died out.
>
> So standing waves are "somehow different" from traveling waves
> according to your own assertions. The traveling wave possesses
> phase characteristics and the standing wave doesn't.

Cecil,

You keep making the same mistake. Yes, you can analyze traveling waves instead of standing waves if you so choose. However, there is not one bit of additional physical information in the traveling waves that is not in the standing wave. Any "phase characteristic" is simply a function of the mathematical manipulations you use.

Perhaps someday you will actually understand superposition, but I won't hold my breath.

73,
Gene
W4SZ

2378. REALISTIC DX-302 HAM-SHORTWAVE RECEIVER-MINT-$150

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 01:12:13 UTC
From: DeserTBoB <desertb@rglobal.net>
Message-ID: <mj0d62p832q4sl1bqfp2ebnta69gd263f5@4ax.com>
Source record: 59620
Cross-posted to: rec.radio.scanner,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.cb,rec.radio.amateur.policy,uk.radio.amateur,rec.radio.amateur.antenna

>On 12 May 2006 at 09:09:07 -700, "Charlie Nudo"
<winchester1886@hotmail.com> spammed:

http://cgi.ebay<snip>

STOP THIS SPAMMER!

Google Groupers:

Go to the original post with this subject, click on "Show Options,"
click on "Show Original," cut and paste the whole message including
headers, and send in a spam complaint to:

groups-abuse"AT"google.com
abuse"AT"epix.net
spam"AT"ebay.com (Spammer's eBay account is "66fourdoor")

This spammer shows up under various trash (MAPI) email accounts:

trippin28track"AT"yahoo.com
winchester1886"AT"hotmail.com
nativebrookie"AT"hotmail.com

Due to Google Groups shutting down some of his other MAPI accounts,
the fool is now also spamming from his own POP3 accounts:

analog"AT"epix.net
bb69"AT"epix.net

His home ISP is Epix. His main POP3 account is
thenudofamily"AT"epix.net. ALL his spam eminates from Epix IP blocks.

Those using real newsreaders will already know what to do with this
spamming pest and eBay fraudster. His spam posts are a violation of
eBay's Terms of Service pertaining to Usenet Policy. Be sure to
include that in your report to eBay.

2379. FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 01:12:50 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <luv9g.169$yJ6.163@fe12.lga>
Source record: 59621

Howdy antenna aficionados!

Wanna FIGHT?

Here is another misconception propagated by "guru" W8JI, like "there is no electrostatic shielding, the grounded piece of tubing (shield) IS the antenna."

Let the games begin! (I will hold my horses for a while :-)

As posted on TopBand@contesting.com reflector:

>>>
Subject:
"The June, 2006 QST has an article about a 160m RX loop.
Comments, advice welcome."
73,
Tim K3HX

Tim, et al,
I just received the rag here. Very interesting this article, in light of the many discussions on this reflector and antennas reflector, concluding by our best experts that a shield contributes to NO USEFUL function whatsoever in such a receiving loop! It just essentially becomes electrically the loop itself; the shield's outer skin IS the antenna. No S/N ratio advantage, no anything except adding to a very critical balancing result. No noise discrimination, no magic. So what gives with this mythological article?
73, Roy K6XK

W8JI wrote:

Roy and all,

It appears QST isn't as careful as they used to be years ago.

It is a very well known physical property of a "shield" more than several skin depths thick that essentially nothing goes through that shield. It's a Faraday cage, and when the time-varying electric field goes to zero so does the magnetic field. This is explained in nearly every handbook (even ARRL publications) and is the reason coaxial cables have that "third path" on the outside of the shield for common mode currents. This is why a bead balun or a coil of coax works to stop common mode on the outside of the shield and does not affect the stuff inside the cable.

Obviously any technical explanation that requires fields to go through the shield isn't accurate.

It is also a very well known fact that radio waves are electromagnetic, and the interference (unless in the induction field area of less than a half wave or so) is a radio wave, and like all radio waves it is neither magnetic or electric. It has a fixed ratio or electric to magnetic fields. It is also established that a very short distance from a small loop the predominant field is electric, not magnetic. Clearly a shield can't "filter" noise, since noise is not field sensitive.

So what does the shield in a loop do? The shield is actually the antenna element. The shield is actually what receives (and/or transmits) the EM wave. NOT the wire inside the shield. The wire inside the shield simply couples whatever device is connected to the antenna (the loop's shield) to the receiver.

If we have a poor coupling system to the loop, how we configure the shield can certainly affect the balance of the loop and the common mode current. Say we use an unbalanced line or we use an unbalanced amplifier directly attached to a loop. Now we have created a problem, the feedline feeding the loop acts just like part of the antenna system. We have an unbalanced feedline or amplifier tied to a balanced antenna, and so every conductor going to that point acts like part of the antenna system. We can couple noise and signals picked up by the feedline shield and everything in the house to the input of the receiver.

I go through this problem in detail at:

http://www.w8ji.com/magnetic_receiving_loops.htm

If you read carefully you'll see no has ever said the shield and how the shield is connected won't change the system when the system is not designed correctly. When the feedpoint is done correctly, the presence or absence of a shield has no effect at all on the system. All the stuff about the shield "filtering" the fields and blocking the electric field is nonsense. But some construction methods do result in better loop balance.

The characteristics of an improperly done feed system are affected by the construction of the loop, but that isn't because the shield is necessary or that a solid shield behaves differently than braided shield. It's because something was more wrong with the construction in one system compared to the other, not because of the shield quality.

73 Tom

<<<

2380. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 01:26:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126d1qpm578ho3b@corp.supernews.com>
Source record: 59622

Yuri Blanarovich wrote:
> Howdy antenna aficionados!
>
> Wanna FIGHT?
>
> Here is another misconception propagated by "guru" W8JI, like "there is no
> electrostatic shielding, the grounded piece of tubing (shield) IS the
> antenna."
>
> Let the games begin! (I will hold my horses for a while :-)
>
> As posted on TopBand@contesting.com reflector:
> . . .

I don't find anything incorrect with Tom's response. What did you find
in it that wasn't accurate?

Roy Lewallen, W7EL

2381. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 02:03:06 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44668fda$0$1016$39cecf19@news.twtelecom.net>
Source record: 59623

Yuri Blanarovich wrote:

> Howdy antenna aficionados!
>
> Wanna FIGHT?
>
>

Yuri

More mixer and more ice would serve you well.

tom
K0TAR

2382. Singer Stoddart 94592-1 rod antenna coupler info

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 02:31:20 UTC
From: Dave Rude <dave.rude@sbcglobal.net>
Message-ID: <YDw9g.76557$H71.17317@newssvr13.news.prodigy.com>
Source record: 59625

Greetings,
I have come by a Singer Stoddart 94592-1 rod antenna coupler. It is a cube about 4.5" is green and has a telescoping antenna on top affixed by a screw on BNC type connector. The output is BNC and there are two binding posts for B+ input I believe. I haven't been able to find a thing on the www about this device, although, i did see one listed on ebay once for big bucks. Does anyone have any info on this device they would share with me?
The device is for H.F.
Dave - KA9SRU
dave.rude@sbcglobal.net
Thanks

2383. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 03:39:03 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <rDx9g.70448$_S7.36078@newssvr14.news.prodigy.com>
Source record: 59624

Gene Fuller wrote:
> However, there is not one
> bit of additional physical information in the traveling waves that is
> not in the standing wave.

I agree with you but W8JI and W7EL have rejected the concept that
there is any phase information in the standing wave current magnitude.
They have rejected any use of the arc-cosine function in calculating
that phase. The following graphs show the difference in the standing
wave current and the traveling wave current.

http://www.qsl.net/w5dxp/travstnd.GIF

The standing wave current phase contains zero phase information
as you have stated. As you say, all the standing wave current
phase information is contained in the magnitude but the arc-cosine
function for obtaining that phase information has been rejected by
the experts. For the traveling wave, there is phase information
contained in the phase, none in the magnitude.

Every time you make a technical assertion, you support my argument.
Seems your argument is really with the side that rejects the arc-
cosine function for obtaining phase information.
--
73, Cecil http://www.qsl.net/w5dxp

2384. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 05:56:10 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147586170.894157.292250@d71g2000cwd.googlegroups.com>
Source record: 59526
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Slow Code wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in
> news:1147549161.064623.59130@j33g2000cwa.googlegroups.com:
>
> >

> >> Now that does not surprise me one bit.
> >>
> >> Have a good life loser.
> >
> > that I am wise enoughto want a reutn opn my investment makes me a
> > loser?
>
>
> I have a request OM. Could you please proof-read your posts before you
> hit the send button? Tnx in advance.

no you can't have it takes too much time this has been explained over
and over agin

you don't like it don't read my stuff is one of your options
>
>
> 73

after all you dicided to use something i find insulting right therefor
it cw related meaning
>
> sc

2385. Re: blame the posters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 06:04:02 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147586642.523584.78510@i39g2000cwa.googlegroups.com>
Source record: 59527
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Dave wrote:
> an_old_friend wrote:
>
> SNIPPED
> >
> > that is the tlamund man and comeary of many rabbis
> >
> >>Homosexual sex is defines as SODOMY in Western Law.
> >
> > well that the west has beciome confused is not my problem
> >
>
> I hope you mean TALMUD!
>
> Does the TALMUD have the same broad based acceptance in Judaism as the
> TORAH?
yes it does indeed in orthodox jaudaism it can trump the literal Torah

2386. Re: how many receivers per antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 06:13:14 UTC
From: notyeti <notyeti.27sj0u@news.radiobanter.com>
Message-ID: <notyeti.27sj0u@news.radiobanter.com>
Source record: 59532

Hi Sal,

I appreciate your suggestion. I am looking for radio interference more than anything. It would just be enough to note that there was interference, and its local level, on certain frequencies. It would be good to have a good clean signal per receiver to establish a base line. Some of the 'wx' only affects certain operating frequencies which makes it easy to find. You can see some of the more exotic stuff at www.sec.noaa.gov which is "right down the street." The only difference I'm coordinating it with crime and health information instead of terrestial communications. "Right up the street" another amateur discovered that lightning goes upward, in a relative handful of configurations. My experiment is not so real time. I do appreciate your idea however and plan a grounded wall box with a few of those sort amps inside. Thanks Sal. Stay dry!

notyeti

--
notyeti

2387. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 06:42:59 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147588979.553389.47260@j33g2000cwa.googlegroups.com>
Source record: 59529
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Not Lloyd II wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1147586170.894157.292250@d71g2000cwd.googlegroups.com...
>

> > I have a request OM. Could you please proof-read your posts before you
> > hit the send button? Tnx in advance.
>
> no you can't have it takes too much time this has been explained over
> and over agin
>
> you don't like it don't read my stuff is one of your options
> >
> >
> > 73
>
> after all you dicided to use something i find insulting right therefor
> it cw related meaning
> >
> Using a spell check program takes but a few seconds.
using a spell checker is imposib;le under google

>You refuse to do so,
> and we must thereby assume that, 1. You are lazy.
one is the closest
> 2. You are far too dense
> to know how to use one. 3. Your head is so firmly emplanted in your rectal
> cavity that you cannot remove it. 4. All of the above.

but i think you are enaged in self discrition again
you clearly have your head up your ass
```

2388. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 06:49:11 UTC
From: Buck <not@this.time>
Message-ID: <q6hd62l0rfrrpt5cr9e75nrl7mlivkk6mf@4ax.com>
Source record: 59530

>Hi "Buck"
>
>The RoomCap Antenna is NOT an EH-Antenna.
>You should know that, if you have read the homepage of
>the antenna.
>If you really want to know how it works, and you want be be the owner
>of such antenna, you may obtain the construction guide.
>You find all this information on:
>http://home.tiscali.ch/hb9abx/ant--abx-e.htm
>
>Please take the time to read all, then you get the right information
>
>with best 73
>
>Felix HB9ABX (the developer of the RoomCap Antenna)
>
>BTW: I sent you a normal email after your first request.

Someone else sent a link to an EH antenna as the answer. I guess they were wrong. Right now I cannot link to your site. For some reason, I am unable to send email to your address, I think it has something to do with spam filters. I get this periodically as someone on bellsouth sends a message to a spam trap and the entire ISP is blocked. Likewise, I have not received an email from you, probably because the address in this is fake due to the magnitude of spam generated. Someone else did forward an email from you that you send out showing that what you are doing is selling the information.

No one in his right mind would order an item in which they must agree to abide by the terms and conditions that they can't read before buying the product.

Nothing personal, but your website is anything but professional looking. I do recall the following: you rant and rave about what others have said that disagree with you or your findings about your antenna. Most, if not all these arguments, I can only find on your own site, so your defense against these allegations and the attitude you portray only distract focus from one's interest, your antenna, and instead lays it onto your frustration and other's arguments.

Additionally, you could just as easily have posted the required information about the costs and the obligatory terms and conditions of purchase of your CD-ROM.

I must say, that based on the information on your site, there is a lot of controversy over what your antenna actually is, or how it performs.

I notice that you don't actually sell the antenna, only the design information on a CD-ROM. Of course, that could reinforce the idea that you could be treading on the EH antenna design patents as someone else suggested (that your antenna is actually an EH design.)

Personally, I think you could greatly benefit by removing all the controversy, give a little more detail about your antenna and specifically, adding the details of your private email that has to be requested to learn more about the antenna.

How much are the parts required to make the antenna? After you so carefully protected me from receiving the minimum information on obtaining more information about the antenna, how do I know you aren't hiding something else such as a part you manufacture that I have to buy from you before being able to successfully build that antenna.

In all reality, you have frightened me from buying the information from you about this antenna. I would like to hear from someone who has actually gotten your disc and possibly built the antenna so I can know how it performs from someone else's point of view.

If it performs as well as you claim it does, or if it is similar to the performance of an EH per size,(for example, hypothetically speaking, a 3 foot antenna performs as well as a 1/2 wave vertical 20 meter antenna), and if the cost and skill level required for building the antenna is suitable to me, I might be interested in purchasing the plans for your antenna.

However, your website leaves me with the impression that you are afraid of being criticized, almost to the point of paranoia, and from a business standpoint, I may be the only person who does this, but I actually READ contracts before I sign them. If I can't read it, it won't get signed.

This is nothing personal as neither of us knows each other. I am not accusing you of anything, good nor bad. I am just stating things as I see them. From what I see on your website only makes me want to know more from what others who have interacted with your antenna have to say before I proceed further in entering a contract with you.

Thanks for trying to send me the email. I do get frustrated at this mess with spam filters blocking all my ham buddies and passing spam all day long.

73 for now,
Buck
N4PGW

--
73 for now
Buck
N4PGW

2389. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 07:30:31 UTC
From: Not Lloyd II <CurtainsBoy@Glendale.up>
Message-ID: <38c8.gop.17.1@news.alt.net>
Source record: 59528
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1147586170.894157.292250@d71g2000cwd.googlegroups.com...

Slow Code wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in
> news:1147549161.064623.59130@j33g2000cwa.googlegroups.com:
>
> > >

> >> Now that does not surprise me one bit.
> >>
> >> Have a good life loser.
> > >
> > > that I am wise enoughto want a reutn opn my investment makes me a
> > > loser?
> >
> >
> > I have a request OM. Could you please proof-read your posts before you
> > hit the send button? Tnx in advance.

no you can't have it takes too much time this has been explained over
and over agin

you don't like it don't read my stuff is one of your options
>
>
> 73

after all you dicided to use something i find insulting right therefor
it cw related meaning
>
Using a spell check program takes but a few seconds. You refuse to do so,
and we must thereby assume that, 1. You are lazy. 2. You are far too dense
to know how to use one. 3. Your head is so firmly emplanted in your rectal
cavity that you cannot remove it. 4. All of the above.

2390. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 08:21:25 UTC
From: Pete <zs5actRemovethis@mweb.co.za>
Message-ID: <e46pbvnkc1@ctb-nnrp2.saix.net>
Source record: 59531
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"Radio Buff" <em@il.here> wrote in message
news:us69g.1632$y4.1107@newsread2.news.pas.earthlink.net...
> "Galen, W8LNA" <w8lna@arrl.net> wrote in
> news:shv8g.488$oa1.132@news02.roc.ny:
>
>> Radio Buff wrote:
>>>
>>> As ham radio test standards have lowered over the years, I've noted a
>>> marked increase in the amount of obscenity, profanity, and indecency.
>>>
>>> RB
>>
>> At the same time the price of gasoline has gone up, the minimum wage has
>> gone up, the stock market has gone up but in just about all areas of
>> society mutual respect and courtesy have gone down.
>>
>> I think it has very little if anything at all to do with Morse code.
>>
>> W8LNA
>
>
>
> And I've never heard a couple ops insult or cuss each other out in CW
> either.
>
> sc

By golly your'e right!

But it sure would take a l o n g time to spell it out to the other op if
you did!

73.

--
Pete . .
ZS5ACT

2391. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 09:50:18 UTC
From: Felix <Felix.27szov@news.radiobanter.com>
Message-ID: <Felix.27szov@news.radiobanter.com>
Source record: 59541

Buck Wrote:
> [color=blue]
>
>
> Someone else sent a link to an EH antenna as the answer. I guess they
> were wrong. Right now I cannot link to your site. For some reason, I
> am unable to send email to your address, I think it has something to
> do with spam filters. I get this periodically as someone on bellsouth
> sends a message to a spam trap and the entire ISP is blocked.
> Likewise, I have not received an email from you, probably because the
> address in this is fake due to the magnitude of spam generated.
> Someone else did forward an email from you that you send out showing
> that what you are doing is selling the information.
>
> No one in his right mind would order an item in which they must agree
> to abide by the terms and conditions that they can't read before
> buying the product.
>
> Nothing personal, but your website is anything but professional
> looking. I do recall the following: you rant and rave about what
> others have said that disagree with you or your findings about your
> antenna. Most, if not all these arguments, I can only find on your
> own site, so your defense against these allegations and the attitude
> you portray only distract focus from one's interest, your antenna, and
> instead lays it onto your frustration and other's arguments.
>
> Additionally, you could just as easily have posted the required
> information about the costs and the obligatory terms and conditions of
> purchase of your CD-ROM.
>
> I must say, that based on the information on your site, there is a lot
> of controversy over what your antenna actually is, or how it performs.
> I notice that you don't actually sell the antenna, only the design
> information on a CD-ROM. Of course, that could reinforce the idea
> that you could be treading on the EH antenna design patents as someone
> else suggested (that your antenna is actually an EH design.)
>
> Personally, I think you could greatly benefit by removing all the
> controversy, give a little more detail about your antenna and
> specifically, adding the details of your private email that has to be
> requested to learn more about the antenna.
>
> How much are the parts required to make the antenna? After you so
> carefully protected me from receiving the minimum information on

> obtaining more information about the antenna, how do I know you aren't
> hiding something else such as a part you manufacture that I have to
> buy from you before being able to successfully build that antenna.
>
> In all reality, you have frightened me from buying the information
> from you about this antenna. I would like to hear from someone who
> has actually gotten your disc and possibly built the antenna so I can
> know how it performs from someone else's point of view.
>
> If it performs as well as you claim it does, or if it is similar to
> the performance of an EH per size,(for example, hypothetically
> speaking, a 3 foot antenna performs as well as a 1/2 wave vertical 20
> meter antenna), and if the cost and skill level required for building
> the antenna is suitable to me, I might be interested in purchasing the
> plans for your antenna.
>
> However, your website leaves me with the impression that you are
> afraid of being criticized, almost to the point of paranoia, and from
> a business standpoint, I may be the only person who does this, but I
> actually READ contracts before I sign them. If I can't read it, it
> won't get signed.
>
> This is nothing personal as neither of us knows each other. I am not
> accusing you of anything, good nor bad. I am just stating things as I
> see them. From what I see on your website only makes me want to know
> more from what others who have interacted with your antenna have to
> say before I proceed further in entering a contract with you.
>
> Thanks for trying to send me the email. I do get frustrated at this
> mess with spam filters blocking all my ham buddies and passing spam
> all day long.
>
> 73 for now,
> Buck
> N4PGW
>
> --
> 73 for now
> Buck
> N4PGW

Hi Buck and others:

EH-Antenna an RoomCap antenna:

These are two different types of antennas, as the basic principle of
the
EH-Antenna is the use of a phase shift network that shall produce a 90
degree phase shift between the current and voltage to the antenna.
This phase shift does not exist in the RoomCap antenna.
But there are further main constructional differences, which can be

seen
in detail in the construction guide.

The RoomCap antenna is working basically with the electric field which
is produced into the open space between the radiator and the counter
plane.
To achive this, a so called VARYLINK is used to feed the antenna with
an SWR of 1:1 on each band.

The VARYLINK does not exist in the EH-Antenna.

Regarding my personal email:

- First email: hb9abx at tiscali.ch

- Second email: hb9abx-1 at hispeed.ch

Note:
The first construction guides have been mailed 2 weeks ago
and arrived a few says ago. Now many HAMs are working on their
construction. Let's see their results.

Best 73s
Felix HB9ABX

--
Felix

2392. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 10:21:27 UTC
From: Toni <devegades@gmail.com>
Message-ID: <e47074frj1@emma.aioe.org>
Source record: 59533

En/na Roy Lewallen ha escrit:
> EA3FYA - Toni wrote:
>>
>> I know that a coax cable does not radiate (if common mode currents
>> properly suppressed) because both conductors are apparently "in the
>> same place" (wouldn't know how to express it in more technical terms).
>
> Here's why it doesn't radiate: In a coaxial cable with a solid shield,
> the differential mode current is entirely inside the shield. Current and
> fields penetrate only a very small distance from the inner surface of
> the shield, and no significant amount ever makes it through to the
> outside. This is assuming that the shield is at least several skin
> depths thick, which is a good assumption at HF and above.

When you say "Current and fields penetrate only a very small distance...", I agree for the current part, but I'm not so sure for the fields part:

As I understand it you can not "stop a field" in no way, though you can certainly nullify it with an identical but opposite field.

Then the question is whether the two fields (the one from the current flowing in the shield + the one from the current flowing in the inner conductor) nullify at all points in the immediate vicinity of the shield. I certainly believe it but would like to understand why this is so.

I guess the mathematical proof would involve assuming the braid is an infinite number of conductors equally spaced around the center conductor, each having it's infinitesimal share of the shield current, and integrating all of their fields at the point of interest (Would probably be able to do so back when I was at university but now it is too strong math for me). Would this be a good approximation of the problem?

--
Toni

2393. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 10:23:35 UTC
From: Toni <devegades@gmail.com>
Message-ID: <e470b3$h68$1@emma.aioe.org>
Source record: 59534

Thanks four your answers.

I was forgetting you normally use coax in a unbalanced configuration
where the braid is supposed to be at 0 voltage so only currents matter.

Would all this still hold if you used the coax as a _balanced_
transmission line? (unusual but -I think- possible). In this case
wouldn't voltages develop on the braid that could capacitively couple to
other conductors?

(assuming perfect solid shield, ...)

--
Toni

2394. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 11:32:49 UTC
From: Dave <noone@nowhere.com>
Message-ID: <zc6dnT22n7LxiPrZnZ2dnUVZ_tydnZ2d@crocker.com>
Source record: 59535

GREAT! I even got a spin-off thread! just the kind thing to keep a cold,
wet, windy day interesting!

"Tom Ring" <news0002@taring.org> wrote in message
news:44668fda$0$1016$39cecf19@news.twtelecom.net...
> Yuri Blanarovich wrote:
>
>> Howdy antenna aficionados!
>>
>> Wanna FIGHT?
>>
>>
>
> Yuri
>
> More mixer and more ice would serve you well.
>
> tom
> K0TAR

2395. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 11:38:47 UTC
From: Dave <noone@nowhere.com>
Message-ID: <pNudnYwgCq1Pi_rZRVn-uA@crocker.com>
Source record: 59536

the voltage on the braid is not zero on the inside, it varies along with the wave traveling along the inside of the coax. and the currents are exactly balanced inside the coax also, they have to be or it wouldn't work. this notion of balanced vs un-balanced transmission lines is totally confusing to most people, in a proper system, say just with a dummy load on a coax the currents on the shield exactly balance the current on center conductor. so why do we go through all this stuff with bal-uns?? and coax chokes?? the currents are already balanced, so WHY?? come on you gurus out there, explain this one!

"Toni" <devegades@gmail.com> wrote in message
news:e470b3$h68$1@emma.aioe.org...
> Thanks four your answers.
>
> I was forgetting you normally use coax in a unbalanced configuration where
> the braid is supposed to be at 0 voltage so only currents matter.
>
> Would all this still hold if you used the coax as a _balanced_
> transmission line? (unusual but -I think- possible). In this case wouldn't
> voltages develop on the braid that could capacitively couple to other
> conductors?
>
> (assuming perfect solid shield, ...)
>
> --
> Toni

2396. Re: Singer Stoddart 94592-1 rod antenna coupler info

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 11:58:05 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <neqdnQoW7NPWhvrZ4p2dnA@comcast.com>
Source record: 59537

Dave Rude wrote:

> Greetings,
> I have come by a Singer Stoddart 94592-1 rod antenna coupler. It is a cube
> about 4.5" is green and has a telescoping antenna on top affixed by a screw
> on BNC type connector. The output is BNC and there are two binding posts
> for B+ input I believe. I haven't been able to find a thing on the www
> about this device, although, i did see one listed on ebay once for big
> bucks. Does anyone have any info on this device they would share with me?
> The device is for H.F.
> Dave - KA9SRU
> dave.rude@sbcglobal.net
> Thanks
>
>

An EM specialist may shed more light on this subject.

Twenty years ago, when I managed an EM lab among other responsibilities, Singer Stoddart was the #1 supplier of laboratory quality EM measuring devices. They designed and sold EM test instruments including receivers, antennas, couplers, that were traceable to NBS primary standards.

I suspect you have a very expensive coupler for a receiving dipole for measuring radiated EM noise fields.

[For about $40,000 you may find a Singer Stoddart receiver and antenna set to use with it <g>].

Any professional EMers out there??

2397. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 14:02:57 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <IMG9g.5983$fb2.1454@newssvr27.news.prodigy.net>
Source record: 59538

Dave wrote:
> so
> why do we go through all this stuff with bal-uns?? and coax chokes?? the
> currents are already balanced, so WHY?? come on you gurus out there,
> explain this one!

Water comes out of a hose whether the hose is leaky or not.
So why ever bother patching or replacing a leaky hose?
--
73, Cecil http://www.qsl.net/w5dxp

2398. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 14:03:36 UTC
From: Heinrich <H.W.B@waterboard.gov>
Message-ID: <126ee5oqvsuhia3@corp.supernews.com>
Source record: 59539
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Short Circuit wrote:
>
> "Dr.Death" <drdeath555usb@nospam.yahoo.com> wrote in
> news:1262mh57s1pubbf@corp.supernews.com:
>
> > "Signal Chaser" <em@il.here> wrote in message
> > news:1w88g.2089$u4.1888@newsread1.news.pas.earthlink.net...
> >> "an old friend" <kb9rqz@hotmail.com> wrote in
> >> news:1147190746.045447.54120@e56g2000cwe.googlegroups.com:
> >>
> >>>
> >>> Sinpo Code wrote:
> >>>> Lancer <lancer@rock.com> wrote in
> >>>> news:08ed42plsgq488ftdvblgr0hv6eqikboph@news.easynews.com:
> >>>>
> >>>
> >>>>
> >>>> I don't remember who was all in it, but one guy kept dropping the
> >>>> soldering iron on the ground in front of people, then he'd bend over
> >>>> slowly to pick it up again like he was hoping someone might give him
> >>>> a poke. Disgusting.
> >>>>
> >>> how is any that the ARRL's fault
> >>
> >>
> >> ARRL threw principle out the window when they caved in to the demands
> >> of the Lambda Amateur Radio Club (LARC). It was a sad day for me
> >> indeed when I opened my beloved QST magazine and there on the pages
> >> were photos of queers on a Tropical DXpedition, and in living color no
> >> less. The ARRL wanted us to embrace a sick perverted lifestyle and be
> >> one big happy family. To me, it was the spark that signaled the death
> >> of a once proud organization, and it turned liberal.
> >>
> >>
> >> SC
> >
> > What I don't get is why we are forced to see
> > homosexuality in areas that have nothing to do with sex, such as the
> > example you mentioned.
>
> Radical militant homosexuality coupled with uncontroled liberalism.
>

> sc

Crossbreed them with radical militant evangelicals coupled with
uncontrolled conservatism and you get neo-cons.

2399. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 14:41:24 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <okH9g.59272$Fs1.35272@bgtnsc05-news.ops.worldnet.att.net>
Source record: 59540

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> However, there is not one bit of additional physical information in
>> the traveling waves that is not in the standing wave.
>
>
> I agree with you but W8JI and W7EL have rejected the concept that
> there is any phase information in the standing wave current magnitude.
> They have rejected any use of the arc-cosine function in calculating
> that phase. The following graphs show the difference in the standing
> wave current and the traveling wave current.
>
> http://www.qsl.net/w5dxp/travstnd.GIF
>
> The standing wave current phase contains zero phase information
> as you have stated. As you say, all the standing wave current
> phase information is contained in the magnitude but the arc-cosine
> function for obtaining that phase information has been rejected by
> the experts. For the traveling wave, there is phase information
> contained in the phase, none in the magnitude.
>
> Every time you make a technical assertion, you support my argument.
> Seems your argument is really with the side that rejects the arc-
> cosine function for obtaining phase information.

Cecil,

You still don't get it.

When I said the phase information was gone, I meant it. Any phase information you think you find by looking at the constituent traveling waves is merely an artifact of the math. It has no physical meaning or reality. If there is anything interesting left in the traveling wave analysis, then the standing wave is not the complete representation of the electromagnetic phenomena. This is a different problem.

Yes, you can apply modulation, insert directional couplers, look at startup transients, or perform other tricks to get "real" phase information. However, that again becomes a different problem, not the original simple steady-state combination of traveling waves into a standing wave.

73,
Gene
W4SZ

2400. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 15:14:34 UTC
From: Richard Crowley <rcrowley@xpr7t.net>
Message-ID: <126eiaq5j9ju4d8@corp.supernews.com>
Source record: 59542
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

"Heinrich" wrote ...
> Crossbreed them with radical militant evangelicals

"radical militant evengelicals"? You mean like the
Salvation Army? Yeah. Good for Target to get rid of
those wackos with their dangerous metal tripods and
fake plastic kettles full of nickles and dimes.

2401. Re: Singer Stoddart 94592-1 rod antenna coupler info

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 16:36:39 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <oeadnbjwAeMIwfrZnZ2dnUVZ_uWdnZ2d@comcast.com>
Source record: 59543

Dave wrote:

> Dave Rude wrote:
>
>> Greetings,
>> I have come by a Singer Stoddart 94592-1 rod antenna coupler. It is a
>> cube about 4.5" is green and has a telescoping antenna on top affixed
>> by a screw on BNC type connector. The output is BNC and there are two
>> binding posts for B+ input I believe. I haven't been able to find a
>> thing on the www about this device, although, i did see one listed on
>> ebay once for big bucks. Does anyone have any info on this device
>> they would share with me? The device is for H.F.
>> Dave - KA9SRU
>> dave.rude@sbcglobal.net
>> Thanks
>>
>
> An EM specialist may shed more light on this subject.
>
> Twenty years ago, when I managed an EM lab among other responsibilities,
> Singer Stoddart was the #1 supplier of laboratory quality EM measuring
> devices. They designed and sold EM test instruments including receivers,
> antennas, couplers, that were traceable to NBS primary standards.
>
> I suspect you have a very expensive coupler for a receiving dipole for
> measuring radiated EM noise fields.
>
> [For about $40,000 you may find a Singer Stoddart receiver and antenna
> set to use with it <g>].
>
> Any professional EMers out there??
>
>

As I read my earlier post, it comes to mind that the matching receiver
was an NM-40A ... quite expensive in the mid 80s.

2402. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 17:00:19 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <%mJ9g.21$Lz2.13@fe10.lga>
Source record: 59544

RoomCap Antenna web site proclaims:

"A new, revolutionary design allows the construction of small HF antennas, which provide the same efficiency as large antennas."

Throw in the perpetuum mobile and the picture is complete.
Imagine, for over 100 years we were stuck on stupid and using them unsightly, large antennas.

Viva Zapata, Viva la revolucion!

With all them revolutionary antennas arriving on radio landscape I am ashamed of using them biiiig ugly antennas, when I could have used all those miracle whip designs and doubled my contest scores.
Time to make room for the new wizards of antenna magique and humbly tear down unsightly monsters and put up 174 cm miracle whips.

BTW I have discovered way of shrinking RoomCap Antenna (it's called BUmTenna) on the same principle down to 1/10 size and blew the receiver front ends in the whole Warsaw Pact. I had to put attenuators in the feedline in order to protect NATO receivers. I have a CD with detailed information, Brooklyn bridge drawings are also included as well as swamp land in Sahara.

Standby for the patent fights between Freaktenna, EHtenna, Univ of RItenna, RoomCrapTenna, ???tenna

Happy Mother's Day to all mothers who did not abort us!

Yuri da BUm

2403. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 17:37:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126eqnnmqomh898@corp.supernews.com>
Source record: 59545

Toni wrote:
> En/na Roy Lewallen ha escrit:
>> EA3FYA - Toni wrote:
>>>
>>> I know that a coax cable does not radiate (if common mode currents
>>> properly suppressed) because both conductors are apparently "in the
>>> same place" (wouldn't know how to express it in more technical terms).
>>
>> Here's why it doesn't radiate: In a coaxial cable with a solid shield,
>> the differential mode current is entirely inside the shield. Current
>> and fields penetrate only a very small distance from the inner surface
>> of the shield, and no significant amount ever makes it through to the
>> outside. This is assuming that the shield is at least several skin
>> depths thick, which is a good assumption at HF and above.
>
> When you say "Current and fields penetrate only a very small
> distance...", I agree for the current part, but I'm not so sure for the
> fields part:
>
> As I understand it you can not "stop a field" in no way, though you can
> certainly nullify it with an identical but opposite field.

You bet you can stop a field. It can be stopped either by reflection, absorption, or a combination of the two. Inside an anechoic chamber, absorbing materials stop internal fields to prevent reflections. A screen room or metallic shield reflects external fields.

> Then the question is whether the two fields (the one from the current
> flowing in the shield + the one from the current flowing in the inner
> conductor) nullify at all points in the immediate vicinity of the
> shield. I certainly believe it but would like to understand why this is so.

Indeed they do. Look up Ampere's Law. If you draw a boundary through the middle of the shield or outside the shield, you'll find that the sum of currents within that boundary is zero. According to the law, that means that no net field penetrates the boundary. Because of the physical symmetry, no net field means no field at all.

> I guess the mathematical proof would involve assuming the braid is an
> infinite number of conductors equally spaced around the center
> conductor, each having it's infinitesimal share of the shield current,
> and integrating all of their fields at the point of interest (Would
> probably be able to do so back when I was at university but now it is
> too strong math for me). Would this be a good approximation of the problem?

No, it's not that complicated, but a path or surface integration is required to use Ampere's law.

Roy Lewallen, W7EL

2404. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 17:43:19 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126er1prc6uuj88@corp.supernews.com>
Source record: 59546

Toni wrote:
> Thanks four your answers.
>
> I was forgetting you normally use coax in a unbalanced configuration
> where the braid is supposed to be at 0 voltage so only currents matter.

How do you define "0 voltage"? Do a groups.google.com search of this newsgroup and you'll find quite a bit of discussion about the futility of trying to define a voltage between two distant points in the presence of a field.

> Would all this still hold if you used the coax as a _balanced_
> transmission line? (unusual but -I think- possible). In this case
> wouldn't voltages develop on the braid that could capacitively couple to
> other conductors?
>
> (assuming perfect solid shield, ...)

A coax line is balanced when the common mode current is zero. It's unbalanced when common mode current exists. See http://eznec.com/Amateur/Articles/Baluns.pdf for more information.

Voltages don't couple, fields do.

There was also some discussion not too long ago on this group about the role of current in generating both electric and magnetic fields.

Roy Lewallen, W7EL

2405. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 17:47:09 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126er90kle5u20@corp.supernews.com>
Source record: 59547

Dave wrote:
> the voltage on the braid is not zero on the inside, it varies along with the
> wave traveling along the inside of the coax. and the currents are exactly
> balanced inside the coax also, they have to be or it wouldn't work. this
> notion of balanced vs un-balanced transmission lines is totally confusing to
> most people, in a proper system, say just with a dummy load on a coax the
> currents on the shield exactly balance the current on center conductor. so
> why do we go through all this stuff with bal-uns?? and coax chokes?? the
> currents are already balanced, so WHY?? come on you gurus out there,
> explain this one!

The currents on the inside are always balanced -- they're purely differential mode. The purpose of baluns or common mode chokes is to reduce the common mode current which, on coax, flows entirely on the outside.

If you're driving a dummy load from your transmitter, the common mode current will be zero in an ideal system and negligible in a real system. A balun or common mode choke will do nothing in that situation.

See http://eznec.com/Amateur/Articles/Baluns.pdf for a more complete explanation.

Roy Lewallen, W7EL

2406. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 17:57:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ucK9g.70576$_S7.34598@newssvr14.news.prodigy.com>
Source record: 59548

Gene Fuller wrote:
> Cecil, You still don't get it.

I get what you said. Here it is again.

Gene Fuller wrote:
> The only "phase" remaining is the cos (kz) term, which is really
> an amplitude description, not a phase.

So you alluded to phase information in the standing wave
current amplitude.

> When I said the phase information was gone, I meant it.

But you also said:

Gene Fuller wrote:
> However, there is not one bit of additional physical information
> in the traveling waves that is not in the standing wave.

We know that there is phase information in the traveling waves.
So for your statement to be true, there has to be phase information
in the standing wave.

Both of your statements cannot be true. Which one are you
willing to stick with and which one are you going to retract?

If you look at: http://www.qsl.net/w5dxp/travstnd.GIF
you will see that the standing wave amplitude is indeed
a cosine function of the phase. Taking the arc-cosine
of the normalized amplitude yields the phase angle.

I'm sorry, but you have contradicted yourself a couple of times
so I don't know which assertion you want to go with.
--
73, Cecil http://www.qsl.net/w5dxp

2407. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 18:02:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126es62f6v3lp79@corp.supernews.com>
Source record: 59549

Gene Fuller wrote:
> Cecil Moore wrote:
>> Gene Fuller wrote:
>>
>>> However, there is not one bit of additional physical information in
>>> the traveling waves that is not in the standing wave.
>>
>>
>> I agree with you but W8JI and W7EL have rejected the concept that
>> there is any phase information in the standing wave current magnitude.
>> They have rejected any use of the arc-cosine function in calculating
>> that phase. The following graphs show the difference in the standing
>> wave current and the traveling wave current.
>>. . .

Egad. Of course I reject the notion that there's "phase information in the standing wave current magnitude". Magnitude and phase are orthogonal. There's no phase in the magnitude and no magnitude in the phase. There's no real portion of the imaginary part and no imaginary portion of the real part. I haven't a clue what you mean by "use of the arc-cosine,function to calculate that phase", but I certainly reject any method that assigns a phase value to a magnitude or vice versa. I get the total voltage or current simply by adding the traveling waves. No trig functions necessary, just simple vector addition.

Traveling waves have phase information. In a steady state system they can be expressed as phasors, which consist of a magnitude, a time phase reference value, and an implicit time varying time rotation. When you add them to get the total (which Cecil likes to characterize as a standing wave as though it's something different than just the total voltage or current), you get the simple vector sum of the constituent traveling waves. This sum is also a phasor, with magnitude, time phase reference value, and the same implicit time varying phase rotation.

In summary, both traveling waves and the total voltage or current are phasors, and both have phase.

What's so complicated about adding a couple of phasors? Cecil, you need to go back and read, and understand, your freshman circuit analysis text.

What a bunch of irrational smoke and mirrors.

I don't care less what Cecil will make of this. But Gene, do you really disagree with what I've just said?

Roy Lewallen, W7EL

2408. Re: I blame the ARRL for all the homosexual posts. Please Read.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 18:14:34 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4467738A.4070004@fuse.net>
Source record: 59550
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb,rec.radio.shortwave

Richard Crowley wrote:
> "Heinrich" wrote ...
>
>> Crossbreed them with radical militant evangelicals
>
>
> "radical militant evengelicals"? You mean like the
> Salvation Army? Yeah. Good for Target to get rid of those wackos with
> their dangerous metal tripods and
> fake plastic kettles full of nickles and dimes.
I think Pat Robertson, Jerry Falwell and their ilk fill the bill. Also
Former Attorney General John Ashcroft (but what a GREAT singer!)

2409. 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 20:34:44 UTC
From: Sonny Hood <wrhood@cox.net>
Message-ID: <5s4f621a8pote7880r9vhccbmagtlvatha@4ax.com>
Source record: 59551

I have an antenna that needs 100 ohm twin lead to match the impedance
of the feed point. The 450 ohm lead has messed up the match and
screwed up the resonance, does anone know of such an animal?
K4WYS

2410. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 20:50:36 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <wKM9g.4883$Sh3.4331@trnddc05>
Source record: 59552

"Sonny Hood" <wrhood@cox.net> wrote in message
news:5s4f621a8pote7880r9vhccbmagtlvatha@4ax.com...
>I have an antenna that needs 100 ohm twin lead to match the impedance
> of the feed point. The 450 ohm lead has messed up the match and
> screwed up the resonance, does anone know of such an animal?
> K4WYS

Hi Sonny

Would you consider using two lengths of 50 ohm coax, side by side?

Jerry

2411. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 20:51:11 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <WMidnS3zSbKgBfrZnZ2dnUVZ_v-dnZ2d@comcast.com>
Source record: 59553

Sonny Hood wrote:

> I have an antenna that needs 100 ohm twin lead to match the impedance
> of the feed point. The 450 ohm lead has messed up the match and
> screwed up the resonance, does anone know of such an animal?
> K4WYS

Sonny, the feedline cannot and does not have any influence on the
resonance of an antenna. Resonance is determined by the physical
dimensions of the antenna itself.

Tell us about the antenna. How did you determine a 100 ohm input impedance?

72 ohm twin lead is available at selected suppliers. But, I am not aware
of anyone making 100 ohm twin lead. that's why I asked about the 100 ohm
value.

2412. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 20:59:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gTM9g.86745$dW3.8980@newssvr21.news.prodigy.com>
Source record: 59554

Roy Lewallen wrote:
> Egad. Of course I reject the notion that there's "phase information in
> the standing wave current magnitude".

And, of course, you are showing your ignorance. Let's say that
at the current maximum point, the forward current is 0.5 at 0 deg
and the reflected current is 0.5 at 0 deg. The standing wave
current at the current maximum point is 1.0 at 0 deg just like
a cosine function is 1.0 at 0 deg.

Now let's go 45 degrees away from that current maximum point. The
forward current is 0.5 at -45 deg and the reflected current is
0.5 at +45 deg so the standing wave current is 0.707 at 0 deg.

The magnitude of the standing wave current is 0.707. The arc-
cosine of 0.707 is 45 degrees. Do you really and truly believe
that is just a coincidence? Exactly as Gene Fuller said previously,
there is phase information in the standing wave current magnitude.

Here's a quote from Gene:

> Gene Fuller wrote:
>> The only "phase" remaining is the cos (kz) term, which is really
>> an amplitude description, not a phase.

Your statement above is in direct contradiction to Gene's statement.

> What's so complicated about adding a couple of phasors?

I suspect you know how to add phasors. I suspect you don't have
a clue what that answer means in reality. Please try to convince
us that the 0.707 result above for a 45 degree shift is sheer
coincidence.
--
73, Cecil http://www.qsl.net/w5dxp

2413. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 21:01:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <5VM9g.86746$dW3.76276@newssvr21.news.prodigy.com>
Source record: 59555

Sonny Hood wrote:

> I have an antenna that needs 100 ohm twin lead to match the impedance
> of the feed point. The 450 ohm lead has messed up the match and
> screwed up the resonance, does anone know of such an animal?
> K4WYS

Use side-by-side runs of 50 ohm coax to achieve a balanced Z0
of 100 ohms. Tie the braids together at both ends.
--
73, Cecil http://www.qsl.net/w5dxp

2414. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 21:09:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <x0N9g.86749$dW3.29542@newssvr21.news.prodigy.com>
Source record: 59556

Dave wrote:
> Sonny, the feedline cannot and does not have any influence on the
> resonance of an antenna. Resonance is determined by the physical
> dimensions of the antenna itself.

Feedline length has every influence on the resonance of
an antenna system if the SWR is not 1:1.

Why is a G5RV resonant on 3.7 MHz when a 102 foot dipole
is resonant on 4.6 MHz?

Truth is that the feedline can be used to resonate the
antenna system. I resonate my 130 ft. dipole on any HF
band by varying the length of the feedline. Check it out
at: http://www.qsl.net/w5dxp/notuner.htm
--
73, Cecil http://www.qsl.net/w5dxp

2415. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 21:15:03 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <r5N9g.60233$Fs1.9174@bgtnsc05-news.ops.worldnet.att.net>
Source record: 59557

Roy Lewallen wrote:

> I don't care less what Cecil will make of this. But Gene, do you really
> disagree with what I've just said?
>
> Roy Lewallen, W7EL

Roy,

I do not disagree with anything you have said. Cecil is up to his standard trick of selective quoting along with a subtle change of topic to make it appear that there are conflicts when there are none.

I am sure Cecil will find some other quote to remove from context in order to prove me wrong.

73,
Gene
W4SZ

2416. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 21:27:32 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <8hN9g.100234$eR6.58277@bgtnsc04-news.ops.worldnet.att.net>
Source record: 59558

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Cecil, You still don't get it.
>
>
> I get what you said. Here it is again.
>
> Gene Fuller wrote:
> > The only "phase" remaining is the cos (kz) term, which is really
> > an amplitude description, not a phase.
>
> So you alluded to phase information in the standing wave
> current amplitude.
>
>> When I said the phase information was gone, I meant it.
>
>
> But you also said:
>
> Gene Fuller wrote:
>
>> However, there is not one bit of additional physical information
>
> > in the traveling waves that is not in the standing wave.
>
> We know that there is phase information in the traveling waves.
> So for your statement to be true, there has to be phase information
> in the standing wave.
>
> Both of your statements cannot be true. Which one are you
> willing to stick with and which one are you going to retract?
>
> If you look at: http://www.qsl.net/w5dxp/travstnd.GIF
> you will see that the standing wave amplitude is indeed
> a cosine function of the phase. Taking the arc-cosine
> of the normalized amplitude yields the phase angle.
>
> I'm sorry, but you have contradicted yourself a couple of times
> so I don't know which assertion you want to go with.

Cecil,

I have not contradicted myself, and I have nothing to retract. Only in
your imagination is there any useful phase information in the traveling

waves that make up a standing wave. There can be other waves that don't exactly balance out into a standing wave, but that is another topic.

I am not sure to whom the "we" refers in your statement, "We know that there is phase information in the traveling waves." Perhaps that is the Royal We, because it certainly does not include me. The phase information you might find is of no use, and it is simply an artifact of the mathematical analysis.

If the standing wave adequately and completely describes the electromagnetic situation, then there is no additional available from an arbitrary decomposition in traveling waves. If you try to look at the traveling waves one at a time, then you are no longer considering a standing wave.

73,
Gene
W4SZ

2417. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 21:43:53 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126f94r9bqkac5a@corp.supernews.com>
Source record: 59559

Buck wrote:
> . . .
> If it performs as well as you claim it does, or if it is similar to
> the performance of an EH per size,(for example, hypothetically
> speaking, a 3 foot antenna performs as well as a 1/2 wave vertical 20
> meter antenna), and if the cost and skill level required for building
> the antenna is suitable to me, I might be interested in purchasing the
> plans for your antenna.
> . . .

You must mean, "If it performs as well as the EH antenna claims to perform." If it can do that, it's miraculous indeed. It's no trick to make an antenna perform as well as an EH -- a 3 foot high (fat) vertical performs as well as a 3 foot high EH.

Roy Lewallen, W7EL

2418. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 21:50:09 UTC
From: Dave <noone@nowhere.com>
Message-ID: <ENydnZMolYyBO_rZ4p2dnA@crocker.com>
Source record: 59560

"Gene Fuller" <W4SZzzzzzz@att.net> wrote in message
news:8hN9g.100234$eR6.58277@bgtnsc04-news.ops.worldnet.att.net...
> Cecil Moore wrote:
>> Gene Fuller wrote:
>>
>>> Cecil, You still don't get it.
>> I get what you said. Here it is again.
>> So you alluded
>>> I meant it.
>> But you also said:
>>> there is not one bit of additional physical information
>> So for your statement to be true, there has to be Both of your statements
>> cannot be true. Which one are you
>> willing to stick with and which one are you going to retract?
>> If you look at
>> I'm sorry, but you have contradicted yourself a couple of times
>> so I don't know which assertion you want to go with.
> I have not contradicted myself, and I have nothing to retract. but that is
> another topic.
> I am not sure to whom the "we" refers in your statement,
> Perhaps that is the Royal We, because it certainly does not include me.
> there is no additional available from

COME ON! KEEP IT GOING!! this rainy wet weekend is almost over and I could use one more good round of laughter!! Perhaps we cut straight to the conclusion and have something that is completely a personal attack devoid of any possible technical statements, that would do nicely! DON'T STOP NOW!

2419. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 22:12:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9XN9g.76727$H71.67318@newssvr13.news.prodigy.com>
Source record: 59561

Gene Fuller wrote:
> I do not disagree with anything you have said.

Please answer this question. Does the amplitude of the
standing wave current contain any phase information?

You have previously asserted that it does. Roy says
it doesn't. Time to chose between technical fact
and agreeing with your friend (who is technically
incorrect).
--
73, Cecil http://www.qsl.net/w5dxp

2420. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 22:18:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <R0O9g.76730$H71.1190@newssvr13.news.prodigy.com>
Source record: 59563

Gene Fuller wrote:
> I have not contradicted myself, ...

Either the standing wave current magnitude contains phase
information, as you previously asserted, or it doesn't.
I'll make it easy for you. Just insert an 'X' for the one
you agree with.

_____ Standing wave current magnitude contains some phase
information.

_____ Standing wave current magnitude contains zero phase
information.
--
73, Cecil http://www.qsl.net/w5dxp

2421. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 22:19:20 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <mjaf62dj2jml097hjoucmo33uamk73e0na@4ax.com>
Source record: 59562

On Sun, 14 May 2006 16:34:44 -0400, Sonny Hood <wrhood@cox.net> wrote:

>I have an antenna that needs 100 ohm twin lead to match the impedance
>of the feed point. The 450 ohm lead has messed up the match and
>screwed up the resonance, does anone know of such an animal?

To answer your specific question, ZIP cord is close to 100 ohms Zo.
However, it is relatively lossy (~3.5dB/100' at 10MHz).

K8ZOA measured ZIP cord characteristics and reported them here a year
of three back, Google for the info.

There were commercial low impedance twin lines for RF use, but they
are now obsolete (for good reason).

Owen
--

2422. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 22:20:49 UTC
From: jgboyles@aol.com
Message-ID: <1147645249.070689.248820@g10g2000cwb.googlegroups.com>
Source record: 59564

Cecil Moore wrote:
> Sonny Hood wrote:
>
> > I have an antenna that needs 100 ohm twin lead to match the impedance
> > of the feed point. The 450 ohm lead has messed up the match and
> > screwed up the resonance, does anone know of such an animal?
> > K4WYS
>
> Use side-by-side runs of 50 ohm coax to achieve a balanced Z0
> of 100 ohms. Tie the braids together at both ends.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Sounds like he may be trying to match a Quad or a Loop. If I am not
mistaken, the usual way to do this is with a 75 ohm Q section.
Side-by-side runs of 50 ohm coax with the braid tied together will
yield 25 ohms because they are in parallel. Not 100 ohms. Or do I
need to dive back into the antenna book?
Gary N4AST

2423. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 22:23:17 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <p5O9g.76731$H71.39912@newssvr13.news.prodigy.com>
Source record: 59565

Roy Lewallen wrote:
> Egad. Of course I reject the notion that there's "phase information in
> the standing wave current magnitude".

I should have provided a reference in my earlier posting. Your
above statement disagrees with Kraus. On page 464 of "Antennas
for All Applications", 3rd edition, Kraus shows the relative
current amplitude for a 1/2WL thin-wire dipole. He says on that
page that the magnitude is a sinusoidal function.

Would you care to explain how a sinusoidal magnitude function
is NOT associated with phase?

For everyone else: Roy had ploinked me so he never sees my
references. Therefore, he disagrees with Kraus over and over
and over.
--
73, Cecil http://www.qsl.net/w5dxp

2424. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 23:03:52 UTC
From: Dave <noone@nowhere.com>
Message-ID: <0_mdnYk1ptr4KvrZRVn-iw@crocker.com>
Source record: 59566

better get out the snorkle... if you tie the braid and the center conductor
together you get a 25 ohm line, i use that all the time for my stack
matching boxes.

<jgboyles@aol.com> wrote in message
news:1147645249.070689.248820@g10g2000cwb.googlegroups.com...
> Cecil Moore wrote:
>> Sonny Hood wrote:
>>
>> > I have an antenna that needs 100 ohm twin lead to match the impedance
>> > of the feed point. The 450 ohm lead has messed up the match and
>> > screwed up the resonance, does anone know of such an animal?
>> > K4WYS
>>
>> Use side-by-side runs of 50 ohm coax to achieve a balanced Z0
>> of 100 ohms. Tie the braids together at both ends.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
> Sounds like he may be trying to match a Quad or a Loop. If I am not
> mistaken, the usual way to do this is with a 75 ohm Q section.
> Side-by-side runs of 50 ohm coax with the braid tied together will
> yield 25 ohms because they are in parallel. Not 100 ohms. Or do I
> need to dive back into the antenna book?
> Gary N4AST
>

2425. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 23:22:31 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <FeudnT7btLYoJvrZnZ2dnUVZ_tmdnZ2d@comcast.com>
Source record: 59567

Cecil Moore wrote:

> Dave wrote:
>
>> Sonny, the feedline cannot and does not have any influence on the
>> resonance of an antenna. Resonance is determined by the physical
>> dimensions of the antenna itself.
>
>
> Feedline length has every influence on the resonance of
> an antenna system if the SWR is not 1:1.
>

C'mon Cecil, you know better!

The antenna is resonant 100% by itself.

100 feet of wire is resonant within a few KHz of 4.68 MHz. Period.
120 feet of wire is resonant at ~ 3.9 MHz. Period.
65 feet of wire is resonant at ~ 7.2 MHz. Period.
33 feet of wire is resonant at ~ 14.2 MHz. Period.

You are tuning a non resonant antenna to resonance with your stubs.

You changed the scope of the discussion with the exact wording of your
response. You used "antenna system". I used "antenna".

Why do you persist in comparing alligators and kittens?

2426. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 23:36:56 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <saP9g.6376$fb2.2108@newssvr27.news.prodigy.net>
Source record: 59568

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> Egad. Of course I reject the notion that there's "phase information in
>> the standing wave current magnitude".
>
>
> I should have provided a reference in my earlier posting. Your
> above statement disagrees with Kraus. On page 464 of "Antennas
> for All Applications", 3rd edition, Kraus shows the relative
> current amplitude for a 1/2WL thin-wire dipole. He says on that
> page that the magnitude is a sinusoidal function.
>
> Would you care to explain how a sinusoidal magnitude function
> is NOT associated with phase?
>
> For everyone else: Roy had ploinked me so he never sees my
> references. Therefore, he disagrees with Kraus over and over
> and over.

What is a "sinusoidal magnitude function," Cecil? I don't have
Kraus, so I'll take your word for it that he wrote that the current
on a 1/2 WL thin wire dipole can be represented as a sine function.
Good. I can now throw away my EZNEC. I doubt very much if any of
the people who disagree with you really write anything that
contradicts Kraus or any of the other textbook writers. Selective
quoting is another low trick you like to play, Cecil. You must have
learned it in Bible class.
73,
Tom Donaly, KA6RUH

2427. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 23:40:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <FdP9g.86780$dW3.79318@newssvr21.news.prodigy.com>
Source record: 59569

Dave wrote:
> The antenna is resonant 100% by itself.

Most knowledgeable people know that the resonant frequency
of the antenna system can be changed by the length of the
transmission line series matching section. Why don't you
know that? Here is the SWR of my 130 foot dipole antenna
on 40m achieved by varying the length of the 450 ohm
transmission line.

http://www.qsl.net/w5dxp/swr13040.gif

Please look at that graph and then tell us that the feedline
cannot tune the antenna system to resonance.
--
73, Cecil http://www.qsl.net/w5dxp

2428. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 23:46:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gjP9g.86783$dW3.49022@newssvr21.news.prodigy.com>
Source record: 59570

Tom Donaly wrote:
> What is a "sinusoidal magnitude function," Cecil?

Y = sin(X)

The magnitude 'Y' is equal to the sine of an angle,
'X', in degrees.

Wouldn't you agree with me that it is ridiculously
ignorant to assert that the magnitude 'Y' has nothing
to do with the phase angle 'X', i.e. that there's no
"phase information in the ... magnitude".
--
73, Cecil http://www.qsl.net/w5dxp

2429. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-14 23:50:15 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <XmP9g.86786$dW3.78095@newssvr21.news.prodigy.com>
Source record: 59571

Dave wrote:
> better get out the snorkle... if you tie the braid and the center conductor
> together you get a 25 ohm line, i use that all the time for my stack
> matching boxes.

Nobody said anything about tying the braid and center conductor
together. If the side by side run of 50 ohm coax is used as a
parallel feedline, the braids are tied together and the Z0
is 100 ohms when the center conductors are connected across
the load.
--
73, Cecil http://www.qsl.net/w5dxp

2430. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 01:20:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126flrqsbm3ij98@corp.supernews.com>
Source record: 59572

Tom Donaly wrote:
> Cecil Moore wrote:
>>
>> For everyone else: Roy had ploinked me so he never sees my
>> references. Therefore, he disagrees with Kraus over and over
>> and over.

I don't recall ever having disagreed with anything I've read in Kraus. I do, however, frequently disagree with the misinterpretations and misquotations of Kraus and many other references which Cecil has made.

His frequent claims of "If you disagree with me, you disagree with [Kraus, Maxwell, Balanis, Hecht, Heaviside, Terman, God, whoever] are total baloney (to use a much kinder term than it deserves).

Yes, I plonked Cecil a couple of years ago. Seeing only the occasional text quoted by others of his bizarre ramblings is more than enough. Those which I do see reinforce my belief that I'm certainly not missing anything of technical or educational merit.

Roy Lewallen, W7EL

2431. Dayton

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 01:23:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126fm0di32b9he3@corp.supernews.com>
Source record: 59573

If you're going to Dayton this year, please stop by and say hello. I'll be at my usual spot, booth 514 (listed in the index under "W7EL Software").

Roy Lewallen, W7EL

2432. OT: Liscensing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 01:34:07 UTC
From: CW <s@earthlink.net>
Message-ID: <jUQ9g.4641$u4.4071@newsread1.news.pas.earthlink.net>
Source record: 59574

Not on the subject of antennas but people on this group would know. I let my license expire about three months ago. Was meaning to renew but never did. Now that I have let it go this far, who do I see to renew this thing. Hopefully won't have to test again. Not that would be a problem, just more of a time thing. Haven't been on the air in years but would like the option of doing so. Thanks for any input.

2433. Re: Liscensing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 01:38:24 UTC
From: Uncle Pete <radioconnectionNO@SPAMcox.net>
Message-ID: <AYQ9g.59740$IZ2.3019@dukeread07>
Source record: 59575

"CW" <s@earthlink.net> wrote in message
news:jUQ9g.4641$u4.4071@newsread1.news.pas.earthlink.net...
> Not on the subject of antennas but people on this group would know. I let
> my
> license expire about three months ago. Was meaning to renew but never did.
> Now that I have let it go this far, who do I see to renew this thing.
> Hopefully won't have to test again. Not that would be a problem, just more
> of a time thing. Haven't been on the air in years but would like the
> option
> of doing so. Thanks for any input.
>
You'll need to jump through a few hoops on the FCC website, you will need to register with the FCC before you can renew. While you can't operate, your well within the time limits before the license becomes nonrenewable. Some of the VEC groups will do the renewal for you for a small fee if the FCC website becomes too daunting. I think w5yi charges about 15 bucks...

Pete

2434. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 01:57:29 UTC
From: "g. beat"
Message-ID: <N8-dnbwe4b6QffrZnZ2dnUVZ_vednZ2d@comcast.com>
Source record: 59426

"Sonny Hood" <wrhood@cox.net> wrote in message
news:5s4f621a8pote7880r9vhccbmagtlvatha@4ax.com...
>I have an antenna that needs 100 ohm twin lead to match the impedance
> of the feed point. The 450 ohm lead has messed up the match and
> screwed up the resonance, does anone know of such an animal?
>
> K4WYS

As I remember, common lamp "zip" cord (AWG 18 or 16) functions at about that
Z (I'll have to check)

gb

2435. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 02:58:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <S7S9g.72404$F_3.63737@newssvr29.news.prodigy.net>
Source record: 59427

Roy Lewallen wrote:
> I don't recall ever having disagreed with anything I've read in Kraus.

Your posting below disagrees with the information on page 464
of "Antennas for all Applications", 3rd edition.

> Of course I reject the notion that there's "phase information in the
> standing wave current magnitude".

The standing wave current magnitude is sinusoidal, according
to Kraus. How can you possibly have a sinusoidal wave without
an associated phase angle?

For a 1/2WL thin-wire dipole:
If the source current is 1.0 at 0 deg at t=0, the magnitude
of the standing wave current is cos(X) where X is the number
of degrees from the source. Your statement that there is no
phase information in a cosine function is absolutely false.

In fact, in the above example the arc-cosine of the standing
wave magnitude is the phase angle of the reflected current.
The negative of that angle is the phase angle of the forward
current.
--
73, Cecil http://www.qsl.net/w5dxp

2436. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 03:26:45 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97C3CFFBE524Edoldridgsprintca@64.59.135.159>
Source record: 59428

Cecil Moore <mycall@hotmail.com> wrote in news:x0N9g.86749$dW3.29542
@newssvr21.news.prodigy.com:

> Dave wrote:
>> Sonny, the feedline cannot and does not have any influence on the
>> resonance of an antenna. Resonance is determined by the physical
>> dimensions of the antenna itself.
>
> Feedline length has every influence on the resonance of
> an antenna system if the SWR is not 1:1.
>
> Why is a G5RV resonant on 3.7 MHz when a 102 foot dipole
> is resonant on 4.6 MHz?
>
> Truth is that the feedline can be used to resonate the
> antenna system. I resonate my 130 ft. dipole on any HF
> band by varying the length of the feedline. Check it out
> at: http://www.qsl.net/w5dxp/notuner.htm

All true, but there isn't much difference between a G5RV and a 102 foot
dipole fed with 450 ohm line to a good balanced tuner.

Back years ago I had a very effective vee dipole antenna for 80m that was
composed of two identical wires from the top of my third story shack
window insulated and tied off to trees and shrubbery. I fed it with
home-made 600 ohm line, about six feet long and tapped it directly off
the tank coil of my amplifier. It was LOUD all over the Pacific, South
America, audible in Africa, but for some reason, nothing from Europe!

--
Dave Oldridge+
ICQ 1800667

2437. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 03:38:49 UTC
From: Buck <not@this.time>
Message-ID: <frtf62dsgjgep5bkkqkct4d7oefklbtni6@4ax.com>
Source record: 59429

On Sun, 14 May 2006 14:43:53 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Buck wrote:
>> . . .
>> If it performs as well as you claim it does, or if it is similar to
>> the performance of an EH per size,(for example, hypothetically
>> speaking, a 3 foot antenna performs as well as a 1/2 wave vertical 20
>> meter antenna), and if the cost and skill level required for building
>> the antenna is suitable to me, I might be interested in purchasing the
>> plans for your antenna.
> > . . .
>
>You must mean, "If it performs as well as the EH antenna claims to
>perform." If it can do that, it's miraculous indeed. It's no trick to
>make an antenna perform as well as an EH -- a 3 foot high (fat) vertical
>performs as well as a 3 foot high EH.
>
>Roy Lewallen, W7EL

You got it right. I take it you aren't a fan of the EH design? ;)

I would love to see the EH and the RoomCap in an antenna shootout
against the screwdriver and texas bugcatcher.

--
73 for now
Buck
N4PGW

2438. Re: Dayton

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 03:48:23 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <bSS9g.4965$UY6.2554@trnddc08>
Source record: 59430

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:126fm0di32b9he3@corp.supernews.com...
> If you're going to Dayton this year, please stop by and say hello. I'll be
> at my usual spot, booth 514 (listed in the index under "W7EL Software").
>
> Roy Lewallen, W7EL

And also at Las Pyramides?

Dale W4OP

2439. Re: Singer Stoddart 94592-1 rod antenna coupler info

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 03:48:27 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <fSS9g.15012$QP4.8033@fed1read12>
Source record: 59431

"Dave" <W1MCE@comcast.net> wrote in message
news:neqdnQoW7NPWhvrZ4p2dnA@comcast.com...
> Dave Rude wrote:
>
> > Greetings,
> > I have come by a Singer Stoddart 94592-1 rod antenna coupler. It is a
cube
> > about 4.5" is green and has a telescoping antenna on top affixed by a
screw
> > on BNC type connector. The output is BNC and there are two binding
posts
> > for B+ input I believe. I haven't been able to find a thing on the www
> > about this device, although, i did see one listed on ebay once for big
> > bucks. Does anyone have any info on this device they would share with
me?
> > The device is for H.F.
> > Dave - KA9SRU
> > dave.rude@sbcglobal.net
> > Thanks
> >
> >
>
> An EM specialist may shed more light on this subject.
>
> Twenty years ago, when I managed an EM lab among other responsibilities,
> Singer Stoddart was the #1 supplier of laboratory quality EM measuring
> devices. They designed and sold EM test instruments including receivers,
> antennas, couplers, that were traceable to NBS primary standards.
>
> I suspect you have a very expensive coupler for a receiving dipole for
> measuring radiated EM noise fields.
>
> [For about $40,000 you may find a Singer Stoddart receiver and antenna
> set to use with it <g>].
>
> Any professional EMers out there??
>
>

Yup. Singer made the NM-25 EMI receiver, too. I don't have any TM's around
any more, but there were about a dozen calibrated antennas that went with
those receivers. When you made a measurement, you referred to a calibration
chart for the "Antenna Factor" at that freq and you used it to convert the
received signal strength to actual field strength at that point. The NM-25

was the heaviest item I ever had to lug. Oof!

Those binding posts have me puzzled, though. I remember only coarse freq switching on our couplers -- nothing active inside that would take power input. Anything's possible.

2440. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 03:51:05 UTC
From: Buck <not@this.time>
Message-ID: <qauf62hjskssv504oeilt6n9q9emenssc1@4ax.com>
Source record: 59432

On Sun, 14 May 2006 16:34:44 -0400, Sonny Hood <wrhood@cox.net> wrote:

>I have an antenna that needs 100 ohm twin lead to match the impedance
>of the feed point. The 450 ohm lead has messed up the match and
>screwed up the resonance, does anone know of such an animal?
>K4WYS

Is this a single band or multiband antenna? If I recall correctly,
you can use a different impedance feedline if it is a multiple of a
half wave. At the half wave points, the impedance is the same as the
beginning of the feed.

Cecil or others here will correct the length error if I am incorrect.
But I learned about a year ago that the impedance can be corrected by
the multi-fraction length feedline of a different impedance.

Maybe this is the principal of Cecil's feedline matching system.

73 for now

--
73 for now
Buck
N4PGW

2441. Re: Liscensing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 03:53:11 UTC
From: Buck <not@this.time>
Message-ID: <mmuf62102ggukc194583u5pvq5g7263ngm@4ax.com>
Source record: 59433

On Sun, 14 May 2006 21:38:24 -0400, "Uncle Pete"
<radioconnectionNO@SPAMcox.net> wrote:

>
>"CW" <s@earthlink.net> wrote in message
>news:jUQ9g.4641$u4.4071@newsread1.news.pas.earthlink.net...
>> Not on the subject of antennas but people on this group would know. I let
>> my
>> license expire about three months ago. Was meaning to renew but never did.
>> Now that I have let it go this far, who do I see to renew this thing.
>> Hopefully won't have to test again. Not that would be a problem, just more
>> of a time thing. Haven't been on the air in years but would like the
>> option
>> of doing so. Thanks for any input.
>>
>You'll need to jump through a few hoops on the FCC website, you will need to
>register with the FCC before you can renew. While you can't operate, your
>well within the time limits before the license becomes nonrenewable. Some of
>the VEC groups will do the renewal for you for a small fee if the FCC
>website becomes too daunting. I think w5yi charges about 15 bucks...
>
>Pete
>
or call the FCC's 800 number that you can find on their website. Call
early eastern time before the others wake up and you get in more
quickly. The staff have always been pleasant to work with and helped
me out when I was confused.

it is cheaper and quicker than using w5yi

--
73 for now
Buck
N4PGW

2442. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 03:57:17 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <y_S9g.15013$QP4.9984@fed1read12>
Source record: 59434

"Sonny Hood" <wrhood@cox.net> wrote in message
news:5s4f621a8pote7880r9vhccbmagtlvatha@4ax.com...
> I have an antenna that needs 100 ohm twin lead to match the impedance
> of the feed point. The 450 ohm lead has messed up the match and
> screwed up the resonance, does anone know of such an animal?
> K4WYS

Does it have be twinlead? Certain LAN cable is made for 92 ohm Zo, which is
might close. Only downside I can imagine is the small size of the center
conductor: might limit XMIT power.

2443. continuing real-time solar wind data - public comment

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 05:54:23 UTC
From: yea right <spam@spam.spam>
Message-ID: <pan.2006.05.15.05.54.22.170937@spam.spam>
Source record: 59435
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.dx,rec.radio.amateur.space,rec.radio.shortwave

For those of you in the United States, (perhaps even people outside)
please consider writing or e-mailing a comment about how important the
real-time solar wind data is to our hobbies and emergency HF comms.

Please do not crosspost any replies

Solar Wind Comment Period Nears Its End

On April 3, 2006, the National Oceanic and Atmospheric Administration
(NOAA) issued a press release announcing a call for public comment on the
value of continuing real-time solar wind data, and products derived from
such data, provided by the Space Environment Center. Since that time,
NOAA has received many thoughtful, compelling comments regarding this
issue. It is obvious that people put their valuable time and effort into
expressing themselves, and their input is most appreciated.

There is still time to add your comments, but time is running short. As
stated in the April 3 press release, the comment period continues until
May 18. All input is important, so, if you haven't voiced your opinion
yet and would like to, please take the time to do so. Please send your
comments to:

solar.wind.comments@noaa.gov or contact:

NWS Contacts: Beth McNulty or Dorothy Haldeman

Mail:
National Weather Service
Office of Climate, Water and Weather Services Aviation Services Branch
1325 East-West Highway, SSMC2
Silver Spring, MD 20910

Phone: 301-713-1726 x116 or 301-713-1726 x130

Thank You
Space Environment Center

2444. Re: Dayton

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 06:21:17 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126g7f03kgfnvaf@corp.supernews.com>
Source record: 59436

Dale Parfitt wrote:
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:126fm0di32b9he3@corp.supernews.com...
>> If you're going to Dayton this year, please stop by and say hello. I'll be
>> at my usual spot, booth 514 (listed in the index under "W7EL Software").
>>
>> Roy Lewallen, W7EL
>
> And also at Las Pyramides?

Sorry, that name doesn't mean anything to me, so I won't be there,
whatever it is. Some casino in Vegas?

Roy Lewallen, W7EL

2445. Re: Dayton

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 12:26:14 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <Gr_9g.3952$mU6.3455@trnddc07>
Source record: 59437

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:126g7f03kgfnvaf@corp.supernews.com...
> Dale Parfitt wrote:
>> "Roy Lewallen" <w7el@eznec.com> wrote in message
>> news:126fm0di32b9he3@corp.supernews.com...
>>> If you're going to Dayton this year, please stop by and say hello. I'll
>>> be at my usual spot, booth 514 (listed in the index under "W7EL
>>> Software").
>>>
>>> Roy Lewallen, W7EL
>>
>> And also at Las Pyramides?
>
> Sorry, that name doesn't mean anything to me, so I won't be there,
> whatever it is. Some casino in Vegas?
>
> Roy Lewallen, W7EL

Hi Roy,

It's an excellent Mexican restaurant south east of Dayton- Miamisburg area?
Thought I had seen you (or a look alike) there a couple of times.

Dale

2446. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 12:26:39 UTC
From: Sonny Hood <wrhood@cox.net>
Message-ID: <5osg62ljn8d4pfgmgpfqurqsodl0v6uahq@4ax.com>
Source record: 59438

ANTENNA DESCRIPTION: I recently installed a horizontal loop antenna for 75 meters. The antenna wire is #12 multi-stranded tinned copper with 600 volt TEW insulation. The antenna is fed within one foot of the NW corner, via 25 ft. of 450 ohm twin lead to a 1:1 balun then via air dielectric RG/8 (21.1 ft.) then to a AT-1500CV. The formula 1005/f was used to figure the length and to cut the wire. However, due to the low height about ground (24-26 ft.); the ground capacitance changed the antenna resonance considerably. The target f (frequency) was 3.9 MHz with 257.7 ft. of wire. After installation in a rectangle configuration at 25+/- feet, the resonate frequency was 3.452 MHz. With a tuner matching the antenna to the "rf" generator (transceiver), the NVIS signal met the 100-200 mile range that was estimated. The antenna was tuned - cut (shortened) to increase the resonate frequency into the 75 meter phone band. After some estimating of desired length at the low elevation and cutting and pruning a resonate frequency of 3.790 MHz was obtained, that has a VSWR of 1.6 to 1. The resonance was found with an MFJ-269 without the tuner, 1.6:1 @ 3790 KHz. The tuner matches the load to 50 ohms for the PW-1. The area of the loop decreased and the perimeter length is 229.5 linear feet. Again with the use of a tuner throughout the phone band produced a NVIS signal range that was very good. K4WYS

On Sun, 14 May 2006 16:34:44 -0400, Sonny Hood <wrhood@cox.net> wrote:
>I have an antenna that needs 100 ohm twin lead to match the impedance
>of the feed point. The 450 ohm lead has messed up the match and
>screwed up the resonance, does anone know of such an animal?
>K4WYS

2447. F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 12:35:29 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <ndtg621hofr4ar9j6npvcfomlsp10pl986@4ax.com>
Source record: 59439

Any one know what power level an F connector can operate?
John Ferrell W8CCW

2448. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 12:49:18 UTC
From: shoppa@trailing-edge.com
Message-ID: <1147697358.600499.62870@i39g2000cwa.googlegroups.com>
Source record: 59440

John Ferrell wrote:
> Any one know what power level an F connector can operate?

In real use it's probably better than a phono plug, and for example
Heath radios use phono plugs (HW-101 etc.) up to the 100W power level
up to 30MHz.

If anything the F connector is going to be a better impedance match
into the VHF than a phono plug!

Actual limit (if you want to push to the hairy edge where the connector
is getting damn hot) will depend on frequency, SWR, cabling, etc., that
you don't tell us.

Tim.

2449. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 13:09:01 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1147698541.159267.170150@i39g2000cwa.googlegroups.com>
Source record: 59441

Well,
It looks like Dave successfully excited some natural frequencies in the
group for some weekend entertainment. Congratulations.
73,
Glenn AC7ZN

2450. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 13:41:58 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1147700518.011866.316240@u72g2000cwu.googlegroups.com>
Source record: 59442

Oh, and by the way, natural frequencies cannot exist without forward,
and reflected...
:->

2451. Re: Dayton

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 14:02:23 UTC
From: Alan WA4SCA <APBIDDLE@UNITED.NET>
Message-ID: <ba2h62hn9mbvo0hobofac50b9toju3t70d@4ax.com>
Source record: 59443

Hi Roy,

>>(listed in the index under "W7EL >>> Software").

The version on the Dayton Hamfest page shows booth 514 as EZNEC
Antenna Software. Whatever you are listed by, I have you circled for
a visit. Drop by the AMSAT gaggle if you have time.

Alan
WA4SCA

--
Alan
WA4SCA

2452. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 14:04:33 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <ST%9g.197$wQ7.8@fe10.lga>
Source record: 59444

"art" <aunwin@insightbb.com> wrote in message
news:1147636317.982915.197530@g10g2000cwb.googlegroups.com...
> Tom, this is well written and devoid of any antagonism towards anyone.
> If anybody wants to dispute any point then all relavent data is in
> place in your posting and thus
> forces all who disagree to stay on subject without the need for
> extraneous data when debating their differences. There will ofcourse,
> be some that will be more interested in a fight or profanity in the
> absence of comunicable knoweledge , but you are well positioned to just
> stand by your posting without retaliating in kind.
> Well done
> Art
>

Here is the exchange on the subject from TopBand reflector:
>K3BU< (...)
and W8JI responses:

> Tom is confusing Faraday shield with Electrostatic shield
> and whole reasoning that the grounded shield of small loop
> antenna is THE antenna is all wrong. Wire loops inside the
> electrostatic shield are perfectly OK to receive the RF
> and ARE the antenna.

It's a very well known property that nothing passes through
the walls of a shield more than several skin depths thick.
This is because skin effect keeps the current in the outside
layers and the core of the shield wall is dead. This is the
very thing that allows our coaxial lines to behave like
three conductors, a center conductor, a inner wall, and an
outer conductor. The physical behavior of a shield does not
change with application.

>Electrostatic shield in small loop antennas reduces the
>interference, electrical noise locally generated (prevalent
>electrical fields).

Not so Yuri.

First an electrostatic field by definition is a non-changing
field. Static is stationary or unchanging, and things that
aren't changing can't make RF noise.

(Here he is confused about electrostatic shield, "electrostatic field" and
electrical field and just like with loading coils case, confusing the issue
with behavior of ALL shields, Faraday, Electrostatic, coax, etc. applied to

a wrong case. - Yuri)

The field from an accidental transmitter (noise source) is just like the field from any intentional signal source like a transmitter. There is absolutely nothing that says the field has a high field impedance (electric field dominant). Even if it was a high impedance at the source, just 1/10th wave or so from the source the field would change to a low impedance.

We can't filter noise by virtue of field impedance or a shield. Even if we could, the noise source in the nearfield would randomly field dominant depending on distance and source charateristics.

The only thing the shield can do at radio frequencies is change the system balance.

73 Tom

2453. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 14:09:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <dY%9g.76844$H71.68934@newssvr13.news.prodigy.com>
Source record: 59445

Dave Oldridge wrote:
> ... there isn't much difference between a G5RV and a 102 foot
> dipole fed with 450 ohm line to a good balanced tuner.

Not much difference in performance. Lots of difference in the
impedances seen by the tuner. For instance, built-in autotuners
will usually match a G5RV somewhere on 80m, 40m, & 20m. There
are usually certain troublesome lengths of 450 ohm line used with
a 102 foot dipole that will prohibit a match by built-in autotuners.
--
73, Cecil http://www.qsl.net/w5dxp

2454. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 14:15:40 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <g20ag.72498$F_3.64502@newssvr29.news.prodigy.net>
Source record: 59447

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> What is a "sinusoidal magnitude function," Cecil?
>
>
> Y = sin(X)
>
> The magnitude 'Y' is equal to the sine of an angle,
> 'X', in degrees.
>
> Wouldn't you agree with me that it is ridiculously
> ignorant to assert that the magnitude 'Y' has nothing
> to do with the phase angle 'X', i.e. that there's no
> "phase information in the ... magnitude".

Actually, I don't think it's "ridiculously ignorant" at
all. If all you have is the value of current at one point,
you can't possibly tell anything about the phase. You need
to compare it to something - itself even - somewhere or sometime else in
order to have an idea of phase. Here's what I mean: suppose I have a
piece of wire of unknown length, excited by an unknown frequency, and
picking a random point on the wire I measure 1.73 amps. What is the
phase? You're trying to square the circle and hear the sound of one
hand clapping at one and the same time, Cecil. Of course, in your
case, you know the length of the wire, the frequency of the wave and
its wavelength, and you think you know the current distribution
on the wire (a half wavelength dipole) so you don't need anything
but a ruler to find what you're looking for. Of course, you have to
decide what you mean by the term "phase." Try not to get a permanent
headache thinking about it.
73,
Tom Donaly, KA6RUH

2455. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 14:15:45 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <m20ag.199$wQ7.114@fe10.lga>
Source record: 59446

<glenn.b.dixon@gmail.com> wrote in message
news:1147700518.011866.316240@u72g2000cwu.googlegroups.com...
> Oh, and by the way, natural frequencies cannot exist without forward,
> and reflected...
> :->
>

If there is reflector (impedance bump) in their way.
If W8JI waves are not reflected or opposed, then they would propagate
merrily into the ethernity and become the law of the RF jungle and other
pagan believers would worship them and praise the radio guru.
Waves have frequencies and sines/cosines, so this is related to antennas,
unless, of course there are those who "know better" :-)
Jus' stirring the pot...

Yuri da BUm

2456. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 14:26:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7c0ag.76847$H71.48247@newssvr13.news.prodigy.com>
Source record: 59448

Buck wrote:
> Is this a single band or multiband antenna? If I recall correctly,
> you can use a different impedance feedline if it is a multiple of a
> half wave. At the half wave points, the impedance is the same as the
> beginning of the feed.

i.e. at the antenna. You're right, neglecting losses, the antenna impedance is repeated every half wavelength. Neglecting losses, that 100 ohm antenna feedpoint impedance will be repeated at half-wavelength intervals for *any* feedline Z0, including 50 ohm coax.

> Cecil or others here will correct the length error if I am incorrect.
> But I learned about a year ago that the impedance can be corrected by
> the multi-fraction length feedline of a different impedance.
>
> Maybe this is the principal of Cecil's feedline matching system.

The principal of the feedline matching system that I use is that every SWR circle crosses the purely low resistive point at a current maximum point. For dipoles that are 1/2WL on the lowest frequency of operation, the current maximum point is the ideal point at which to feed the antenna system. Adjust the length of the feedline until the current maximum point is at the transmitter and you will usually not need a tuner at all.
--
73, Cecil http://www.qsl.net/w5dxp

2457. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 14:26:49 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Jc0ag.17015$Lm5.9335@newssvr12.news.prodigy.com>
Source record: 59449

Roy Lewallen wrote:

> Tom Donaly wrote:
>
>> Cecil Moore wrote:
>>
>>>
>>> For everyone else: Roy had ploinked me so he never sees my
>>> references. Therefore, he disagrees with Kraus over and over
>>> and over.
>
>
> I don't recall ever having disagreed with anything I've read in Kraus. I
> do, however, frequently disagree with the misinterpretations and
> misquotations of Kraus and many other references which Cecil has made.
>
> His frequent claims of "If you disagree with me, you disagree with
> [Kraus, Maxwell, Balanis, Hecht, Heaviside, Terman, God, whoever] are
> total baloney (to use a much kinder term than it deserves).
>
> Yes, I plonked Cecil a couple of years ago. Seeing only the occasional
> text quoted by others of his bizarre ramblings is more than enough.
> Those which I do see reinforce my belief that I'm certainly not missing
> anything of technical or educational merit.
>
> Roy Lewallen, W7EL

For someone like me, Cecil can be (but usually isn't) a very useful
crackpot. I can be pretty sure he's wrong, but the process of educating
myself into turning that hunch into a dead certainty that I can prove
to everyone (except him) can be enlightening.
73,
Tom Donaly, KA6RUH

2458. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 14:42:40 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Ar0ag.76851$H71.15882@newssvr13.news.prodigy.com>
Source record: 59450

Sonny Hood wrote:

> I have an antenna that needs 100 ohm twin lead to match the impedance
> of the feed point. The 450 ohm lead has messed up the match and
> screwed up the resonance, does anone know of such an animal?

Let's take a look at how the 450 ohm feedline "messed up the match". The SWR on the 450 ohm feedline will be 450/100 = 4.5:1. A feedline length equal to a multiple of 1/4WLs will transform the 100 ohms to ~2000 ohms or a 50 ohm SWR of 40:1 which is probably out of the matching range for built-in autotuners, for instance. You can change the impedance seen at the tuner back to 100 ohms by adding or subtracting 1/4WL of 450 ohm line which will make it a multiple of 1/2WL.

As someone else said, one of the most common ways to match a 100 ohm antenna is to use 1/4WL of 75 ohm coax and then 50 ohm coax the rest of the way. Instead of "messing up the match", it fixes up the match. The SWR on 75 ohm coax would be 100/75 = 1.33:1. The impedance at the end of the 1/4WL matching section would be 75/1.33 = ~56 ohms, a good match to 50 ohm coax.

If you are wanting to use the antenna for multi-band operation, change the length of the 450 ohm line until the match is not "messed up".
--
73, Cecil http://www.qsl.net/w5dxp

2459. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 15:00:49 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <l85h62pucaufi76aar1dcs8qdj840h6t5j@4ax.com>
Source record: 59451

I was being intentionally vague. I was hoping for some experiences or maybe even documentation. I have never seen it for anything other than small signal use.

The question arose while experimenting with an RV antenna on a fiberglass Winnebago. I ordered a 12 foot piece of RG59 with connectors expecting BNC's. What I received was F connectors. I am inclined to simply try them.

The initial reasoning was flawed anyway. I am planning a vertical 2 meter dipole, hence the 70 ohm cable. Since I am feeding it with a 50 ohm transceiver output there is going to be a little mismatch wherever I go. The transceiver does have a maximum output of 50 watts but the current magmount in a thin sliver of fender does not do well with that now. RF gets back into the laptop with the GPS software...

I bet that is more than any one wanted to know!
de W8CCW John

On 15 May 2006 05:49:18 -0700, shoppa@trailing-edge.com wrote:

>John Ferrell wrote:
>> Any one know what power level an F connector can operate?
>
>In real use it's probably better than a phono plug, and for example
>Heath radios use phono plugs (HW-101 etc.) up to the 100W power level
>up to 30MHz.
>
>If anything the F connector is going to be a better impedance match
>into the VHF than a phono plug!
>
>Actual limit (if you want to push to the hairy edge where the connector
>is getting damn hot) will depend on frequency, SWR, cabling, etc., that
>you don't tell us.
>
>Tim.
John Ferrell W8CCW

2460. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 15:02:03 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <LJ0ag.62732$Fs1.6945@bgtnsc05-news.ops.worldnet.att.net>
Source record: 59452

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I do not disagree with anything you have said.
>
>
> Please answer this question. Does the amplitude of the
> standing wave current contain any phase information?
>
> You have previously asserted that it does. Roy says
> it doesn't. Time to chose between technical fact
> and agreeing with your friend (who is technically
> incorrect).

Cecil,

You win!

You have now set the new world record in misquoting. You might want to give a call to the fine folks at Guinness.

73,
Gene
W4SZ

2461. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 15:07:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <MO0ag.76862$H71.73578@newssvr13.news.prodigy.com>
Source record: 59453

glenn.b.dixon@gmail.com wrote:
> It looks like Dave successfully excited some natural frequencies in the
> group for some weekend entertainment. Congratulations.

I don't see how there can be any argument. The standing wave
current envelope magnitude pattern pictured in Kraus is a cosine
function where the angle of the cosine function is the number of
degrees away from the feedpoint. If the feedpoint current is 1.0
amps at 0 degrees, the standing wave current magnitude in Kraus'
1/2WL thin-wire dipole has the following pattern.

degrees away
from feedpoint current magnitude
0 1.000 amps
30 0.866 amps
45 0.707 amps
60 0.500 amps
90 0.000 amps

How can anyone defend an argument asserting that standing wave
current magnitude contains no phase angle information? The arc-
cosine of the standing wave current magnitude above *IS* the
number of degrees of phase angle away from the feedpoint. Since
the antenna is an archetypical standing wave antenna, that phase
angle is also the absolute magnitude of the forward and reflected
current phase angles where those phase angles have opposite signs.
--
73, Cecil http://www.qsl.net/w5dxp

2462. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 15:31:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <V81ag.76865$H71.59961@newssvr13.news.prodigy.com>
Source record: 59454

Tom Donaly wrote:
> If all you have is the value of current at one point,
> you can't possibly tell anything about the phase.

But the value of current at one point is *NOT* all we have
so your supposition is irrelevant. After a century of theory
by some of the most brilliant human minds, we know virtually
everything there is to know about a 1/2WL thin-wire dipole.
We know there *IS* indeed phase information in the standing
wave current magnitude just Kraus graphed it in his book.

> You need
> to compare it to something - itself even - somewhere or sometime else in
> order to have an idea of phase.

The standard thing to compare it to is the feedpoint current,
e.g. provided by EZNEC, usually 1.0 amps at 0 degrees.

> Here's what I mean: suppose I have a
> piece of wire of unknown length, excited by an unknown frequency, and
> picking a random point on the wire I measure 1.73 amps. What is the
> phase? You're trying to square the circle and hear the sound of one
> hand clapping at one and the same time, Cecil.

First, you insult me with irrelevant ad hominem attacks ...

> Of course, in your
> case, you know the length of the wire, the frequency of the wave and
> its wavelength, and you think you know the current distribution
> on the wire (a half wavelength dipole) so you don't need anything
> but a ruler to find what you're looking for.

And second, you agree with Kraus and me ...

Here is a chart regarding Kraus' 1/2WL thin-wire dipole copied from
my other posting. Please tell us what is wrong with it and exactly
why the standing wave current magnitude doesn't tell us how many
degrees away the feedpoint is for the formula I = Io*cos(X).

X degrees away standing wave arc-cosine of the
from feedpoint current magnitude current magnitude
0 1.000 amps 0 deg
30 0.866 amps 30 deg
45 0.707 amps 45 deg
60 0.500 amps 60 deg
90 0.000 amps 90 deg

Do you really think it is a mere coincidence that column 1 and
column 3 are identical???
--
73, Cecil http://www.qsl.net/w5dxp

2463. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 15:48:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <np1ag.76869$H71.53461@newssvr13.news.prodigy.com>
Source record: 59455

Tom Donaly wrote:
> For someone like me, Cecil can be (but usually isn't) a very useful
> crackpot. I can be pretty sure he's wrong, but the process of educating
> myself into turning that hunch into a dead certainty that I can prove
> to everyone (except him) can be enlightening.

Now's your chance to enlighten us, Tom. Please explain again
how the standing wave current magnitude on a 1/2WL thin-wire
dipole doesn't depend upon how many degrees it is away from
the feed point, i.e. doesn't contain any phase information.

While you are at it, please explain exactly how Kraus is mistaken
about this antenna when he plots the standing wave current as
I = cos(X) where X is the number of degrees away from the
feedpoint and feedpoint current equals 1 amp at 0 degrees.
--
73, Cecil http://www.qsl.net/w5dxp

2464. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 15:56:43 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <xX2LZyM7SKaEFAsb@ifwtech.co.uk>
Source record: 59457

Allison wrote:
>On 15 May 2006 05:49:18 -0700, shoppa@trailing-edge.com wrote:
>
>>John Ferrell wrote:
>>> Any one know what power level an F connector can operate?
>>
>>In real use it's probably better than a phono plug, and for example
>>Heath radios use phono plugs (HW-101 etc.) up to the 100W power level
>>up to 30MHz.
>>
>>If anything the F connector is going to be a better impedance match
>>into the VHF than a phono plug!
>>
>>Actual limit (if you want to push to the hairy edge where the connector
>>is getting damn hot) will depend on frequency, SWR, cabling, etc., that
>>you don't tell us.
>>
>>Tim.
>
>I'd take a more direct shot. The connector can likely take whatever
>the RG59 or other 75 ohm cable limits it too. Likely the limiting
>factor is voltage breakdown. At 75ohms you get to higher voltages
>for the same power than you would using a 50ohm system.
>
If it's one of those F connectors that use the centre conductor of the
cable as the 'pin' of the plug, the limit might be the quality of that
connection.

Is the wire short or long? Clean or corroded? Bent or straight? Does it
have a clean-cut end, or was it mashed flat? Who knows...

>I'd bet in the 200W range is not unreasonable.

Probably so... and probably more, if desperate enough. But reliability
is a different matter.

F connectors were designed for the cable industry, to be used by the
millions at the lowest possible cost. It doesn't seem like a good idea
to use such connectors in amateur radio, unless there is some other
compelling reason.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

2465. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 15:58:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Wy1ag.76871$H71.16053@newssvr13.news.prodigy.com>
Source record: 59456

Gene Fuller wrote:

> Cecil Moore wrote:
>> Please answer this question. Does the amplitude of the
>> standing wave current contain any phase information?
>>
>> You have previously asserted that it does. Roy says
>> it doesn't. Time to chose between technical fact
>> and agreeing with your friend (who is technically
>> incorrect).
>
> Cecil, You win!
> You have now set the new world record in misquoting. You might want to
> give a call to the fine folks at Guinness.

It was a simple yes/no question, Gene. That you refuse to
answer speaks volumes so I will ask it once again, copying
from a previous posting that you ignored.

Just insert an 'X' for the one you agree with. If you don't
respond, I will add this to a long list of questions that
I have asked that the "experts" are afraid to answer.

_____ Standing wave current magnitude contains some phase
information.

_____ Standing wave current magnitude contains zero phase
information.
--
73, Cecil http://www.qsl.net/w5dxp

2466. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 16:16:58 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1147709818.209748.150830@y43g2000cwc.googlegroups.com>
Source record: 59458

Yuri,

It seems to me that when "W8JI" is associated with something, you assume immediately that it is wrong. If you were to read Ronold W. P. King's explanation about small loop antennas in "Transmission Lines, Antennas and Waveguides", would you be any more apt to believe it? How about Glenn S. Smith's discussion of them in Johnson and Jasik's "Antenna Engineering Handbook" (second edition)? Each of those begins with a reasonably detailed description of an "unshielded" loop and moves on to a "shielded" loop.

In addition, can you expain to us how the current on the wires on the inside of the shield is NOT balanced by an equal current in the opposite direction on the inside surface of the shield? Please tell us in detail just what currents are where on the shielded loop. If you are going to try to tell us that some explanation is in error, please provide us with enough detail that we can make up our own minds. So far, all I've seen here is some vague reference to confusion about shields.

The descriptions in each of the two references I gave above are far more detailed than what you have posted here, either of your own or of W8JI's, and I find them both enlightening--they are slightly different from each other--but both detailed enough that you can make up your own mind about what's really going on, and not have to read ranting generalities or statements with nothing to back them up.

Cheers,
Tom

2467. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 16:29:32 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <M%1ag.6534$fb2.4112@newssvr27.news.prodigy.net>
Source record: 59459

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> If all you have is the value of current at one point,
>> you can't possibly tell anything about the phase.
>
>
> But the value of current at one point is *NOT* all we have
> so your supposition is irrelevant. After a century of theory
> by some of the most brilliant human minds, we know virtually
> everything there is to know about a 1/2WL thin-wire dipole.
> We know there *IS* indeed phase information in the standing
> wave current magnitude just Kraus graphed it in his book.
>
>> You need
>> to compare it to something - itself even - somewhere or sometime else
>> in order to have an idea of phase.
>
>
> The standard thing to compare it to is the feedpoint current,
> e.g. provided by EZNEC, usually 1.0 amps at 0 degrees.
>
>> Here's what I mean: suppose I have a
>> piece of wire of unknown length, excited by an unknown frequency, and
>> picking a random point on the wire I measure 1.73 amps. What is the
>> phase? You're trying to square the circle and hear the sound of one
>> hand clapping at one and the same time, Cecil.
>
>
> First, you insult me with irrelevant ad hominem attacks ...
>
>> Of course, in your
>> case, you know the length of the wire, the frequency of the wave and
>> its wavelength, and you think you know the current distribution
>> on the wire (a half wavelength dipole) so you don't need anything
>> but a ruler to find what you're looking for.
>
>
> And second, you agree with Kraus and me ...
>
> Here is a chart regarding Kraus' 1/2WL thin-wire dipole copied from
> my other posting. Please tell us what is wrong with it and exactly
> why the standing wave current magnitude doesn't tell us how many
> degrees away the feedpoint is for the formula I = Io*cos(X).

>
> X degrees away standing wave arc-cosine of the
> from feedpoint current magnitude current magnitude
> 0 1.000 amps 0 deg
> 30 0.866 amps 30 deg
> 45 0.707 amps 45 deg
> 60 0.500 amps 60 deg
> 90 0.000 amps 90 deg
>
> Do you really think it is a mere coincidence that column 1 and
> column 3 are identical???

Cecil, you can always know something you already know. Knowing that your antenna is 1/2 wavelength long gives you all the information you need for your definition of phase. By the way, where did you get that table, from EZNEC?
73,
Tom Donaly, KA6RUH

2468. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 17:09:13 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <ZA2ag.6574$fb2.2610@newssvr27.news.prodigy.net>
Source record: 59460

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> For someone like me, Cecil can be (but usually isn't) a very useful
>> crackpot. I can be pretty sure he's wrong, but the process of educating
>> myself into turning that hunch into a dead certainty that I can prove
>> to everyone (except him) can be enlightening.
>
>
> Now's your chance to enlighten us, Tom. Please explain again
> how the standing wave current magnitude on a 1/2WL thin-wire
> dipole doesn't depend upon how many degrees it is away from
> the feed point, i.e. doesn't contain any phase information.
>
> While you are at it, please explain exactly how Kraus is mistaken
> about this antenna when he plots the standing wave current as
> I = cos(X) where X is the number of degrees away from the
> feedpoint and feedpoint current equals 1 amp at 0 degrees.

I didn't say that the value of the standing wave current on a
1/2 wavelength dipole doesn't vary with length. I did say that
just measuring the value at some point doesn't give you all the
information you need to calculate the phase. Of course, you already
know the phase, because you defined the antenna as 1/2
wavelength, so finding any kl is trivial. Secondly, even if you're
right about the current in your antenna being a sine function, in order
to use that information, you have to measure the current input at the
current maximum - which you've already defined to be the center of the
antenna - in order to compare it with the current at the point of
interest in order to get your result. In short, you still have to
know the current at two points in order to get an answer. The
information isn't contained in just one measurement. So let me turn it
around and ask you to tell me again why you think you can get some
"phase" information from measuring a single point on an antenna
without knowing anything else about it.

I haven't read Kraus, but I expect he was talking about an idealized,
infinitely thin antenna. Add thickness to the wire, and a feedpoint gap,
and you may come up with something slightly more complicated.
73,
Tom Donaly, KA6RUH

2469. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 17:12:58 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <uE2ag.6575$fb2.5110@newssvr27.news.prodigy.net>
Source record: 59461

Cecil Moore wrote:

> Gene Fuller wrote:
>
>> Cecil Moore wrote:
>>
>>> Please answer this question. Does the amplitude of the
>>> standing wave current contain any phase information?
>>>
>>> You have previously asserted that it does. Roy says
>>> it doesn't. Time to chose between technical fact
>>> and agreeing with your friend (who is technically
>>> incorrect).
>>
>>
>> Cecil, You win!
>> You have now set the new world record in misquoting. You might want to
>> give a call to the fine folks at Guinness.
>
>
> It was a simple yes/no question, Gene. That you refuse to
> answer speaks volumes so I will ask it once again, copying
> from a previous posting that you ignored.
>
> Just insert an 'X' for the one you agree with. If you don't
> respond, I will add this to a long list of questions that
> I have asked that the "experts" are afraid to answer.
>
> _____ Standing wave current magnitude contains some phase
> information.
>
> _____ Standing wave current magnitude contains zero phase
> information.

If a magnitude can, by itself, contain phase information, why
do we have to specify the angle in a phasor?
73,
Tom Donaly, KA6RUH

2470. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 17:26:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <nR2ag.86981$dW3.50345@newssvr21.news.prodigy.com>
Source record: 59462

Tom Donaly wrote:
> Cecil, you can always know something you already know. Knowing that your
> antenna is 1/2 wavelength long gives you all the information you need
> for your definition of phase.

Apparently that knowledge is not enough for W7EL who said
regarding the current distribution in a 1/2WL thin-wire
dipole:

> W7EL wrote:
>> Of course I reject the notion that there's "phase information
>> in the standing wave current magnitude".

This in the face of technical evidence that the standing
wave current magnitude is a cosine function of the number
of degrees the referenced point is away from the feedpoint.

Also contradicting > Gene Fuller who said:
>> The only "phase" remaining is the cos (kz) term, which is really
>> an amplitude description, not a phase.

> By the way, where did you get that table, from EZNEC?

From page 464 of "Antennas for all Applications", 3rd Edition,
by Kraus and Marhefka. Where Kraus presents the independent
variable in fractions of a wavelength, I simply converted it
to degrees. Most knowledgeable people comprehend that there
are 360 degrees per sinusoidal cycle, i.e. per one wavelength.
--
73, Cecil http://www.qsl.net/w5dxp

2471. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 17:29:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <abeh6294u1jnhg78ms6eb2h6q7mmv14c9u@4ax.com>
Source record: 59463

On Mon, 15 May 2006 17:12:58 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>> _____ Standing wave current magnitude contains some phase
>> information.
>>
>> _____ Standing wave current magnitude contains zero phase
>> information.
>
>If a magnitude can, by itself, contain phase information, why
>do we have to specify the angle in a phasor?

Hi Tom,

Cecil probably doesn't understand that both options give both current
magnitude AND phase as choices. Rather makes the "question"
pointless, but nothing new in the correspondence from our Xerox
philosopher.

For the record:

____X____ Standing wave current magnitude contains NO phase
information.

73's
Richard Clark, KB7QHC

2472. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 17:49:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Ia3ag.86990$dW3.66676@newssvr21.news.prodigy.com>
Source record: 59464

Tom Donaly wrote:
> I didn't say that the value of the standing wave current on a
> 1/2 wavelength dipole doesn't vary with length. I did say that
> just measuring the value at some point doesn't give you all the
> information you need to calculate the phase.

The subject is a 1/2WL thin-wire dipole with a feedpoint current
of 1 amp at 0 degrees as illustrated by Kraus on page 464 of
"Antennas for All Applications", 3rd Edition. That's about the sixth
time I have stated those boundary conditions.

> The information isn't contained in just one measurement.

For a 1/2WL thin-wire dipole with a feedpoint current of 1 amp
at 0 degrees, as illustrated by Kraus, all the phase information
one needs to know is indeed "contained in just one measurement".

> I haven't read Kraus, but I expect he was talking about an idealized,
> infinitely thin antenna.

I have been very careful about specifying Kraus' 1/2WL thin-wire
dipole as the subject of this discussion. It is easiest to
understand because it has the least number of variables.

What is the agenda in trying to divert the subject away from
something easy to understand to something that is difficult
to understand?
--
73, Cecil http://www.qsl.net/w5dxp

2473. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 18:07:15 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <nr3ag.86998$dW3.25157@newssvr21.news.prodigy.com>
Source record: 59465

Tom Donaly wrote:
> If a magnitude can, by itself, contain phase information, why
> do we have to specify the angle in a phasor?

The subject is the standing wave current phasor on a
1/2WL thin-wire dipole, not phasors in general.

The point is that we do *NOT* have to specify the angle
for the standing wave current phasor on a 1/2WL thin-wire
dipole. The standing wave current phase angle at any point
up and down the antenna is already known to be EXACTLY the
same as the angle of the source current at any particular
time. That's why W7EL's phase measurements were meaningless
and his conclusions false. Note he has refused to discuss
the subject with me here or over private email.

If the source current is 1 amp at 0 degrees, the standing
wave current magnitude equals cos(X) and the standing wave
current phase equals zero degrees. That you guys disagree
indicates ignorance of the assertions of Kraus, Balanis,
and others.

This is what the argument is all about. The phase angle
for the standing wave current is known to be zero degrees
and unchanging with respect to the source current phasor.
The standing wave magnitude is known to be the cosine of
the number of degrees away from the feedpoint. That same
number of degrees is the absolute value of the phase angle
of the forward current and reflected current phasors.

The magnitude of the standing wave current on a 1/2WL
thin-wire dipole, fed with 1 amp at 0 degrees as
illustrated by Kraus, indeed does contain all the phase
information that anyone could ever need or want.
--
73, Cecil http://www.qsl.net/w5dxp

2474. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 18:18:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7C3ag.87003$dW3.37378@newssvr21.news.prodigy.com>
Source record: 59466

Richard Clark wrote:
> For the record:
>
> ____X____ Standing wave current magnitude contains NO phase
> information.

Remember the context is the 1/2WL thin-wire dipole fed
by 1 amp at 0 degrees on page 464 in Kraus' "Antennas
For All Applications", 3rd Edition where the standing wave
current magnitude EQUALS cos(X) where X is the number of
degrees away from the feedpoint. The arc-cosine of the standing
wave current magnitude *IS* the phase.

One other point. At least one expert has said that nothing
is lost in the superposition process. We know that the
forward traveling wave has phase and the reverse traveling
wave has phase. If the superposed standing wave current
magnitude contains no phase information, then something was
lost in the superposition process because the standing wave
current phase certainly contains no phase information as
illustrated at:

http://www.qsl.net/w5dxp/travstnd.GIF
--
73, Cecil http://www.qsl.net/w5dxp

2475. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 18:30:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <g2ih621q66kgib2qrg588ikel1oek392u1@4ax.com>
Source record: 59467

On Mon, 15 May 2006 18:18:43 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>> For the record:
>>
>> ____X____ Standing wave current magnitude contains NO phase
>> information.
>
>Remember the context is the 1/2WL thin-wire dipole fed

Context schmomtext, Nothing said is nothing said.

This is the problem that comes of a Xerox education.

2476. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 18:43:14 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <6Z3ag.71207$_S7.13076@newssvr14.news.prodigy.com>
Source record: 59468

Richard Clark wrote:
> On Mon, 15 May 2006 18:18:43 GMT, Cecil Moore <mycall@hotmail.com>
> wrote:
>
>
>>Richard Clark wrote:
>>
>>>For the record:
>>>
>>>____X____ Standing wave current magnitude contains NO phase
>>>information.
>>
>>Remember the context is the 1/2WL thin-wire dipole fed
>
>
> Context schmomtext, Nothing said is nothing said.
>
> This is the problem that comes of a Xerox education.

Hi Richard,
all Cecil's information is in the schmomtext.
73,
Tom Donaly, KA6RUH

2477. Re: Dayton

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 19:18:04 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126hkvfeeu4q3f1@corp.supernews.com>
Source record: 59469

Thanks, Alan. So the listing finally got changed -- people had complained, justifiably, that they didn't find me in the index. A couple of previous attempts to get it changed had failed, and I didn't realize it had succeeded this time.

Roy Lewallen, W7EL

Alan WA4SCA wrote:
> Hi Roy,
>
>>> (listed in the index under "W7EL >>> Software").
>
> The version on the Dayton Hamfest page shows booth 514 as EZNEC
> Antenna Software. Whatever you are listed by, I have you circled for
> a visit. Drop by the AMSAT gaggle if you have time.
>
> Alan
> WA4SCA
>
> --
> Alan
> WA4SCA

2478. Re: Dayton

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 19:22:15 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126hl7ai2bsd3af@corp.supernews.com>
Source record: 59470

Dale Parfitt wrote:
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:126g7f03kgfnvaf@corp.supernews.com...
>> Dale Parfitt wrote:
>>> "Roy Lewallen" <w7el@eznec.com> wrote in message
>>> news:126fm0di32b9he3@corp.supernews.com...
>>>> If you're going to Dayton this year, please stop by and say hello. I'll
>>>> be at my usual spot, booth 514 (listed in the index under "W7EL
>>>> Software").
>>>>
>>>> Roy Lewallen, W7EL
>>> And also at Las Pyramides?
>> Sorry, that name doesn't mean anything to me, so I won't be there,
>> whatever it is. Some casino in Vegas?
>>
>> Roy Lewallen, W7EL
>
> Hi Roy,
>
> It's an excellent Mexican restaurant south east of Dayton- Miamisburg area?
> Thought I had seen you (or a look alike) there a couple of times.

Duh. Mea Culpa - I do indeed know the place and have been known to
appear there. I had forgotten its name -- but not how to get there.

If there are any look-alikes walking around out there, they have my
sincerest sympathy. To quote Abraham Lincoln, on being accused by a
political opponent of being two-faced, "If I had another face, why would
I be wearing this one?"

Roy Lewallen, W7EL

2479. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 19:27:33 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <FC4ag.63403$Fs1.7790@bgtnsc05-news.ops.worldnet.att.net>
Source record: 59471

Based on my reading, it appears that Kraus did not say anything closely resembling Cecil's comments. Cecil is "interpreting" a very simple picture in Kraus. All of the math appears to arise from Cecil's imagination.

Cecil is so good at quoting that he should have no problem with providing the exact unedited words from Kraus that support the arc-cosine analysis.

73,
Gene
W4SZ

2480. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 19:40:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126hma1ei616b71@corp.supernews.com>
Source record: 59472

Tom Donaly wrote:
>
> If a magnitude can, by itself, contain phase information, why
> do we have to specify the angle in a phasor?

It looks like Cecil is trying to use "phase" as a function of position, of the envelope of a standing wave rather than the time phase of the total voltage or current which brings about the standing wave. This makes it possible to keep the simple topic suitably muddled and enhances the opportunity to misquote.

As I pointed out some time ago, the envelope of a standing wave isn't in general sinusoidally shaped. At the one extreme of a matched load, the total current or voltage vs position function is a straight line, and there is no standing wave. At the other extreme where there's a complete reflection, the function is sinusoidally shaped. The current on an antenna falls into neither category, although the distribution on a thin antenna is nearly sinusoidal. In between the two extremes, the shape of the total current or voltage vs position function (that is, the envelope of the standing wave) is neither straight nor sinusoidal, but can be described with hyperbolic trig functions.

You can of course divide the period of any periodic function into 360 degrees or two pi radians and call the point along it a "phase" relative to some arbitrary reference. In the case of a standing wave's envelope, doing so doesn't generally accomplish anything useful. But it seems to be providing fodder for imagining great and wonderful insights about physics. And it certainly is useful in keeping a meaningless argument going by interpreting "phase" to mean either time phase or the positional "phase" of a standing wave envelope as necessary to keep the discussion from proceeding on a linear and logical track.

Roy Lewallen, W7EL

2481. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 20:01:00 UTC
From: Dave <noone@nowhere.com>
Message-ID: <6eOdnSdDzKORQ_XZnZ2dnUVZ_uidnZ2d@crocker.com>
Source record: 59473

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Ia3ag.86990$dW3.66676@newssvr21.news.prodigy.com...
> Tom Donaly wrote:
>> I didn't say that the value of the standing wave current on a
>> 1/2 wavelength dipole doesn't vary with length. I did say that
>> just measuring the value at some point doesn't give you all the
>> information you need to calculate the phase.
>
> The subject is a 1/2WL thin-wire dipole with a feedpoint current
> of 1 amp at 0 degrees as illustrated by Kraus on page 464 of
> "Antennas for All Applications", 3rd Edition. That's about the sixth
> time I have stated those boundary conditions.
>
>> The information isn't contained in just one measurement.
>
> For a 1/2WL thin-wire dipole with a feedpoint current of 1 amp
> at 0 degrees, as illustrated by Kraus, all the phase information
> one needs to know is indeed "contained in just one measurement".
>
>> I haven't read Kraus, but I expect he was talking about an idealized,
>> infinitely thin antenna.
>
> I have been very careful about specifying Kraus' 1/2WL thin-wire
> dipole as the subject of this discussion. It is easiest to
> understand because it has the least number of variables.
>
> What is the agenda in trying to divert the subject away from
> something easy to understand to something that is difficult
> to understand?
> --
> 73, Cecil http://www.qsl.net/w5dxp

The AGENDA is to get you guys fighting! boy, sure didn't take much, even in a thread that was obviously a troll with no technical question to start it of! you guys are just fighting over your own statements since there was no initial technical question or statement that started this thread... i love it, kept me amused through a whole rainy weekend and now on a rainy monday... supposed to rain more this week, think you guys can keep going a bit longer??

2482. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 20:05:53 UTC
From: Dave <noone@nowhere.com>
Message-ID: <ZP-dncOjxqisQvXZnZ2dnUVZ_sydnZ2d@crocker.com>
Source record: 59474

you are great cecil, you cut out the original post to make it look like i had nothing to do with the original statement... if you will remember he was asking if he would get 25 ohms if he connected the braids together without the center conductors... i simply say that if you connect both the braid and center conductors you get a 25 ohm line... the implication being that if you don't connect the center conductors you don't get a 25 ohm line.

thanks for keeping the fight thread going so well, now that you are riled up i guess you can branch out into some other threads and bog them down for the rest of the week.

"Cecil Moore" <mycall@hotmail.com> wrote in message news:XmP9g.86786$dW3.78095@newssvr21.news.prodigy.com...
> Dave wrote:
>> better get out the snorkle... if you tie the braid and the center
>> conductor together you get a 25 ohm line, i use that all the time for my
>> stack matching boxes.
>
> Nobody said anything about tying the braid and center conductor
> together. If the side by side run of 50 ohm coax is used as a
> parallel feedline, the braids are tied together and the Z0
> is 100 ohms when the center conductors are connected across
> the load.
> --
> 73, Cecil http://www.qsl.net/w5dxp

2483. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 20:08:50 UTC
From: Dave <noone@nowhere.com>
Message-ID: <kvOdnRnz1qt-QvXZnZ2dnUVZ_vadnZ2d@crocker.com>
Source record: 59475

great! glad the good old measure and trim method worked adequately... now
if you are really smart you will stop reading more replies to this thread
and get on the air and make use of that nice new antenna!

"Sonny Hood" <wrhood@cox.net> wrote in message
news:5osg62ljn8d4pfgmgpfqurqsodl0v6uahq@4ax.com...
> ANTENNA DESCRIPTION: I recently installed a horizontal loop antenna
> for 75 meters. The antenna wire is #12 multi-stranded tinned copper
> with 600 volt TEW insulation. The antenna is fed within one foot of
> the NW corner, via 25 ft. of 450 ohm twin lead to a 1:1 balun then via
> air dielectric RG/8 (21.1 ft.) then to a AT-1500CV. The formula 1005/f
> was used to figure the length and to cut the wire. However, due to
> the low height about ground (24-26 ft.); the ground capacitance
> changed the antenna resonance considerably. The target f (frequency)
> was 3.9 MHz with 257.7 ft. of wire. After installation in a rectangle
> configuration at 25+/- feet, the resonate frequency was 3.452 MHz.
> With a tuner matching the antenna to the "rf" generator (transceiver),
> the NVIS signal met the 100-200 mile range that was estimated.
> The antenna was tuned - cut (shortened) to increase the
> resonate frequency into the 75 meter phone band. After some
> estimating of desired length at the low elevation and cutting and
> pruning a resonate frequency of 3.790 MHz was obtained, that has a
> VSWR of 1.6 to 1. The resonance was found with an MFJ-269 without the
> tuner, 1.6:1 @ 3790 KHz. The tuner matches the load to 50 ohms for the
> PW-1. The area of the loop decreased and the perimeter length is 229.5
> linear feet. Again with the use of a tuner throughout the phone band
> produced a NVIS signal range that was very good. K4WYS
>
> On Sun, 14 May 2006 16:34:44 -0400, Sonny Hood <wrhood@cox.net> wrote:
>>I have an antenna that needs 100 ohm twin lead to match the impedance
>>of the feed point. The 450 ohm lead has messed up the match and
>>screwed up the resonance, does anone know of such an animal?
>>K4WYS
>

2484. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 20:38:20 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <34mdnb_ottkue_XZnZ2dnUVZ_v6dnZ2d@comcast.com>
Source record: 59476

"g. beat >" <@<spam protected> wrote in message
news:N8-dnbwe4b6QffrZnZ2dnUVZ_vednZ2d@comcast.com...
> "Sonny Hood" <wrhood@cox.net> wrote in message
> news:5s4f621a8pote7880r9vhccbmagtlvatha@4ax.com...
>>I have an antenna that needs 100 ohm twin lead to match the impedance
>> of the feed point. The 450 ohm lead has messed up the match and
>> screwed up the resonance, does anone know of such an animal?
>>
>> K4WYS
>
> As I remember, common lamp "zip" cord (AWG 18 or 16) functions at about
> that Z (I'll have to check)
>
> gb
>I once measured some cheap zip cord at 7 MHz. got something like 85 Ohms.

Tam/WB2TT

2485. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 20:48:47 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <alydnd5ilu27dPXZRVn-gg@comcast.com>
Source record: 59477

"Sonny Hood" <wrhood@cox.net> wrote in message
news:5osg62ljn8d4pfgmgpfqurqsodl0v6uahq@4ax.com...
> ANTENNA DESCRIPTION: I recently installed a horizontal loop antenna
> for 75 meters. The antenna wire is #12 multi-stranded tinned copper
> with ....

Sort of like what I have. Full size 75m loop fed at one corner. I connected a 1:1 current balun directly at the antenna , feeding a 1/4 wave section of RG11 Foam coax. All 50 Ohms downstream from there. SWR at resonance is about 1.2:1. No tuners.

Tam/WB2TT

2486. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 21:17:18 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <yd6ag.71235$_S7.35327@newssvr14.news.prodigy.com>
Source record: 59479

Dave wrote:
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:Ia3ag.86990$dW3.66676@newssvr21.news.prodigy.com...
>
>>Tom Donaly wrote:
>>
>>>I didn't say that the value of the standing wave current on a
>>>1/2 wavelength dipole doesn't vary with length. I did say that
>>>just measuring the value at some point doesn't give you all the
>>>information you need to calculate the phase.
>>
>>The subject is a 1/2WL thin-wire dipole with a feedpoint current
>>of 1 amp at 0 degrees as illustrated by Kraus on page 464 of
>>"Antennas for All Applications", 3rd Edition. That's about the sixth
>>time I have stated those boundary conditions.
>>
>>
>>>The information isn't contained in just one measurement.
>>
>>For a 1/2WL thin-wire dipole with a feedpoint current of 1 amp
>>at 0 degrees, as illustrated by Kraus, all the phase information
>>one needs to know is indeed "contained in just one measurement".
>>
>>
>>>I haven't read Kraus, but I expect he was talking about an idealized,
>>>infinitely thin antenna.
>>
>>I have been very careful about specifying Kraus' 1/2WL thin-wire
>>dipole as the subject of this discussion. It is easiest to
>>understand because it has the least number of variables.
>>
>>What is the agenda in trying to divert the subject away from
>>something easy to understand to something that is difficult
>>to understand?
>>--
>>73, Cecil http://www.qsl.net/w5dxp
>
>
> The AGENDA is to get you guys fighting! boy, sure didn't take much, even in
> a thread that was obviously a troll with no technical question to start it
> of! you guys are just fighting over your own statements since there was no
> initial technical question or statement that started this thread... i love
> it, kept me amused through a whole rainy weekend and now on a rainy
> monday... supposed to rain more this week, think you guys can keep going a

> bit longer??
>
>

You're welcome, Dave. Glad to oblige.
73,
Tom Donaly, KA6RUH

2487. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 21:19:29 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <l1rh62pbarfb4trrkj5alvi6s71ppm4ccv@4ax.com>
Source record: 59478

On Mon, 15 May 2006 08:26:39 -0400, Sonny Hood <wrhood@cox.net> wrote:

>ANTENNA DESCRIPTION: I recently installed a horizontal loop antenna
>for 75 meters. The antenna wire is #12 multi-stranded tinned copper
>with 600 volt TEW insulation. The antenna is fed within one foot of
>the NW corner, via 25 ft. of 450 ohm twin lead to a 1:1 balun then via
>air dielectric RG/8 (21.1 ft.) then to a AT-1500CV. The formula 1005/f
>was used to figure the length and to cut the wire. However, due to
>the low height about ground (24-26 ft.); the ground capacitance
>changed the antenna resonance considerably. The target f (frequency)
>was 3.9 MHz with 257.7 ft. of wire. After installation in a rectangle
>configuration at 25+/- feet, the resonate frequency was 3.452 MHz.

You would expect the feedpoint impedance of a full wave loop (cut
using your formula) to be around 90 ohms at resonance.

You have then connected 25' of 450 ohm line. Lets assume this is
Wireman 551 line, the input impedance to this line section at
(assuming 3.7MHz) should be around 141+j282 (and line loss would be
~0.1dB).

You then have an unspecified length of "air dielectric RG/8" (new to
me) which will transform the impedance further.

You seem to intend to then use an ATU to transform this impedance to a
satisfactory load for the transmitter.

Where did you make the measurements with the MFJ269? If it was not at
the antenna feedpoint, did you really expect resonance at the
measurement point to coincide with loop resonance, and is resonance at
either point important to efficient operation of the entire system?

Owen

>With a tuner matching the antenna to the "rf" generator (transceiver),
>the NVIS signal met the 100-200 mile range that was estimated.
> The antenna was tuned - cut (shortened) to increase the
>resonate frequency into the 75 meter phone band. After some
>estimating of desired length at the low elevation and cutting and
>pruning a resonate frequency of 3.790 MHz was obtained, that has a
>VSWR of 1.6 to 1. The resonance was found with an MFJ-269 without the
>tuner, 1.6:1 @ 3790 KHz. The tuner matches the load to 50 ohms for the
>PW-1. The area of the loop decreased and the perimeter length is 229.5
>linear feet. Again with the use of a tuner throughout the phone band
>produced a NVIS signal range that was very good. K4WYS
>
>On Sun, 14 May 2006 16:34:44 -0400, Sonny Hood <wrhood@cox.net> wrote:

>>I have an antenna that needs 100 ohm twin lead to match the impedance
>>of the feed point. The 450 ohm lead has messed up the match and
>>screwed up the resonance, does anone know of such an animal?
>>K4WYS
--

2488. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 21:26:10 UTC
From: Bob <warthog9@pacbell.net>
Message-ID: <Sl6ag.72564$F_3.43015@newssvr29.news.prodigy.net>
Source record: 59480

The new breed of compression type F connectors (T&B Snap-N-Seal) have
surprisingly good return loss up to 3 GHz and Canare advertises 26dB
return loss at 2GHz for their industry standard crimp type, see
http://www.canare.com/index.cfm?objectid=6994120C-3048-7098-AF9D73F542BECA48.
The female F receptacle usually has two fingers that grab the center
conductor and I think this would be the limiting factor in power
handling capacity.
Bob

Ian White GM3SEK wrote:
> Allison wrote:
>> On 15 May 2006 05:49:18 -0700, shoppa@trailing-edge.com wrote:
>>
>>> John Ferrell wrote:
>>>> Any one know what power level an F connector can operate?
>>>
>>> In real use it's probably better than a phono plug, and for example
>>> Heath radios use phono plugs (HW-101 etc.) up to the 100W power level
>>> up to 30MHz.
>>>
>>> If anything the F connector is going to be a better impedance match
>>> into the VHF than a phono plug!
>>>
>>> Actual limit (if you want to push to the hairy edge where the connector
>>> is getting damn hot) will depend on frequency, SWR, cabling, etc., that
>>> you don't tell us.
>>>
>>> Tim.
>>
>> I'd take a more direct shot. The connector can likely take whatever
>> the RG59 or other 75 ohm cable limits it too. Likely the limiting
>> factor is voltage breakdown. At 75ohms you get to higher voltages
>> for the same power than you would using a 50ohm system.
>>
> If it's one of those F connectors that use the centre conductor of the
> cable as the 'pin' of the plug, the limit might be the quality of that
> connection.
>
> Is the wire short or long? Clean or corroded? Bent or straight? Does it
> have a clean-cut end, or was it mashed flat? Who knows...
>
>> I'd bet in the 200W range is not unreasonable.
>
> Probably so... and probably more, if desperate enough. But reliability

> is a different matter.
>
> F connectors were designed for the cable industry, to be used by the
> millions at the lowest possible cost. It doesn't seem like a good idea
> to use such connectors in amateur radio, unless there is some other
> compelling reason.
>
>
>

2489. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 22:30:25 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97C49DBE43CB6doldridgsprintca@64.59.135.159>
Source record: 59481

Cecil Moore <mycall@hotmail.com> wrote in news:dY%9g.76844$H71.68934
@newssvr13.news.prodigy.com:

> Dave Oldridge wrote:
>> ... there isn't much difference between a G5RV and a 102 foot
>> dipole fed with 450 ohm line to a good balanced tuner.
>
> Not much difference in performance. Lots of difference in the
> impedances seen by the tuner. For instance, built-in autotuners
> will usually match a G5RV somewhere on 80m, 40m, & 20m. There
> are usually certain troublesome lengths of 450 ohm line used with
> a 102 foot dipole that will prohibit a match by built-in autotuners.

True, I'm somewhat spoiled since I've always used fairly wide-range tuners.
Even my Intellituner will match a 64-1 load.

--
Dave Oldridge+
ICQ 1800667

2490. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 22:35:14 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147732514.784135.252770@j73g2000cwa.googlegroups.com>
Source record: 59482
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.cb

get help aslaways a good reply for wisemen

2491. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 22:42:34 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147732954.627784.210480@g10g2000cwb.googlegroups.com>
Source record: 59483
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

get help the one size fits all response to wismen

2492. Subscribe FREE to the K9YA Telegraph

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 23:28:30 UTC
From: K9YA Telegraph <no_reply@yahoo.com>
Message-ID: <y88ag.87090$dW3.33365@newssvr21.news.prodigy.com>
Source record: 59484

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http://www.k9ya.org

2493. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-15 23:58:03 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <126i5cbj5bv0e6e@corp.supernews.com>
Source record: 59485

Now, however did I know this thread would go on 'n on, 'n on 'n on......

Cecil Moore wrote:
> Sonny Hood wrote:
>
>> I have an antenna that needs 100 ohm twin lead to match the impedance
>> of the feed point. The 450 ohm lead has messed up the match and
>> screwed up the resonance, does anone know of such an animal?
>
>
> Let's take a look at how the 450 ohm feedline "messed up the
> match". The SWR on the 450 ohm feedline will be 450/100 = 4.5:1.
> A feedline length equal to a multiple of 1/4WLs will transform
> the 100 ohms to ~2000 ohms or a 50 ohm SWR of 40:1 which is
> probably out of the matching range for built-in autotuners, for
> instance. You can change the impedance seen at the tuner back
> to 100 ohms by adding or subtracting 1/4WL of 450 ohm line which
> will make it a multiple of 1/2WL.
>
> As someone else said, one of the most common ways to match a
> 100 ohm antenna is to use 1/4WL of 75 ohm coax and then 50
> ohm coax the rest of the way. Instead of "messing up the match",
> it fixes up the match. The SWR on 75 ohm coax would be 100/75 =
> 1.33:1. The impedance at the end of the 1/4WL matching section
> would be 75/1.33 = ~56 ohms, a good match to 50 ohm coax.
>
> If you are wanting to use the antenna for multi-band operation,
> change the length of the 450 ohm line until the match is not
> "messed up".

2494. Retard Markie, no brains at all!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 00:17:11 UTC
From: marky_morgan_internet_retard@yahoo.com
Message-ID: <1147738631.264761.77230@i40g2000cwc.googlegroups.com>
Source record: 59486
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

an_old_friend wrote:
> get help the one size fits all response

It's the only response that your alcohol and drug addled tiny working
brain cell can manage, stupid.

2495. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 01:21:56 UTC
From: w8ji@akorn.net
Message-ID: <1147742516.024728.149890@v46g2000cwv.googlegroups.com>
Source record: 59487

John Ferrell wrote:
> I was being intentionally vague. I was hoping for some experiences or
> maybe even documentation. I have never seen it for anything other than
> small signal use.

If you are looking for direct experience....

My M2 six meter Yagi's use F connectors and I regularly run 1000-1200 watts CW on six meters into one antenna.

The F connectors are in a coaxial feed for a T match, and the way they are configured each connector has half the line current but there is full line voltage on each connector. That's on six meters, and I mostly work CW (sometimes for a few hours straight).

I've used CATV hardline to F connectors for dipoles on HF many times. I used RG-6 style cable to feed dipoles for low bands, and the F connectors never failed even with high power.

I was a little scared of the RG-6 and F connectors on my M2 antenna feed system, but it has not been a problem. I never worried about 1500 watts at 160-40 meters and failure never was an issue. I high pot test F connector cable assemblies to about 2000 volts peak, so I expect current or moisture would be the limit.

73 Tom

2496. Flag / Pennant antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 01:32:11 UTC
From: amdx <amdx@knology.net>
Message-ID: <983c6$44692b99$45011502$9202@KNOLOGY.NET>
Source record: 59488

Hi All,
I have a rotating Flag antenna. I'm rebuilding it so the horizontal
beam will rotate vertically. This will allow me to install new parts while
I'm standing on the ground. I hope this will make experimenting easier.
I have a pin that locks the beam 90 degrees to the mast. By drilling
another
hole I can make that any angle. Please see post "Flag Antenna Rotation"
in ABSE.
The question;
Is there any change in the pattern caused by tilting the Flag antenna?

Can someone familiar with Eznec run a case with the antenna
tilted 20 degrees from horizantal?

Thanks for any info,
Mike

2497. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 01:38:11 UTC
From: an Old friend <kb9rqz@amsat.org>
Message-ID: <1147743491.259553.69900@j55g2000cwa.googlegroups.com>
Source record: 59489
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

marky_morgan_internet_retard@yahoo.com wrote:
> an_old_friend wrote:
> > get help the one size fits all response
>
> It's the only response that your alcohol and drug addled tiny working
> brain cell can manage, stupid.

more delsuions poor boy

get help

2498. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 01:48:09 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <o7bi625r4b70cseb4pi8jh50lc8mbu4d5l@4ax.com>
Source record: 59490

On 15 May 2006 18:21:56 -0700, w8ji@akorn.net wrote:

>watts at 160-40 meters and failure never was an issue. I high pot test
>F connector cable assemblies to about 2000 volts peak, so I expect
>current or moisture would be the limit.

Tom, whilst they are likely to withstand thousands of volts, small coaxial cables are unlikely to withstand the heat from the corresponding current if applied for sufficient time.

The focus in this discussion seems to be solely on the voltage withstand capability, whereas loss / ability to dissipate heat / temperature rise as installed are relevant and may be more constraining.

Owen
--

2499. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 03:58:28 UTC
From: Buck <not@this.time>
Message-ID: <2vii625tcsu874g5vg5en7mkvd3258e6le@4ax.com>
Source record: 59491

On Mon, 15 May 2006 14:26:11 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Buck wrote:
>> Is this a single band or multiband antenna? If I recall correctly,
>> you can use a different impedance feedline if it is a multiple of a
>> half wave. At the half wave points, the impedance is the same as the
>> beginning of the feed.
>
>i.e. at the antenna. You're right, neglecting losses, the antenna
>impedance is repeated every half wavelength. Neglecting losses,
>that 100 ohm antenna feedpoint impedance will be repeated at half-
>wavelength intervals for *any* feedline Z0, including 50 ohm coax.

So far, so good. If the antenna is fed with 50 ohm coax, there will
be great losses, however, if I am correct, there will be negligible
losses with 450, or even less with 600 ohm twin-lead. A 2:1 balun at
the end of this 600 ohm wire should net a low-loss, but good match for
his antenna?

>
>> Cecil or others here will correct the length error if I am incorrect.
>> But I learned about a year ago that the impedance can be corrected by
>> the multi-fraction length feedline of a different impedance.
>>
>> Maybe this is the principal of Cecil's feedline matching system.
>
>The principal of the feedline matching system that I use is that
>every SWR circle crosses the purely low resistive point at a
>current maximum point. For dipoles that are 1/2WL on the lowest
>frequency of operation, the current maximum point is the ideal
>point at which to feed the antenna system. Adjust the length of
>the feedline until the current maximum point is at the transmitter
>and you will usually not need a tuner at all.

OK, I think that is a more technical explanations of what I said, so
we are in agreement. But for the sake of clarification, let me ask
this...

I have a yagi with about 25 ohms at the antenna. I connect 600 ohm
twin-lead and run it 1 1/2 wave lengths to my radio. This, I assume,
gives me the highest current at the end of the twin-lead. So I
connect it directly to the radio with a PL-259 and get an acceptable
load for the transmitter with low-loss in the feedline?

--
73 for now
Buck
N4PGW

2500. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 04:27:24 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <Qwcag.837$8K5.663@fe09.lga>
Source record: 59492

"K7ITM" <k7itm@msn.com> wrote in message
news:1147709818.209748.150830@y43g2000cwc.googlegroups.com...
> Yuri,
>
> It seems to me that when "W8JI" is associated with something, you
> assume immediately that it is wrong.

That's what might seem to you, but I point out gross misinformation, when I come across it. I express my opinion based on what I know or believe. I could be wrong and I gladly get educated. Mostly, if I see, measure or touch something, I believe it to be right. Mumbo-jumbo "scientwific explanation", taking off on tangent to justify the fallacy don't cut it with me.

> If you were to read Ronold W. P.
> King's explanation about small loop antennas in "Transmission Lines,
> Antennas and Waveguides", would you be any more apt to believe it? How
> about Glenn S. Smith's discussion of them in Johnson and Jasik's
> "Antenna Engineering Handbook" (second edition)? Each of those begins
> with a reasonably detailed description of an "unshielded" loop and
> moves on to a "shielded" loop.
>

I don't have the King's book, in Jasik's the treatment of small loops and shielded loops is dealing with some "medieval" designs. The closest to my version is his Fig. 5.23a showing balanced shielded loop. But then the 5-23bdoesn't make much sense to me, having small loop on the front of reflector, when the small loop has the minimum of radiation along the axis through the loop, and he places the reflector in the minimum - null direction? The way they show the loops, half of loop solid wire, half coax line, creates confusion what is antenna, what is shield, or perhaps combines them. I have not used those designs.

> In addition, can you expain to us how the current on the wires on the
> inside of the shield is NOT balanced by an equal current in the
> opposite direction on the inside surface of the shield? Please tell us
> in detail just what currents are where on the shielded loop. If you
> are going to try to tell us that some explanation is in error, please
> provide us with enough detail that we can make up our own minds. So
> far, all I've seen here is some vague reference to confusion about
> shields.
>
> The descriptions in each of the two references I gave above are far
> more detailed than what you have posted here, either of your own or of
> W8JI's, and I find them both enlightening--they are slightly different
> from each other--but both detailed enough that you can make up your own

> mind about what's really going on, and not have to read ranting
> generalities or statements with nothing to back them up.
>
> Cheers,
> Tom
>

I will not get tangled into currents, phasors, but describe my design of small shielded loop antenna that I used on 160m and this should perhaps shed some light on the controversy.

I used 1/2" copper water tubing (non ferrous material passing the magnetic field) for circular loop about 4 foot diameter. At the top the loop had gap, at the bottom it was mounted in small metallic box. Loop, box and mast were all DC connected and grounded. Mast was about 5 ft high, with Ham-m rotor at the base to rotate the contraption. This formed Electrostatic shield for the antenna.

From the connection box I threaded three turns of electrical house wire #12 and across the ends connected mica trimmer capacitor C1 (abt 1200 pF?) to resonate the three wire loop antenna at 1.830 kHz). Not connected to anything else, nor ground or loop.
Then I threaded one turn of the same #12 wire as a coupling turn. One end was connected to the coax braid, the other end through another mica trimmer capacitor C2 to the center conductor of the coax. Floating, not grounded or connected to other loop or tubing.
I tuned the C1 to resonate the three turns at the desired frequency and C2 to provide 50 ohm match to coax. Circuit wise this mirrors the LC parallel tuned circuit with link coupling and provide better signal than other published designs.
I tried version of this without copper tubing shield and with. I had local AC power line noise (within fractions of wavelength) and shielded loop attenuated the local noise.
The way I see this works, the three turns were the antenna, it was tunable across the band. The "link" coupling allowed to keep the symmetry of antenna and provided some isolation for common mode currents between the antenna and coupling (well known in LC tuned circuit with link coupling.). The copper tubing was ELECTROSTATIC SHIELD which let's the EM waves pass through.
If the copper tubing IS the antenna, then how does it work? Short, grounded in the center bent dipole? Then the radiation pattern should have maximum perpendicular to the plane of the loop/dipole. But the antenna has NULLS in that direction, corresponding to the properties of the 3 plus 1 wire loops.
You scientwists can play games with theories how it should behave, but the reality again shows how it behaves. Anyone can build the antenna as I described and VERIFY it. Wire loops without electrostatic shield tubing still work the same way as with the shield. So which IS antenna?

Another description of the subject antenna is at
http://www.tpub.com/content/antennaandmasts/TM-11-5985-352-14/css/TM-11-5985-352-14_31.htm

73 Yuri Blanarovich, K3BU, VE3BMV

2501. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 05:34:06 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ivdag.6947$fb2.4515@newssvr27.news.prodigy.net>
Source record: 59493

Gene Fuller wrote:
> Cecil is so good at quoting that he should have no problem with
> providing the exact unedited words from Kraus that support the
> arc-cosine analysis.

"It is generally assumed that the current distribution of an
infinitesimally thin antenna is sinusoidal, ..."

Simply look at Kraus' graph in Figure 14-2. A sinusoid with
current amplitude equal to 1.0 at the center and current
amplitude equal to zero at the end is obviously a cosine
wave. Since the magnitude varies from 1.0 at the center to
zero at the end, taking the arc-cosine of the magnitude
yields the distance from the center in degrees.
--
73, Cecil http://www.qsl.net/w5dxp

2502. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 05:54:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <TOdag.6951$fb2.815@newssvr27.news.prodigy.net>
Source record: 59494

Roy Lewallen wrote:
> It looks like Cecil is trying to use "phase" as a function of position,

Referenced to the source current, the phase of the forward traveling
wave current *IS* directly proportional to position along the dipole.
Any competent engineer knows that. So is the phase of the rearward
traveling wave current. That is obvious from the equations for those
two currents. Those are simply facts of physics that you probably
should try to comprehend instead of dismissing them.

Inet = Io*cos(X)*cos(wt) = Ifor*cos(-X+wt) + Iref*cos(X-wt)

Inet is the standing wave current. X is the distance in degrees from
the feedpoint. If the source current is 1.0 amps at 0 degrees, e.g.
from EZNEC, at t=0 Inet = Io*cos(X) = Ifor*cos(-X) + Iref*cos(X)

> As I pointed out some time ago, the envelope of a standing wave isn't in
> general sinusoidally shaped.

Balanis says: "If the diameter of each wire is very small (d << lamda)
the ideal standing wave pattern of the current along the arms of
the dipole is sinusoidal with a null at the end."

Kraus says: "It is generally assumed that the current distribution
of an infinitesimally thin antenna is sinusoidal,..."

d << lamda for an 80m dipole made out of #18 wire. I'm sorry to hear
that you disagree with both Balanis and Kraus.
--
73, Cecil http://www.qsl.net/w5dxp

2503. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 05:57:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <CRdag.6953$fb2.6610@newssvr27.news.prodigy.net>
Source record: 59495

Dave wrote:
> you guys are just fighting over your own statements since there was no
> initial technical question or statement that started this thread...

Doesn't have to be. This is a continuation of earlier threads.
And I'm not fighting - I'm simply stating the laws of physics
as asserted by Balanis, Kraus, and Hecht.
--
73, Cecil http://www.qsl.net/w5dxp

2504. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 06:02:22 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <OVdag.6954$fb2.3734@newssvr27.news.prodigy.net>
Source record: 59496

Dave wrote:
> if you will remember he was
> asking if he would get 25 ohms if he connected the braids together without
> the center conductors...

Here's the original posting:
****
I have an antenna that needs 100 ohm twin lead to match the impedance
of the feed point. The 450 ohm lead has messed up the match and
screwed up the resonance, does anone know of such an animal?
K4WYS
****

It bears no resemblence to your assertion above.
--
73, Cecil http://www.qsl.net/w5dxp

2505. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 06:13:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126irc4tg6h74b5@corp.supernews.com>
Source record: 59497

I haven't gone through this in detail yet, but one misconception is glaring:

Yuri Blanarovich wrote:
> . . .
> I used 1/2" copper water tubing (non ferrous material passing the magnetic
> field) for circular loop about 4 foot diameter. . .

If you believe that, it's no surprise that you're having difficulty understanding how a shielded loop works.

It's not hard to demonstrate that the (time-varying) magnetic field doesn't penetrate a non-ferrous shield, if you believe (correctly) that a time-varying magnetic field will produce a current on a nearby conductor. Simply put an oscillator or signal source into a copper box -- you can solder one op out of PC board material. Run some wires all around the inside which carry the oscillator signal, putting them as close to the shield wall as you like. Put a battery inside the box to power the oscillator and seal the box up. Then sniff around the outside of the box with any kind of magnetic field detector you can devise. If you have a little potted oscillator of some kind, you should be able to do this in a couple of hours at most.

Or, just connect your rig to a good dummy load with some double shielded coax and sniff around the outside of the copper coax shield. If you put the detector just outside the shield, the current on the inside of the shield will be much closer to the detector than the current on the center conductor. So if the shield is transparent to a magnetic field, your detector should go wild. (Make sure the rig is very well shielded, though, so no common mode currents make their way from the rig to the outside of the shield.)

Alternatively, if you'll spend some time with a good electromagnetics text learning about eddy currents and the like, you'll understand why you'd be wasting your time with those experiments.

Once you're convinced that the shield blocks the magnetic as well as electric field, you'll have to revise your theory on how a shielded loop works. And you'll find that Tom's explanation is correct.

Roy Lewallen, W7EL

2506. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 06:14:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <y5eag.6956$fb2.6414@newssvr27.news.prodigy.net>
Source record: 59498

Buck wrote:

>W5DXP wrote:
>>You're right, neglecting losses, the antenna
>>impedance is repeated every half wavelength. Neglecting losses,
>>that 100 ohm antenna feedpoint impedance will be repeated at half-
>>wavelength intervals for *any* feedline Z0, including 50 ohm coax.
>
> So far, so good. If the antenna is fed with 50 ohm coax, there will
> be great losses, ...

A 100 ohm antenna causes an SWR of 2:1 on 50 ohm coax. Lots
of hams don't even bother with a tuner when the SWR is 2:1. The
additional losses in 50 ohm coax due to an SWR of 2:1 are pretty
much negligible on 80m for reasonable lengths of feedline.

> I have a yagi with about 25 ohms at the antenna. I connect 600 ohm
> twin-lead and run it 1 1/2 wave lengths to my radio. This, I assume,
> gives me the highest current at the end of the twin-lead. So I
> connect it directly to the radio with a PL-259 and get an acceptable
> load for the transmitter with low-loss in the feedline?

The SWR on the 600 ohm line will be 600/25 = 24:1

The SWR on 50 ohm coax will be 50/25 = 2:1

For a 25 ohm single band antenna, I would be inclined to go with
the coax.
--
73, Cecil http://www.qsl.net/w5dxp

2507. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 06:22:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <nceag.6959$fb2.2526@newssvr27.news.prodigy.net>
Source record: 59499

Yuri Blanarovich wrote:

> "K7ITM" <k7itm@msn.com> wrote:
>>It seems to me that when "W8JI" is associated with something, you
>>assume immediately that it is wrong.
>
> That's what might seem to you, but I point out gross misinformation, when I
> come across it.

What gets missed quite often in these discussions is that
everyone agrees on 99 44/100 percent of the technical issues
and we tend not to discuss those issues. We only discuss the
56/100 percent of the issues upon which we disagree. It is
akin to the arguments between Einstein and Bohr. I suspect
that no two people here on r.r.a.a are in 100% agreement
on everything.
--
73, Cecil http://www.qsl.net/w5dxp

2508. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 08:36:34 UTC
From: w8ji@akorn.net
Message-ID: <1147768594.185037.278210@j73g2000cwa.googlegroups.com>
Source record: 59500

Cecil Moore wrote:
> Yuri Blanarovich wrote:
>
> > "K7ITM" <k7itm@msn.com> wrote:
> >>It seems to me that when "W8JI" is associated with something, you
> >>assume immediately that it is wrong.
> >
> > That's what might seem to you, but I point out gross misinformation, when I
> > come across it.
>
> What gets missed quite often in these discussions is that
> everyone agrees on 99 44/100 percent of the technical issues
> and we tend not to discuss those issues. We only discuss the
> 56/100 percent of the issues upon which we disagree.

Make no mistake about it, I disagree with everything Yuri has posted about the physics behind a "shielded loop".

I certainly don't want to be considered to be 99% in agreement with anyone who thinks a time-varying magnetic field can pass though a highly conductive copper wall, or any wall that is several skin depths thick, just as I don't want to be 99% in agreement with anyone who thinks a loading coil "replaces" or has the phase shift or "current drop" of missing electrical degrees.

The basic physical properties have to be understood before I'd be largely in agreement. If basic building blocks are wrong, our idea of how the worlds works must also be very distorted.

73 Tom

2509. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 08:40:48 UTC
From: w8ji@akorn.net
Message-ID: <1147768848.879753.206550@j33g2000cwa.googlegroups.com>
Source record: 59501

Owen Duffy wrote:
> On 15 May 2006 18:21:56 -0700, w8ji@akorn.net wrote:
>
>
> >watts at 160-40 meters and failure never was an issue. I high pot test
> >F connector cable assemblies to about 2000 volts peak, so I expect
> >current or moisture would be the limit.
>
> Tom, whilst they are likely to withstand thousands of volts, small
> coaxial cables are unlikely to withstand the heat from the
> corresponding current if applied for sufficient time.
>
> The focus in this discussion seems to be solely on the voltage
> withstand capability, whereas loss / ability to dissipate heat /
> temperature rise as installed are relevant and may be more
> constraining.
>
> Owen

But Owen, I've used a variety of F connectors for hundreds of hours at
high power at lower HF and on six meters.

He asked if anyone had direct experience, and I stated what my first
hand experience with them was.

People would be amazed at the amount of power a good grade RG-6 style
cable will handle and how much power that F connector will take.

73 Tom

2510. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 08:59:28 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ke4j629sohao643ec6b98bcsedjcnue6c7@4ax.com>
Source record: 59502

On 16 May 2006 01:40:48 -0700, w8ji@akorn.net wrote:

...

>
>But Owen, I've used a variety of F connectors for hundreds of hours at
>high power at lower HF and on six meters.
>
>He asked if anyone had direct experience, and I stated what my first
>hand experience with them was.
>
>People would be amazed at the amount of power a good grade RG-6 style
>cable will handle and how much power that F connector will take.

Tom, I agree with you. I use selected RG-6 cable myself, and it is greatly undervalued. But... my point was mainly, don't focus only on breakdown voltage, it is certainly a parameter that relates to instantaneous failure, but heat from losses (principally ohmic loss in the centre conductor) is an issue and may be more limiting. Of course, average power under typical voice SSB service is perhaps 2% of the PEP, so heat becomes less an issue than under higher duty cycle modes.

Discussion of F connectors inevitably leads to RG6. BNC connectors are readily available (at least over here) for RG6 and are my preferred choice.

Owen
--

2511. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 10:52:39 UTC
From: KC1DI <davekc1di@gmail.net>
Message-ID: <e4capa$vf9$1@emma.aioe.org>
Source record: 59503

John Ferrell wrote:
> I was being intentionally vague. I was hoping for some experiences or
> maybe even documentation. I have never seen it for anything other than
> small signal use.
>
> The question arose while experimenting with an RV antenna on a
> fiberglass Winnebago. I ordered a 12 foot piece of RG59 with
> connectors expecting BNC's. What I received was F connectors. I am
> inclined to simply try them.
>
> The initial reasoning was flawed anyway. I am planning a vertical 2
> meter dipole, hence the 70 ohm cable. Since I am feeding it with a 50
> ohm transceiver output there is going to be a little mismatch wherever
> I go. The transceiver does have a maximum output of 50 watts but the
> current magmount in a thin sliver of fender does not do well with that
> now. RF gets back into the laptop with the GPS software...
>
> I bet that is more than any one wanted to know!
> de W8CCW John
>
> On 15 May 2006 05:49:18 -0700, shoppa@trailing-edge.com wrote:
>
>> John Ferrell wrote:
>>> Any one know what power level an F connector can operate?
>> In real use it's probably better than a phono plug, and for example
>> Heath radios use phono plugs (HW-101 etc.) up to the 100W power level
>> up to 30MHz.
>>
>> If anything the F connector is going to be a better impedance match
>> into the VHF than a phono plug!
>>
>> Actual limit (if you want to push to the hairy edge where the connector
>> is getting damn hot) will depend on frequency, SWR, cabling, etc., that
>> you don't tell us.
>>
>> Tim.
> John Ferrell W8CCW

Hi Tim,

I've used them here for years in both HF and VHF work .. have had no
problems at 100w Levels even with swr's as High as 10:1.. give it a shot.
73 Dave KC1DI
by the way for all you G5RV users out there.. RG6 75 ohm and
f-connectors work very will and give a bit better of a match to the G5RV

than the standard 50 oh model.

2512. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 11:24:00 UTC
From: Felix <Felix.27wp16@news.radiobanter.com>
Message-ID: <Felix.27wp16@news.radiobanter.com>
Source record: 59516

Roy Lewallen Wrote:
> Buck wrote:
> . . .
> If it performs as well as you claim it does, or if it is similar to
> the performance of an EH per size,(for example, hypothetically
> speaking, a 3 foot antenna performs as well as a 1/2 wave vertical
> 20
> meter antenna), and if the cost and skill level required for building
> the antenna is suitable to me, I might be interested in purchasing
> the
> plans for your antenna.
> . . .
>
> You must mean, "If it performs as well as the EH antenna claims to
> perform." If it can do that, it's miraculous indeed. It's no trick to
> make an antenna perform as well as an EH -- a 3 foot high (fat)
> vertical
> performs as well as a 3 foot high EH.
>
> Roy Lewallen, W7EL

HERE A FEW RESULTS:

QRV with RoomCap antenna on 80m

On May 15th, 2006 I was QRV on 80 m during 1 1/2 hour.
Tcvr: TS-50 (100 W PEP), QRG = 3.770 - 3.787 Mhz
Antenna: RoomCap with 1.66m radiator length
installed on my car. SWR = 1.0
QTH: Peripheral part of city of Basel.

Conditions: The band was weak with a lot of QRN.

Here follows the contacts and the
received signal reports:

20:10 DJ6YF, 59+10, Hans, Bielefeld
20:10 DL3EAI, 59, Reino, Mittetal (nr border to PA)
20:14 DJ6LGB, 58, Peter, L&#65533;neburg
20:17 G4KHM, 57, John, nr. Brighton
20:23 DL1JGG, 58, Renald,Plauen
20:30 DC4HW, 59 Walter, Lauenburg nr Lueneburg
20:33 DG6DAG, 59+10, Otto, Nord-Hessen nr Kassel
20:40 YO4RDW, 57, Romeo, Odfbesei, Rumaenien
20:50 F4AWH, 59, Jean-Luc, nr Besancon
20:55 2E0BOT, 59, John, Stratford UK

21:10 DF9YK, 59, Wolfgang, Mainz
21:11 SP8TDV, 57, Adam, Lublin, Poland
21:13 HB9AQA, 59+10 - +20, Ferdi, nr Lenzburg
21:22 9A4M, 59, Mate, Sisah, Croatia
21:28 G1RVP, 57, Pete, Dereham
21:30 DJ6MM, 59+10, Paul, Eifel
21:38 DK5WN, 59, Thomas nr Erfurt
21:39 SP1DTE 58, Luk Koloberg, Poland
21:40 HB9XJ, 59+10, Hans, Zuerich
21:43 QRT

With best 73s

Felix HB9ABX

--
Felix

2513. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 12:28:28 UTC
From: Buck <not@this.time>
Message-ID: <7ahj6250v7cs5iu94q5i7n3eus8e1aaoaa@4ax.com>
Source record: 59504

>
>The SWR on the 600 ohm line will be 600/25 = 24:1
>
>The SWR on 50 ohm coax will be 50/25 = 2:1
>
>For a 25 ohm single band antenna, I would be inclined to go with
>the coax.

Ok, I learned something, but I would be inclined to go with the 1/2
wave of 75 ohm and then the 50 ohm ;)

--
73 for now
Buck
N4PGW

2514. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 12:39:37 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <fphj6254od9gk94p04kifi3pn5591s06kc@4ax.com>
Source record: 59505

Thanks to all, I will use F's in my experimenting. I will probably
need to fabricate an adapter for a UHF to F for the rig output but
that is not a big deal.

de W8CCW John

>
>I've used them here for years in both HF and VHF work .. have had no
>problems at 100w Levels even with swr's as High as 10:1.. give it a shot.
>73 Dave KC1DI
>by the way for all you G5RV users out there.. RG6 75 ohm and
>f-connectors work very will and give a bit better of a match to the G5RV
>than the standard 50 oh model.
John Ferrell W8CCW

2515. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 13:02:56 UTC
From: w8ji@akorn.net
Message-ID: <1147784576.931759.268640@j33g2000cwa.googlegroups.com>
Source record: 59506

Roy Lewallen wrote:
> I haven't gone through this in detail yet, but one misconception is glaring:
> Yuri Blanarovich wrote:
> > I used 1/2" copper water tubing (non ferrous material passing the magnetic
> > field) for circular loop about 4 foot diameter. . .
>
> If you believe that, it's no surprise that you're having difficulty
> understanding how a shielded loop works.
>
> It's not hard to demonstrate that the (time-varying) magnetic field
> doesn't penetrate a non-ferrous shield, if you believe (correctly) that
> a time-varying magnetic field will produce a current on a nearby
> conductor.

The experiment I did years ago used a copper wall in a one or two foot square thin sheet.

I made a link on one side through a high power 50 ohm load resistor. This allowed me to run significant known current through the resistor (and link) from a regular HF transmitter.

Using two probes, one a sensitive low voltage dial light bulb with two prongs soldered on and the other a multiple turn loop with diode/meter indicator, I could roughly check current in multiple places on both sides of the sheet.

It was very easy to see where the magnetic field (and current) goes. It does not pass through the wall. It's quite amazing to see how even a direct soldered connection on one side will not produce current (and a magnetic field) on the other side.

73 Tom

2516. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 13:17:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Whkag.72700$F_3.52530@newssvr29.news.prodigy.net>
Source record: 59507

w8ji@akorn.net wrote:
> Cecil Moore wrote:
>>What gets missed quite often in these discussions is that
>>everyone agrees on 99 44/100 percent of the technical issues
>>and we tend not to discuss those issues. We only discuss the
>>56/100 percent of the issues upon which we disagree.
>
> Make no mistake about it, I disagree with everything Yuri has posted
> about the physics behind a "shielded loop".

That's part of the 56/100 percent of the issues upon which you
disagree.

> ... I don't want to be 99% in agreement with anyone who
> thinks a loading coil "replaces" or has the phase shift or "current
> drop" of missing electrical degrees.

Just proves that no individual is right 100% of the time. 75m
bugcatcher coils obey the laws of physics and thus suffer a
delay in the real world. Hint: Contrary to the lumped circuit
model, *everything* has a delay in the real world. The only place
coils don't have a delay is in your mind where miracles and
magic are possible.

The loading coil causes a phase shift in accordance with the
laws of physics. The stinger causes a phase shift in accordance
with the laws of physics. The impedance discontinuity between
the coil and stinger causes a phase shift in accordance with
the laws of physics. There are NO missing degrees.

When you comprehend how an electrical 1/4WL stub can be 19 degrees
of 450 ohm line plus 18 degrees of 50 ohm line and be physically
0.1 WL long, then you will have comprehended reality.
--
73, Cecil http://www.qsl.net/w5dxp

2517. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 13:24:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pokag.72703$F_3.2536@newssvr29.news.prodigy.net>
Source record: 59508

Buck wrote:

>>The SWR on the 600 ohm line will be 600/25 = 24:1
>>
>>The SWR on 50 ohm coax will be 50/25 = 2:1
>>
>>For a 25 ohm single band antenna, I would be inclined to go with
>>the coax.
>
> Ok, I learned something, but I would be inclined to go with the 1/2
> wave of 75 ohm and then the 50 ohm ;)

"1/2 wave of 75 ohm" would make matters worse for a 25 ohm
antenna since the SWR would be higher than for 50 ohms.
What you need is 1/4WL of 35 ohm coax like RG83.
--
73, Cecil http://www.qsl.net/w5dxp

2518. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 13:25:43 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <rpkag.7011$fb2.3630@newssvr27.news.prodigy.net>
Source record: 59509

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Cecil is so good at quoting that he should have no problem with
>> providing the exact unedited words from Kraus that support the
>> arc-cosine analysis.
>
>
> "It is generally assumed that the current distribution of an
> infinitesimally thin antenna is sinusoidal, ..."
>
> Simply look at Kraus' graph in Figure 14-2. A sinusoid with
> current amplitude equal to 1.0 at the center and current
> amplitude equal to zero at the end is obviously a cosine
> wave. Since the magnitude varies from 1.0 at the center to
> zero at the end, taking the arc-cosine of the magnitude
> yields the distance from the center in degrees.

The key words are "infinitesimally thin," and "generally assumed."
With you, Cecil those words become just "thin," and "dead certain."
I'm glad you clarified that for us. I was beginning to wonder about
Kraus. Now I know it's just Kraus' message suffering from Cecil distortion.
73,
Tom Donaly, KA6RUH

2519. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 13:34:28 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Exkag.65999$Fs1.1464@bgtnsc05-news.ops.worldnet.att.net>
Source record: 59510

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Cecil is so good at quoting that he should have no problem with
>> providing the exact unedited words from Kraus that support the
>> arc-cosine analysis.
>
>
> "It is generally assumed that the current distribution of an
> infinitesimally thin antenna is sinusoidal, ..."
>
> Simply look at Kraus' graph in Figure 14-2. A sinusoid with
> current amplitude equal to 1.0 at the center and current
> amplitude equal to zero at the end is obviously a cosine
> wave. Since the magnitude varies from 1.0 at the center to
> zero at the end, taking the arc-cosine of the magnitude
> yields the distance from the center in degrees.

Cecil,

Sorry, I missed the comments that Kraus made about the phase of a standing wave. Is that the concept that is represented by the " ..." in your quote above?

73,
Gene
W4SZ

2520. Online ARRL antenna modeling course

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 13:35:46 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1147786546.054862.265680@j55g2000cwa.googlegroups.com>
Source record: 59511

Has anyone taken this? Your impressions? Does it specifically cover
any microwave antenna modelling? I assume EZNEC is the software used,
or is it something else?

73,
Glenn AC7ZN

2521. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 13:41:40 UTC
From: Buck <not@this.time>
Message-ID: <aglj62ldon0uhfbcikjo2cpogd3ibmeb7v@4ax.com>
Source record: 59512

On Tue, 16 May 2006 13:24:37 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Buck wrote:
>
>>>The SWR on the 600 ohm line will be 600/25 = 24:1
>>>
>>>The SWR on 50 ohm coax will be 50/25 = 2:1
>>>
>>>For a 25 ohm single band antenna, I would be inclined to go with
>>>the coax.
>>
>> Ok, I learned something, but I would be inclined to go with the 1/2
>> wave of 75 ohm and then the 50 ohm ;)
>
>"1/2 wave of 75 ohm" would make matters worse for a 25 ohm
>antenna since the SWR would be higher than for 50 ohms.
>What you need is 1/4WL of 35 ohm coax like RG83.

OOPS, I went back to the original problem with 100 ohm

--
73 for now
Buck
N4PGW

2522. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 14:04:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <EZkag.72714$F_3.45490@newssvr29.news.prodigy.net>
Source record: 59513

Tom Donaly wrote:
> The key words are "infinitesimally thin," and "generally assumed."
> With you, Cecil those words become just "thin," and "dead certain."

Kraus is using author-speak as most technical authors do to
avoid nit-picking from people like you. Balanis uses the words,
"very small" for the wire diameter.

> I'm glad you clarified that for us. I was beginning to wonder about
> Kraus. Now I know it's just Kraus' message suffering from Cecil distortion.

It is true for infinitesimally thin wire *AND* anything close
to that condition, i.e. also true for d << lamda, according
to Balanis who says: "If the diameter of each wire is very
small (d << lamda), the ideal standing wave pattern of the
current along the arms of the dipole is sinusoidal with a null
at the end."

The diameter of #18 wire is certainly very small compared to
a wavelength at 80m (0.003' << 246') ensuring that the standing
wave current distribution on the real world dipole is sinusoidal
within a certain degree of real world accuracy.

If you want to see the sinusoidal current waveform for yourself,
observe the current distribution reported by EZNEC for a G5RV
used on 20m. Anyone with EZNEC, presumably including W7EL,
can observe that sinusoidal standing wave current pattern.
--
73, Cecil http://www.qsl.net/w5dxp

2523. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 14:29:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Nklag.72725$F_3.31778@newssvr29.news.prodigy.net>
Source record: 59514

Gene Fuller wrote:
> Sorry, I missed the comments that Kraus made about the phase of a
> standing wave.

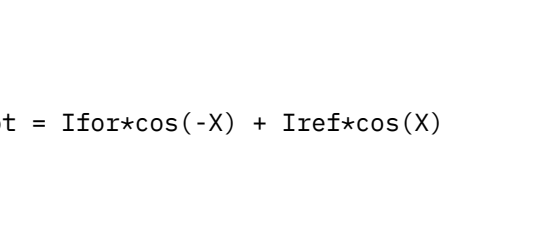
Quoting: "Figure 14-2 Relative current amplitude AND
PHASE along a center-fed 1/2WL cylindrical antenna."
Emphasis mine so you can't miss it this time.

I thought you were knowledgable enough to convert
Kraus's independent variable of wavelength to degrees in
his graph on page 464 of the 3rd edition of "Antennas For
All Applications". Allow me to assist you in that task.

The 'X' axis is "Distance from center of antenna in WL"

X in X in
wavelength degrees
0.00 0
0.05 18
0.10 36
0.15 54
0.20 72
0.25 90

Hope that helps you to understand Kraus's graph better.
Using the degree column, the standing wave current,
Itot, on that graph equals cos(X). The standing wave
current also equals Ifor*cos(-X) + Iref*cos(X) where
'X' is the phase angle of the forward traveling current
wave and the rearward traveling current wave. A phasor
diagram at 0.02WL = 72 degrees would look something
like this:



Incidentally, from the above phasor diagram, it is easy
to see why the phase angle of the standing wave current
is always zero (or 180 deg) since Ifor and Iref are
rotating in opposite directions at the same phase
velocity.

--
73, Cecil http://www.qsl.net/w5dxp

2524. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 14:30:52 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <wmlag.72726$F_3.4457@newssvr29.news.prodigy.net>
Source record: 59515

Buck wrote:

> Cecil Moore <mycall@hotmail.com> wrote:
>
>>Buck wrote:
>>>Ok, I learned something, but I would be inclined to go with the 1/2
>>>wave of 75 ohm and then the 50 ohm ;)
>>
>>"1/2 wave of 75 ohm" would make matters worse for a 25 ohm
>>antenna since the SWR would be higher than for 50 ohms.
>>What you need is 1/4WL of 35 ohm coax like RG83.
>
> OOPS, I went back to the original problem with 100 ohm

Then you should use 1/4 wave of 75 ohm, not 1/2 wave.
--
73, Cecil http://www.qsl.net/w5dxp

2525. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 15:12:04 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1147792324.735380.70590@j33g2000cwa.googlegroups.com>
Source record: 59517

Roy wrote, "It's not hard to demonstrate that the (time-varying)
magnetic field
doesn't penetrate a non-ferrous shield, if you believe (correctly) that
a time-varying magnetic field will produce a current on a nearby
conductor."

Yes, it's all easy to demonstrate. It's used in practice all the time:
the shielding in a transmitter, the aluminum shield cans around IF and
RF coils, the copper strap around a power transformer (used
specifically to lower the external magnetic field around the
transformer, so it won't couple into low-level audio circuits or affect
colors on a color CRT).

And indeed it all agrees with theory. For this one, you need little
more than Faraday's Law of Magnetic Induction.

It's fine with me if there are people who don't want to be bothered
with theory, but if they profess that something works by means
different from the theory that I understand and which agrees with the
observations I make, they shouldn't expect me to believe them without
putting some very serious effort into explaining why the accepted
theory is wrong. I believe Yuri when he tells me his antenna works.
But I'm not buying into his explanation of HOW it works.

Cheers,
Tom

2526. Re: Online ARRL antenna modeling course

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 15:12:32 UTC
From: Arie <4nec2@gmx.net>
Message-ID: <1147792352.039871.95370@u72g2000cwu.googlegroups.com>
Source record: 59518

glenn.b.dixon@gmail.com wrote:

> Has anyone taken this? Your impressions? Does it specifically cover
> any microwave antenna modelling? I assume EZNEC is the software used,
> or is it something else?

I only know about an 'offline' ARRL modelling course
(http://www.arrl.org/catalog/?item=8721).
It's based on EZnec, NecWin+ and/or 'pure' Nec2 models. You can also
use 4nec2 to run the models. From my memory: mostly HF, some VHF/UHF
and no microwave.

Arie.

2527. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 15:16:05 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126jr5pfp7uhn62@corp.supernews.com>
Source record: 59519

w8ji@akorn.net wrote:
>
> The experiment I did years ago used a copper wall in a one or two foot
> square thin sheet.
>
> I made a link on one side through a high power 50 ohm load resistor.
> This allowed me to run significant known current through the resistor
> (and link) from a regular HF transmitter.
>
> Using two probes, one a sensitive low voltage dial light bulb with two
> prongs soldered on and the other a multiple turn loop with diode/meter
> indicator, I could roughly check current in multiple places on both
> sides of the sheet.
>
> It was very easy to see where the magnetic field (and current) goes. It
> does not pass through the wall. It's quite amazing to see how even a
> direct soldered connection on one side will not produce current (and a
> magnetic field) on the other side.

I encourage Yuri to add this experiment to the ones I suggested, or just do this one. Understanding what happens to the currents and fields in the presence of a shield is essential to understanding "shielded" loop operation, and his statement about magnetic fields and non-ferrous shields shows that he lacks this understanding. Any explanation based on the mistaken idea that a non-ferrous shield is transparent to a magnetic field is bound to be seriously flawed.

Roy Lewallen, W7EL

2528. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 15:26:59 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <0krj629aguovcq9lblu23b58cg4pkt2n4e@4ax.com>
Source record: 59520

On Tue, 16 May 2006 05:54:59 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Roy Lewallen wrote:
>> It looks like Cecil is trying to use "phase" as a function of position,
>
>Referenced to the source current, the phase of the forward traveling
>wave current *IS* directly proportional to position along the dipole.
>Any competent engineer knows that. So is the phase of the rearward
>traveling wave current. That is obvious from the equations for those
>two currents. Those are simply facts of physics that you probably
>should try to comprehend instead of dismissing them.
>
>Inet = Io*cos(X)*cos(wt) = Ifor*cos(-X+wt) + Iref*cos(X-wt)
>
>Inet is the standing wave current. X is the distance in degrees from
>the feedpoint. If the source current is 1.0 amps at 0 degrees, e.g.
>from EZNEC, at t=0 Inet = Io*cos(X) = Ifor*cos(-X) + Iref*cos(X)
>
>> As I pointed out some time ago, the envelope of a standing wave isn't in
>> general sinusoidally shaped.
>
>Balanis says: "If the diameter of each wire is very small (d << lamda)
>the ideal standing wave pattern of the current along the arms of
>the dipole is sinusoidal with a null at the end."
>
>Kraus says: "It is generally assumed that the current distribution
>of an infinitesimally thin antenna is sinusoidal,..."
>
>d << lamda for an 80m dipole made out of #18 wire. I'm sorry to hear
>that you disagree with both Balanis and Kraus.

Could you explain how to build one of those antennas that has infinite
impedance at its ends?

73
Gary K4FMX

2529. Re: Online ARRL antenna modeling course

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 15:30:05 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <1emag.9073$zn1.1025@clgrps13>
Source record: 59521

>> Has anyone taken this? Your impressions? Does it specifically cover
>> any microwave antenna modelling? I assume EZNEC is the software used,
>> or is it something else?
>
> I only know about an 'offline' ARRL modelling course
> (http://www.arrl.org/catalog/?item=8721).
> It's based on EZnec, NecWin+ and/or 'pure' Nec2 models. You can also
> use 4nec2 to run the models. From my memory: mostly HF, some VHF/UHF
> and no microwave.
>
> Arie.

NEC does not have any specific frequency limit -- see FAQ
www.nittany-scientific.com
"What is the frequency limitation of NEC?

There is no limit on the frequency range although NEC is usually not used
for frequencies above 2 GHz.

NEC is dependent on the structure geometry not the frequency. If the
structure can be modeled following the NEC guidelines then the appropriate
frequency can be used."

If the ARRL "On-line" Antenna course (See Arie's link above) is anything
like Cebik's two books (Available at Nittany Scientific) then I would
strongly recommend it.

Frank

2530. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 15:43:54 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <_qmag.7050$fb2.6021@newssvr27.news.prodigy.net>
Source record: 59522

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> The key words are "infinitesimally thin," and "generally assumed."
>> With you, Cecil those words become just "thin," and "dead certain."
>
>
> Kraus is using author-speak as most technical authors do to
> avoid nit-picking from people like you. Balanis uses the words,
> "very small" for the wire diameter.
>
>> I'm glad you clarified that for us. I was beginning to wonder about
>> Kraus. Now I know it's just Kraus' message suffering from Cecil
>> distortion.
>
>
> It is true for infinitesimally thin wire *AND* anything close
> to that condition, i.e. also true for d << lamda, according
> to Balanis who says: "If the diameter of each wire is very
> small (d << lamda), the ideal standing wave pattern of the
> current along the arms of the dipole is sinusoidal with a null
> at the end."
>
> The diameter of #18 wire is certainly very small compared to
> a wavelength at 80m (0.003' << 246') ensuring that the standing
> wave current distribution on the real world dipole is sinusoidal
> within a certain degree of real world accuracy.
>
> If you want to see the sinusoidal current waveform for yourself,
> observe the current distribution reported by EZNEC for a G5RV
> used on 20m. Anyone with EZNEC, presumably including W7EL,
> can observe that sinusoidal standing wave current pattern.

Give it up, Cecil. You don't even have a coherent notion of the
meaning of the term "phase." Selectively quoting, and re-interpreting
Bibles in order to make it seem as if the Gods agree with you won't cut
it, either. All the simple-minded rural sophistry in the world won't
make you right, or the rest of us wrong.

73,
Tom Donaly, KA6RUH

2531. Re: Online ARRL antenna modeling course

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 15:45:44 UTC
From: Arie <4nec2@gmx.net>
Message-ID: <1147794344.523433.269470@i39g2000cwa.googlegroups.com>
Source record: 59523

I noticed, I did not read the link I supplied well enough. There also seems to be an online course. I presume it's based on the same book and model-files.

Concerning the frequency-limit, I know there are a number of 2.4 ghz wlan Nec2 models published on the internet and for myself I once modeled a 11 ghz satellite dish using both surface patches and a wire-grid. However I can not say very much about how well these models agree with the real world counterparts.

Arie.

2532. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 15:58:04 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <gEmag.7062$fb2.4015@newssvr27.news.prodigy.net>
Source record: 59525

Felix wrote:

> Roy Lewallen Wrote:
>
>>Buck wrote:
>>. . .
>>If it performs as well as you claim it does, or if it is similar to
>>the performance of an EH per size,(for example, hypothetically
>>speaking, a 3 foot antenna performs as well as a 1/2 wave vertical
>>20
>>meter antenna), and if the cost and skill level required for building
>>the antenna is suitable to me, I might be interested in purchasing
>>the
>>plans for your antenna.
>>. . .
>>
>>You must mean, "If it performs as well as the EH antenna claims to
>>perform." If it can do that, it's miraculous indeed. It's no trick to
>>make an antenna perform as well as an EH -- a 3 foot high (fat)
>>vertical
>>performs as well as a 3 foot high EH.
>>
>>Roy Lewallen, W7EL
>
>
> HERE A FEW RESULTS:
>
> QRV with RoomCap antenna on 80m
>
> On May 15th, 2006 I was QRV on 80 m during 1 1/2 hour.
> Tcvr: TS-50 (100 W PEP), QRG = 3.770 - 3.787 Mhz
> Antenna: RoomCap with 1.66m radiator length
> installed on my car. SWR = 1.0
> QTH: Peripheral part of city of Basel.
>
> Conditions: The band was weak with a lot of QRN.
>
> Here follows the contacts and the
> received signal reports:
>
> 20:10 DJ6YF, 59+10, Hans, Bielefeld
> 20:10 DL3EAI, 59, Reino, Mittetal (nr border to PA)
> 20:14 DJ6LGB, 58, Peter, Lï¿½neburg
> 20:17 G4KHM, 57, John, nr. Brighton

> 20:23 DL1JGG, 58, Renald,Plauen
> 20:30 DC4HW, 59 Walter, Lauenburg nr Lueneburg
> 20:33 DG6DAG, 59+10, Otto, Nord-Hessen nr Kassel
> 20:40 YO4RDW, 57, Romeo, Odfbesei, Rumaenien
> 20:50 F4AWH, 59, Jean-Luc, nr Besancon
> 20:55 2E0BOT, 59, John, Stratford UK
> 21:10 DF9YK, 59, Wolfgang, Mainz
> 21:11 SP8TDV, 57, Adam, Lublin, Poland
> 21:13 HB9AQA, 59+10 - +20, Ferdi, nr Lenzburg
> 21:22 9A4M, 59, Mate, Sisah, Croatia
> 21:28 G1RVP, 57, Pete, Dereham
> 21:30 DJ6MM, 59+10, Paul, Eifel
> 21:38 DK5WN, 59, Thomas nr Erfurt
> 21:39 SP1DTE 58, Luk Koloberg, Poland
> 21:40 HB9XJ, 59+10, Hans, Zuerich
> 21:43 QRT
>
>
> With best 73s
>
> Felix HB9ABX
>
>

Small mobile antennas (in terms of wavelength) aren't generally very
efficient. The above test only shows you can make contacts. It
doesn't address efficiency or field strength in relation to
a similar, but larger antenna. Have you put the plans online
for this thing, or are you just using them to augment your
net worth?
73,
Tom Donaly, KA6RUH

2533. Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 15:58:44 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <VEmag.22577$4H.10017@dukeread03>
Source record: 59524

Lets assume a single hop 40m signal from 400 miles away. What
elevation angle does it arrive at? Both stations are using inverted V's
at nominal height. There are no large bodies of water in between.

Daytime and/or nighttime.

--
73's de Ken KG0WX - Kadiddlehopper #11808,
Flying Pigs #-1055, Grid EM17io, TS-850SAT,
Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B

2534. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 16:22:43 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <t%mag.6$Xa5.5@fe11.lga>
Source record: 59376

"K7ITM" <k7itm@msn.com> wrote in message
news:1147792324.735380.70590@j33g2000cwa.googlegroups.com...
> Roy wrote, "It's not hard to demonstrate that the (time-varying)
> magnetic field
> doesn't penetrate a non-ferrous shield, if you believe (correctly) that
> a time-varying magnetic field will produce a current on a nearby
> conductor."
>
> Yes, it's all easy to demonstrate. It's used in practice all the time:
> the shielding in a transmitter, the aluminum shield cans around IF and
> RF coils, the copper strap around a power transformer (used
> specifically to lower the external magnetic field around the
> transformer, so it won't couple into low-level audio circuits or affect
> colors on a color CRT).
>
> And indeed it all agrees with theory. For this one, you need little
> more than Faraday's Law of Magnetic Induction.
>
> It's fine with me if there are people who don't want to be bothered
> with theory, but if they profess that something works by means
> different from the theory that I understand and which agrees with the
> observations I make, they shouldn't expect me to believe them without
> putting some very serious effort into explaining why the accepted
> theory is wrong. I believe Yuri when he tells me his antenna works.
> But I'm not buying into his explanation of HOW it works.
>
> Cheers,
> Tom
>
I am not selling explanations how it works.
I understand your and Roy's points. I am not claiming to try to formulate the infinitesimal theory of wasaaaap and I didn't try that with loading coils. Ensuing discussions helped me to better understand the mechanaism of how things work, the theory and how can I better apply them. I thank you for that.

What I have problem with someone claiming shield is not a shield (Why do they bother calling it shield or shielded loop?), when I saw the shielding properties of it in the vicinity of the local interfering signals. It performs as a shield to the antenna that is wound inside. Tom categorically denies SHIELD, it IS the ANTENNA he claims. (Like there is no current drop along the loading coil! - The gospel from the all-knowing guru.)
What I have problem with someone claiming the small loop antenna (three plus one turn) is not the antenna, but when I remove the shield, the "not

antenna" is still THE ANTENNA.

I am not arguing the mechanics or theory behind how the shield works, it may be transparency to magnetic field, it may be the voltage generated in the gap, bla, bla...
Based on my experience with the said antenna, I concluded that wire loops are THE antenna, shield works as an electrostatic shield.

I know that if I stick oscillator inside of 10' of 1/2" tubing, I will get hardly or no signal out. I know if I bend that tubing into a circle with gap and stick wire loop antenna inside, I can get signals out of that "shielded" antenna and can attenuate close by interfering signals. Shielding doesn't MAKE my antenna work (it works without shield too), shield enhances its rejection/shielding properties in near fields.
I know there are small loops and there are small shielded loops and they work and I have proved it.

Just don't tell me it is called shield because it is antenna, or that antenna inside the shield doesn't work, or shield doesn't shield from electrostatic fields, or that my antenna I described doesn't work as I described.

Tom may pontificate his ideas to his worshippers, but I don't swallow that. I point out my, and who else cares, disagreement, especially when I see his "ideas" migrating into ham literature.

Go ahead with your but, but, butts.....

73
Yuri Blanarovich, K3BU, VE3BMV

2535. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 16:33:29 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <z9nag.8$Xa5.5@fe11.lga>
Source record: 59377

Cecil,
Now we have special case of biiiig coils being antenna here.
Let the games begin!

Yuri

"Cecil Moore" <mycall@hotmail.com> wrote to W8JI:
>
> When you comprehend how an electrical 1/4WL stub can be 19 degrees
> of 450 ohm line plus 18 degrees of 50 ohm line and be physically
> 0.1 WL long, then you will have comprehended reality.
> --
> 73, Cecil http://www.qsl.net/w5dxp

2536. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 16:38:15 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <1enag.9$Xa5.2@fe11.lga>
Source record: 59378

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:VEmag.22577$4H.10017@dukeread03...
> Lets assume a single hop 40m signal from 400 miles away. What
> elevation angle does it arrive at? Both stations are using inverted V's
> at nominal height. There are no large bodies of water in between.
>
> Daytime and/or nighttime.
>
> --
> 73's de Ken KG0WX -

depends on the height of the reflecting/refracting layer, time of day,
sunspot number and associated geometry. Intensity of signals will depend on
how the radiation angle - pattern of the antennas fits the propagation
angles.
There are some propagation programs that will provide good answers based on
above data.

Yuri, K3BU

2537. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 16:50:31 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <1pSdnZw8m489nvfZRVnysA@bt.com>
Source record: 59379

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:VEmag.22577$4H.10017@dukeread03...
> Lets assume a single hop 40m signal from 400 miles away. What
> elevation angle does it arrive at? Both stations are using inverted
V's
> at nominal height. There are no large bodies of water in between.
>
> Daytime and/or nighttime.
>
> --
> 73's de Ken KG0WX
==========

The type of antenna or its radiation pattern has nothing whatever to do with the path taken by the radio wave through the ionosphere. The take-off angle and its name, generated by EZNEC, can be very misleading.

The radio path is simply a matter of trigonometry involving only the groundpath distance between transmitter and receiver and the height of the reflecting layer.

The height of the reflecting layer changes between day and night. And there may be more than one layer present in daylight. The layer actually used depends on frequency.

If the Tx and Rx stations are far apart, the trigonometry becomes a little bit complicated because of the curvature of the Earth's surface. But for groundpath distances up to 500 miles a flat earth can be assumed. Get a sheet of paper and a pencil and sketch the triangle to be solved. The average height of the F-Layer in darkness is about 200 miles. In daylight it is about 300 miles.

To do the actual calculations download program SKYTRIG from website below in a few seconds and run immediately. SKYTRIG is near the bottom of the list on the "Download Progs From Here" page. Just left-click on it.

.....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
.....

2538. Re: Online ARRL antenna modeling course

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 17:03:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126k1f0pmvagqcf@corp.supernews.com>
Source record: 59380

I've had many EZNEC users tell me they thought the course was very worthwhile.

As others have mentioned, there's no upper frequency limit to NEC or its derivative programs, but some of the geometries used at microwave frequencies don't lend themselves well to NEC modeling. I've done considerable modeling with EZNEC at 6 GHz and found the results to be satisfactory.

Roy Lewallen, W7EL

2539. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 17:12:55 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <wKnag.11$Xa5.7@fe11.lga>
Source record: 59381

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:126irc4tg6h74b5@corp.supernews.com...
>I haven't gone through this in detail yet, but one misconception is
>glaring:
>
> Yuri Blanarovich wrote:
>> . . .
>> I used 1/2" copper water tubing (non ferrous material passing the
>> magnetic field) for circular loop about 4 foot diameter. . .
>
> If you believe that, it's no surprise that you're having difficulty
> understanding how a shielded loop works.
>
> It's not hard to demonstrate that the (time-varying) magnetic field
> doesn't penetrate a non-ferrous shield, if you believe (correctly) that a
> time-varying magnetic field will produce a current on a nearby conductor.
> Simply put an oscillator or signal source into a copper box -- you can
> solder one op out of PC board material. Run some wires all around the
> inside which carry the oscillator signal, putting them as close to the
> shield wall as you like. Put a battery inside the box to power the
> oscillator and seal the box up. Then sniff around the outside of the box
> with any kind of magnetic field detector you can devise. If you have a
> little potted oscillator of some kind, you should be able to do this in a
> couple of hours at most.

That is called Faraday shield and does not function as Electrostatic shield.

> Or, just connect your rig to a good dummy load with some double shielded
> coax and sniff around the outside of the copper coax shield. If you put
> the detector just outside the shield, the current on the inside of the
> shield will be much closer to the detector than the current on the center
> conductor. So if the shield is transparent to a magnetic field, your
> detector should go wild. (Make sure the rig is very well shielded, though,
> so no common mode currents make their way from the rig to the outside of
> the shield.)
>
> Alternatively, if you'll spend some time with a good electromagnetics text
> learning about eddy currents and the like, you'll understand why you'd be
> wasting your time with those experiments.

I learned about shieldings, Faradyas, I use them, in equipment design, in RF and harmonics suppression, I built shielded room for university. But I also know the difference between the Farady shield and Electrostatic shield and seen them work. Maybe lumping all shields is as no good as lumping all coils ain't no good?

> Once you're convinced that the shield blocks the magnetic as well as
> electric field, you'll have to revise your theory on how a shielded loop
> works. And you'll find that Tom's explanation is correct.
>
> Roy Lewallen, W7EL

Roy,
I have magnetothermia machine which is about 200 W push-pull power generator at around 27 MHz. It uses single turn, shielded loop, made of coax, about 30 inch in circumference. Loop wire, antenna (center conductor of coax) is fed from the plates of two tubes, shield is open at the far end and grounded at the exit from the enclosure. I get those 200 W heating my body tissue with magnetic field. Maybe it has something to do with shielding being a fraction of a wavelength distance from the radiator and the properties of the magnetic and electric components in the antenna reactive near field region?

I know that this loop radiates along its circumference, not just from the gap in the shield. What's yer theory? Or it don't (ooops, can't) woyk?

You seem to associate and stick to wrongos and I am sorry you find their explanations correct, for the reality proves them wrong.

73 Yuri Blanarovich, K3BU

2540. Re: Online ARRL antenna modeling course

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 17:19:01 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <2k1k62lgg6sv9k5vt4c2lj3k3rkp9bd469@4ax.com>
Source record: 59382

If you are referring to EC-004, I took the course last fall.

I went into it knowing I was pretty antenna smart already. I deserved the humbling experience. As with most endeavors, if you have a lot of self discipline you could do fine just buying the book and some modeling software. If I had not taken the course, I would not have stayed on track. It was well worth the effort and the expense. The course uses Nec-2 or EZNEC. I opted for EZNEC+ mainly because I was able to try out the demo version. I have never regretted it and I have not felt the need for NEC-2.

I feel it has saved me a lot of frustration in dealing with my own antennas. It is not specific to any frequency or type of antennas. It provides you with the information on how to evaluate plans without having to suffer some mistakes. It also provides warnings about where modeling fails. I think it is worth both the time and money.

de W8CCW John

On 16 May 2006 06:35:46 -0700, glenn.b.dixon@gmail.com wrote:

>Has anyone taken this? Your impressions? Does it specifically cover
>any microwave antenna modelling? I assume EZNEC is the software used,
>or is it something else?
>
>73,
>Glenn AC7ZN
John Ferrell W8CCW

2541. End Fed Zepp Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 17:21:03 UTC
From: gsm@mendelson.com
Message-ID: <slrne6k1v3.n5v.gsm@cable.mendelson.com>
Source record: 59383

I was browsing the MFJ online catalog and saw an "End Fed Zepp" antenna.
It looks like it would fit nicely in the space I have. I'm in Israel,
so the hassle and expense of ordering ones make we want to try to build it.

I've seen some writeups on end fed zepps, which were a short wire on the
"ground" side and a longer wire on the "hot" side. The MFJ looks like
a long wire on the "hot" side and a matching network made from a piece
of 450 ohm ladder line.

It looks like the ladder line is hung from the center insulator and the
coax is connected to the middle (figuratively) of the ladder line. The long
wire is connected to the "hot" side and the "ground" side is not connected,
but used for an insulating support rope.

Anyone have any ideas, specs, or web page references?

Thanks,

Geoff.
--
Geoffrey S. Mendelson, Jerusalem, Israel gsm@mendelson.com N3OWJ/4X1GM
IL Voice: (07)-7424-1667 IL Fax: 972-2-648-1443 U.S. Voice: 1-215-821-1838
Visit my 'blog at http://geoffstechno.livejournal.com/

2542. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 17:21:54 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1147800114.467866.145700@g10g2000cwb.googlegroups.com>
Source record: 59384

Yuri,

Just once, and I'm done with this.

Someone somewhere along the line mistakenly called it a shield. They didn't understand how it works and what's important. Get over it. Look at just the "shield" with no wires inside. Isn't that exactly a single turn loop antenna? Isn't the feedpoint the gap in the loop?

If you put a wire (or several wires) through the inside of that tube you used to call the shield, they just pick up the signal from the feedpoint. Consider a single wire through the tube. There is a voltage across the gap, the feedpoint of the loop. Since there is essentially no voltage drop along the wire in the center, across the distance of the gap in the tube, then the voltage across the gap must appear as transmission line voltage across the coaxial feedlines which are made up of the wire and the inner surface of the tube. If you've arranged things symmetrically, then the total gap voltage will divide equally between the two. Then it's just standard coaxial lines from there to where you connect your receiver, or where you put a tuned tank.

Or if you have multiple wires through the tube, the net transmission line current divides among them. And you can resonate them with a capacitor, but that doesn't make them have antenna currents on them.

If you have another way to analyze it accurately, fine. I don't care. My way works for me, and it does not disagree with the _performance_ I've seen you post about. It does disagree with the _theory_ you've suggested.

As for WHY adding the "shield" helps get rid of local e-field noise (from sources less than a few wavelengths away, which at VLF might be kilometers), and why the nulls are more perfect, it's because symmetry is CRITICAL for that performance, and adding the outside tube allows you to make a more perfectly symmetrical loop than you can practically accomplish with just wires and all the tuning stuff you hang off it. If you are VERY careful to keep things symmetrical, you can also do it without the tube. But it takes amazingly little imbalance to screw things up.

Dat's it in a nutshell.

Cheers,
Tom

2543. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 17:42:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <U9oag.72762$F_3.13253@newssvr29.news.prodigy.net>
Source record: 59385

Gary Schafer wrote:
> Could you explain how to build one of those antennas that has infinite
> impedance at its ends?

An open circuit is close enough to infinite to satisfy
almost anyone. In virtually every technical textbook,
ideal conditions are assumed until one understands the
concepts involved. Then the real world conditions are
introduced. That's all I am doing - presenting the
concepts involved in an ideal dipole as described by
Kraus and Balanis. Do secondary real world conditions
exist in reality. Of course they do and nobody is
saying that they don't. The difference between infinity
and ten megohms is often negligible for analysis purposes.
--
73, Cecil http://www.qsl.net/w5dxp

2544. Re: Online ARRL antenna modeling course

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 17:49:11 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <126k43qa78ki3a5@corp.supernews.com>
Source record: 59386

Dear Mr. Dixon (AC7ZN):

I took the course. What a bargain! Though antennas are one of my areas, I found the course interesting. It also gave me first hand experience with "distance learning." Many Universities will be increasing their offerings using this scheme.

Unfortunately, the grammar and syntax of the presentations suggests that the work has not been proofread. Professor C's work suffers now and again from what must be transcription errors. A small number of the exam questions have a wrong right-answer.

Even with a few warts, I recommend taking the course.

73, Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Arie" <4nec2@gmx.net> wrote in message
news:1147792352.039871.95370@u72g2000cwu.googlegroups.com...
> glenn.b.dixon@gmail.com wrote:
>
> > Has anyone taken this? Your impressions? Does it specifically cover
> > any microwave antenna modelling? I assume EZNEC is the software used,
> > or is it something else?
>
> I only know about an 'offline' ARRL modelling course
> (http://www.arrl.org/catalog/?item=8721).
> It's based on EZnec, NecWin+ and/or 'pure' Nec2 models. You can also
> use 4nec2 to run the models. From my memory: mostly HF, some VHF/UHF
> and no microwave.
>
> Arie.
>

2545. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 17:57:44 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sooag.72772$F_3.37871@newssvr29.news.prodigy.net>
Source record: 59387

Tom Donaly wrote:
> Give it up, Cecil. You don't even have a coherent notion of the
> meaning of the term "phase." Selectively quoting, and re-interpreting
> Bibles in order to make it seem as if the Gods agree with you won't cut
> it, either. All the simple-minded rural sophistry in the world won't
> make you right, or the rest of us wrong.

When you lose the technical argument, Tom, you always respond
with ad hominem attacks devoid of any technical content.

Fact is, the phase of the forward traveling current referenced
to the source current is equal to the distance from the source
expressed in degrees. The laws of physics will not stand for
anything else. That same number of degrees *IS* the phase
angle of the traveling wave(s). Every competent engineer knows
that as it is obvious from the equations in any good textbook.
--
73, Cecil http://www.qsl.net/w5dxp

2546. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 18:03:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Atoag.72773$F_3.38900@newssvr29.news.prodigy.net>
Source record: 59388

Ken Bessler wrote:
> Lets assume a single hop 40m signal from 400 miles away. What
> elevation angle does it arrive at? Both stations are using inverted V's
> at nominal height. There are no large bodies of water in between.
>
> Daytime and/or nighttime.

That chart is in the ARRL Antenna Book. Assuming F2 layer
reflection, the arriving angle is reported to be in excess
of 50 degrees.
--
73, Cecil http://www.qsl.net/w5dxp

2547. Re: End Fed Zepp Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 18:13:34 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <iDoag.72780$F_3.67194@newssvr29.news.prodigy.net>
Source record: 59389

Geoffrey S. Mendelson wrote:
> Anyone have any ideas, specs, or web page references?

It looks like a standard single band Zepp to me. It has
a very high feedpoint impedance which the 1/4WL of
ladder-line transforms down to the neighborhood of
50 ohms. There will be some feedline radiation. Please
note MFJ's admonition: "REQUIRES BALANCED LINE ANTENNA
TUNER OR TUNER/BALUN"
--
73, Cecil http://www.qsl.net/w5dxp

2548. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 18:37:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126k6ugl2kpg100@corp.supernews.com>
Source record: 59390

Yuri Blanarovich wrote:
> . . .
> Tom may pontificate his ideas to his worshippers, but I don't swallow that.
> I point out my, and who else cares, disagreement, especially when I see his
> "ideas" migrating into ham literature.
> . . .

But Tom's explanation is correct. It's consistent with theory; alternate explanations aren't. If you're really interested in learning how a "shielded" loop works and won't accept Tom's explanation because it came from Tom, you can find a similar explanation in a number of reputable texts. I'll gladly provide references, if you ask before I leave for Dayton. Once you gain an understanding of some basic electromagnetic principles, the correctness of the explanation will be obvious.

Oh, and don't worry about Tom's ideas migrating into the literature. They were already in the literature well before any of us were born.

Roy Lewallen, W7EL

2549. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 18:44:31 UTC
From: w8ji@akorn.net
Message-ID: <1147805071.730458.111260@i40g2000cwc.googlegroups.com>
Source record: 59391

Cecil Moore wrote:
> Tom Donaly wrote:
> > Give it up, Cecil. You don't even have a coherent notion of the
> > meaning of the term "phase." Selectively quoting, and re-interpreting
> > Bibles in order to make it seem as if the Gods agree with you won't cut
> > it, either. All the simple-minded rural sophistry in the world won't
> > make you right, or the rest of us wrong.
>
> When you lose the technical argument, Tom, you always respond
> with ad hominem attacks devoid of any technical content.
>

Cecil,

I don't understand why you complain about Tom D. You do exactly the
same thing all through any discussion.

On the QRZ forum you have post after post edited by moderators, that's
something that almost never happens! It's all on QRZ for people to see.
The list moderator even made a very rare public appearance to directly
warn you about your style.

It's pretty tough to have a non-personal technical discussion with you
because you distort facts and resort to the very same ad hominem
attacks you dislike from others.

Why not set a good example rather than yelling about Tom D.?

73 Tom

2550. Retard Morgan whines!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 19:08:00 UTC
From: marky_morgan_internet_retard@yahoo.com
Message-ID: <1147806480.001701.155900@j33g2000cwa.googlegroups.com>
Source record: 59392
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

```
an Old friend wrote:
> marky_morgan_internet_retard@yahoo.com wrote:
> > an_old_friend wrote:
> > > get help the one size fits all response
> >
> > It's the only response that your alcohol and drug addled tiny working
> > brain cell can manage, stupid.
>
> more

More whining like a cunt, just what we've come to expect from you,
Markie.
```

2551. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 19:27:03 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <OKidnaUiXYDTtffZnZ2dnUVZ8s6dnZ2d@bt.com>
Source record: 59393

Cec, there you go again, quoting the bibles!

If the F2 is present then it must be daylight.

And if its daylight then the E-Layer must also be present.

For a groundpath distance of 400 miles the most likely reflector is
the E-Layer. In daylight the E-Layer is an excellent, stable
reflector. Furthermore, the radio path distance is considerably
shorter than via the higher F1 or F2-Layers.

The height of the E-Layer is about 70 miles.

Assuming a flat Earth, the elevation angle is -

ArcTan(70/200) = 19 degrees.

It depends to some extent on the E-Layer critical frequency and the
MUF. If the MUF is low enough and the transmit frequency is high
enough, e.g., 14 or 21 MHz, then the wave may pass right through the
E-Layer and be reflected most likely by the F1-Layer at a height of
roughly 300 miles.

Signals received via the F-Layers, if received at all, will be weaker
than via the E-Layer, if only because the path length is greater.

The elevation angle via the F1-Layer will be about -

ArcTan(300/200) = 56 degrees.

At night the E and F2 layers disappear. There remains only the
nighttime F at a height of about 200 miles to give an elevation angle
of 45 degrees.

That is, of course, if the nighttime-F critical frequency and MUF
allows propagation. There are such things as skip distances.

(Roy, no, I havn't made arrangements with high power broadcasters at
known distances to make tests to prove the foregoing predictions. And
yes, I know it's refraction and not reflection.)

Reg, G4FGQ.
==

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Atoag.72773$F_3.38900@newssvr29.news.prodigy.net...
> Ken Bessler wrote:
> > Lets assume a single hop 40m signal from 400 miles away. What
> > elevation angle does it arrive at? Both stations are using

inverted V's
> > at nominal height. There are no large bodies of water in between.
> >
> > Daytime and/or nighttime.
>
> That chart is in the ARRL Antenna Book. Assuming F2 layer
> reflection, the arriving angle is reported to be in excess
> of 50 degrees.
> --
> 73, Cecil http://www.qsl.net/w5dxp

2552. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 20:01:54 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Scqag.111196$eR6.102444@bgtnsc04-news.ops.worldnet.att.net>
Source record: 59394

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> Sorry, I missed the comments that Kraus made about the phase of a
>> standing wave.
>
>
> Quoting: "Figure 14-2 Relative current amplitude AND
> PHASE along a center-fed 1/2WL cylindrical antenna."
> Emphasis mine so you can't miss it this time.
>
> I thought you were knowledgable enough to convert
> Kraus's independent variable of wavelength to degrees in
> his graph on page 464 of the 3rd edition of "Antennas For
> All Applications". Allow me to assist you in that task.
>
> The 'X' axis is "Distance from center of antenna in WL"
>
> X in X in
> wavelength degrees
> 0.00 0
> 0.05 18
> 0.10 36
> 0.15 54
> 0.20 72
> 0.25 90
>
> Hope that helps you to understand Kraus's graph better.
> Using the degree column, the standing wave current,
> Itot, on that graph equals cos(X). The standing wave
> current also equals Ifor*cos(-X) + Iref*cos(X) where
> 'X' is the phase angle of the forward traveling current
> wave and the rearward traveling current wave. A phasor
> diagram at 0.02WL = 72 degrees would look something
> like this:
>
> / Iref
> /
> /
> +-----> Itot = Ifor*cos(-X) + Iref*cos(X)
> \
> \
> \ Ifor
>

> Incidentally, from the above phasor diagram, it is easy
> to see why the phase angle of the standing wave current
> is always zero (or 180 deg) since Ifor and Iref are
> rotating in opposite directions at the same phase
> velocity.

Cecil,

I don't know why you go through all of these gyrations. The phase shown by Kraus is durn close to zero. Everyone else who has joined in on this thread agrees; there is no meaningful phase characteristic for a standing wave. Your last sentence above says the same thing.

It seems you simply like to argue, even when there is no disagreement. Perhaps you need a dog to go with your hog. 8-)

73,
Gene
W4SZ

2553. Re: End Fed Zepp Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 20:10:26 UTC
From: KC1DI <davekc1di@gmail.net>
Message-ID: <e4dbf4$d65$1@emma.aioe.org>
Source record: 59395

Geoffrey S. Mendelson wrote:
> I was browsing the MFJ online catalog and saw an "End Fed Zepp" antenna.
> It looks like it would fit nicely in the space I have. I'm in Israel,
> so the hassle and expense of ordering ones make we want to try to build it.
>
> I've seen some writeups on end fed zepps, which were a short wire on the
> "ground" side and a longer wire on the "hot" side. The MFJ looks like
> a long wire on the "hot" side and a matching network made from a piece
> of 450 ohm ladder line.
>
> It looks like the ladder line is hung from the center insulator and the
> coax is connected to the middle (figuratively) of the ladder line. The long
> wire is connected to the "hot" side and the "ground" side is not connected,
> but used for an insulating support rope.
>
> Anyone have any ideas, specs, or web page references?
>
> Thanks,
>
> Geoff.
Hi Geoff,

It's a standard end fed Zepp (The Zepp was designed as a single band
antenna , but will work with varying degrees of performance on other
bands as well. it's quite simple 1/2wave flatop endfed with open wire
line 1/4 wave (figure the velocity factor in) must be fed with a
balanced tuner. they can work quite well but there will be some feed
line radiation , that's not always bad. see the following write up
http://www.cebik.com/gup/gup12.html

73 Dave Kc1di

2554. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 20:12:25 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1147810345.636861.297290@j55g2000cwa.googlegroups.com>
Source record: 59396
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

```
marky_morgan_internet_retard@yahoo.com wrote:
> an Old friend wrote:
> > marky_morgan_internet_retard@yahoo.com wrote:
> > > an_old_friend wrote:
> > > > get help the one size fits all response
> > >
> > > It's the only response that your alcohol and drug addled tiny working
> > > brain cell can manage, stupid.
> >
> > more delsional poor boy
>
> More whining like a cunt, just what we've come to expect from you,
> Markie.
get help
```

2555. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 20:21:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126kd1tdr2f4mcc@corp.supernews.com>
Source record: 59397

Yuri Blanarovich wrote:
> . . .
> I learned about shieldings, Faradyas, I use them, in equipment design, in RF
> and harmonics suppression, I built shielded room for university. But I also
> know the difference between the Farady shield and Electrostatic shield and
> seen them work. Maybe lumping all shields is as no good as lumping all coils
> ain't no good?

Sorry, you're not making much sense to me. You said that a non-ferrous shield is transparent to a (time-varying) magnetic field. The experiments I proposed illustrate that this is false. This has nothing to do with what name you attach to a shield.
>
> Roy,
> I have magnetothermia machine which is about 200 W push-pull power generator
> at around 27 MHz. It uses single turn, shielded loop, made of coax, about 30
> inch in circumference. Loop wire, antenna (center conductor of coax) is fed
> from the plates of two tubes, shield is open at the far end and grounded at
> the exit from the enclosure. I get those 200 W heating my body tissue with
> magnetic field.

Hm. How do you know it's from just the magnetic field?

This is really interesting. Just a couple of postings ago, you said that a non-ferrous shield is transparent to a magnetic field. Now you say that a magnetic field is heating your body. Do you have some embedded steel shrapnel or something making your body ferrous, or do you just eat lots of nails and scrap metal?

Maybe it has something to do with shielding being a fraction
> of a wavelength distance from the radiator and the properties of the
> magnetic and electric components in the antenna reactive near field region?

What has? The heating? That's due to the lossiness of bodily fluids in the presence of either time-varying magnetic or electric fields.

> I know that this loop radiates along its circumference, not just from the
> gap in the shield. What's yer theory? Or it don't (ooops, can't) woyk?

If you'll read what Tom has posted, or a description in any good text, you'll find that the whole circumference of a "shielded" loop radiates. The field comes from current on the outside of the "shield", not from some field penetrating the shield. That's my theory. It's the same as Tom's, and that of every respected author I've read.

> You seem to associate and stick to wrongos and I am sorry you find their
> explanations correct, for the reality proves them wrong.

Reality proves Newton wrong -- any fool can see that moving objects come to rest on their own. There's no conflict between theory and reality -- just between theory and people's interpretations of what they're seeing.

I'll stick with the theory that's been known and confirmed for over a century. People with alternate theories, like yours, will have to provide some extraordinary proof to sway my thinking.

It seems you're more interested in proving Tom to be wrong about something -- anything! -- than taking the effort to really understand what's actually happening. So nothing else I can post will help you. I hope the lurkers have gotten something from this, though.

Roy Lewallen, W7EL

2556. mechanical question, aluminum swaged joints

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 20:23:57 UTC
From: Dave <noone@nowhere.com>
Message-ID: <fMadneXX9vt_qffZRVn-gw@crocker.com>
Source record: 59398

Anyone a guru on swaged aluminum joints?? When swaging 1.5" tubing down to accept 1.25" tubing what would be an acceptable ID tolerance??

2557. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 20:25:30 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126kd9tr5oi6ga1@corp.supernews.com>
Source record: 59399

> Cecil Moore wrote:

>> When you lose the technical argument, Tom, you always respond
>> with ad hominem attacks devoid of any technical content.

Chuckle. A perfect example of an ad hominem attack devoid of any technical content.

Roy Lewallen, W7EL

2558. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 20:25:46 UTC
From: Dave <noone@nowhere.com>
Message-ID: <hN2dnSxEoMHKqPfZnZ2dnUVZ_s-dnZ2d@crocker.com>
Source record: 59400

yeah, i know, you guys are so busy fighting with each other that you can't see the forest for the trees. keep going, its still raining here and may be for a few more days yet!

"Cecil Moore" <mycall@hotmail.com> wrote in message news:CRdag.6953$fb2.6610@newssvr27.news.prodigy.net...
> Dave wrote:
>> you guys are just fighting over your own statements since there was no
>> initial technical question or statement that started this thread...
>
> Doesn't have to be. This is a continuation of earlier threads.
> And I'm not fighting - I'm simply stating the laws of physics
> as asserted by Balanis, Kraus, and Hecht.
> --
> 73, Cecil http://www.qsl.net/w5dxp

2559. Re: Online ARRL antenna modeling course

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 20:28:23 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <HBqag.28062$4L1.15838@newssvr11.news.prodigy.com>
Source record: 59401

Glenn, and others- Have the text book for this course, and it costs
$39.95, + shipping (think $7.50), and it is fairly comprehensive,
several hundred pages (1 inch thick)!, and has 31 lessons, +
appendices, and the answers to the questions in the lessons.
It's ISBN # is 0-87259-872-1 . If you sign up for the course,
this manual is available, in .PDF format (have lots of ink and paper!)
as a download! Unfortunately, had other things come up, so didnt get to
even start the course, but from what in in the textbook, it is more than
worth the money! Well worth the money if you have EZNEC, or other
varieties of NEC. Wish had the ambition to try it again. Think it would
be better than most of the Leagues antenna books, for reference purposes!
Here is the Table of Contents:
Familiarization with antenna modeling
The language of modeling
Setting up an antenna model
Antenna model outputs
Model sources
Model grounds
Frequency selection, sweeps and scaling
Antenna loads
Transmission lines
Antenna model adequacy testing
Workarounds for NEC-2 limitations
Modeling by Equation
Practical modeling
Advanced and specialized modeling
...and more.

Hope this helps, Jim NN7K

glenn.b.dixon@gmail.com wrote:
> Has anyone taken this? Your impressions? Does it specifically cover
> any microwave antenna modelling? I assume EZNEC is the software used,
> or is it something else?
>
> 73,
> Glenn AC7ZN
>

2560. Re: Online ARRL antenna modeling course

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 21:05:04 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1147813504.486274.201130@38g2000cwa.googlegroups.com>
Source record: 59402

Thank you all for your input.
Glenn

2561. Anecdotal Antenna Metric, was Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 21:11:58 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1147813918.938979.288020@j55g2000cwa.googlegroups.com>
Source record: 59403

Ah, the "it works because I made contacts with the following DX"
antenna argument.

This may be an extremely compelling way of measuring performance of an
antenna system if done correctly.

It's certainly the most compelling kind of marketing argument snagging
prospective "magic antenna" buyers, especially those who don't have
another antenna up for comparison. But is there a way to make such an
anecdotal claim and have it mean something?

I'm thinking something along the lines of probability of making contact
with a station with identical equipment, averaged over a very very long
time.

If you know the statistical ionospheric loss for the path, the power
levels involved, and antenna gain (or LOSS) you can calculate such a
thing.

I've heard an argument recently that a particular antenna system must
not be too inefficient because it was able to produce contacts with
stations in Australia and New Zealand. The data below are in the same
category.

How do you know that the RoomCap antenna contacts were not made because
the stations on the OTHER END have much MUCH better antennas?

The dynamic range of signals present on the amateur bands is enormous.
You could have an antenna with a gain of -35dBi and still make regular
contacts. That doesn't mean it's good. How about if we stick to dB
gain relative to some simple reference antenna or the isotropic for
antenna reporting?

Don't get me wrong, you can have tons of fun with a bad antenna. I'm
sure that all the great DX I can work with my 100 feet of magnet wire
at 30 feet is largely due to the stations on the other end, and if
you're doing the best you can given the limitations of the situation,
then you're holding up your end of the DX bargain.

I worked 9M2CNC the other day on 17m with my antenna system! Does that
mean I get to sell it for $190 to suckers? Or does it just mean that
the propagation was good, the station on the other end was good, and
I'm managing to not turn all of my 100W into local heating?

73,
Dan
N3OX

> >
> >
> > HERE A FEW RESULTS:
> >
> > QRV with RoomCap antenna on 80m
> >
> > On May 15th, 2006 I was QRV on 80 m during 1 1/2 hour.
> > Tcvr: TS-50 (100 W PEP), QRG = 3.770 - 3.787 Mhz
> > Antenna: RoomCap with 1.66m radiator length
> > installed on my car. SWR = 1.0
> > QTH: Peripheral part of city of Basel.
> >
> > Conditions: The band was weak with a lot of QRN.
> >
> > Here follows the contacts and the
> > received signal reports:
> >
> > 20:10 DJ6YF, 59+10, Hans, Bielefeld
> > 20:10 DL3EAI, 59, Reino, Mittetal (nr border to PA)
> > 20:14 DJ6LGB, 58, Peter, Lüneburg
> > 20:17 G4KHM, 57, John, nr. Brighton
> > 20:23 DL1JGG, 58, Renald,Plauen
> > 20:30 DC4HW, 59 Walter, Lauenburg nr Lueneburg
> > 20:33 DG6DAG, 59+10, Otto, Nord-Hessen nr Kassel
> > 20:40 YO4RDW, 57, Romeo, Odfbesei, Rumaenien
> > 20:50 F4AWH, 59, Jean-Luc, nr Besancon
> > 20:55 2E0BOT, 59, John, Stratford UK
> > 21:10 DF9YK, 59, Wolfgang, Mainz
> > 21:11 SP8TDV, 57, Adam, Lublin, Poland
> > 21:13 HB9AQA, 59+10 - +20, Ferdi, nr Lenzburg
> > 21:22 9A4M, 59, Mate, Sisah, Croatia
> > 21:28 G1RVP, 57, Pete, Dereham
> > 21:30 DJ6MM, 59+10, Paul, Eifel
> > 21:38 DK5WN, 59, Thomas nr Erfurt
> > 21:39 SP1DTE 58, Luk Koloberg, Poland
> > 21:40 HB9XJ, 59+10, Hans, Zuerich
> > 21:43 QRT
> >
> >
> > With best 73s
> >
> > Felix HB9ABX
> >
> >
>
> Small mobile antennas (in terms of wavelength) aren't generally very
> efficient. The above test only shows you can make contacts. It
> doesn't address efficiency or field strength in relation to
> a similar, but larger antenna. Have you put the plans online
> for this thing, or are you just using them to augment your
> net worth?

> 73,
> Tom Donaly, KA6RUH

2562. Re: mechanical question, aluminum swaged joints

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 21:29:52 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1147814992.554303.279380@u72g2000cwu.googlegroups.com>
Source record: 59404

Diameter tolerance or out of round? It's probably not too big of a deal for most applications especially if you're going to split/slit and clamp it.

You're probably better off erring on the side of slight interference if you're splitting and clamping and adjustability is not very important.

If you're looking to make a sliding adjustable joint, I'd keep a nice tight tolerance, maybe no more than a few thousandths of an inch if you can do so. If you can't, it's not a big deal, but a good mechanical fit will allow sliding while still giving lots of strength.

If you make the fit loose (>10 thousandths) you're going to be relying on your hose clamps or bolts to do all the holding and you're probably going to really only get contact under the clamping points, which is OK in a lot of applications. A better fit will spread out the clamping force more.

73,
Dan
N3OX

2563. markie-tard usenet homo

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 21:55:09 UTC
From: an_old_homo@yahoo.com
Message-ID: <1147816509.721764.164840@j73g2000cwa.googlegroups.com>
Source record: 59405
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,alt.politics.homosexuality,rec.radio.amateur.policy

markie be nimble

markie be quick

markie went down on a fruit nigger's dick!

2564. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 22:17:41 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <TtSdnTGso5_KzffZnZ2dnUVZ8tydnZ2d@bt.com>
Source record: 59406

> That is, of course, if the nighttime-F critical frequency and MUF
> allows propagation. There are such things as skip distances.
>
==========

Simplified Critical Frequencies, MUF and Skip Distances.

At a vertical elevation angle of 90 degrees, the Critical Frequency is that frequency above which the radio wave passes right through the layer and is not reflected.

It may be reflected back to Earth by a higher layer if there is one. If the critical frequency of the higher layer is not high enough then the wave may pass through that layer too and be lost forever.

Critical frequencies are generally at the lower HF frequencies and depend on geographical latitude, the angle of the sun, time of day, winter or summer, and on the state of the sun. That's why Near Vertical Incidence transmissions are at low frequencies in the 80m and sometimes in the 40m bands and are uncertain.

As the transmit elevation angle changes from vertical, the angle of incidence of the wave with the ionospheric layer becomes less than 90 degrees and frequencies greater than critical begin to be reflected.

The Maximum Usable Frequency (MUF), that is the highest frequency which is reflected, is aways higher than the critical frequency. It is given by MUF = Fcrit/Sin(Phi) where Phi is the angle of incidence of the wave with the layer. The MUF can be several times critical frequency - conditions which occur at very low transmit elevation angles.

This explains how best DX is obtained on the 15m and 10m amateur bands at the height of the sun-spot cycle when critical frequencies are at their maximum but still relatively low. Nobody points their 10m beams up into the sky to work DX. Very low angle radiation is called for. Yagi beam booms are horizontal, pointed at the horizon.

The lower the elevation angle of the radio path the higher is the MUF. There is a skip distance. At distances less than the skip distance nothing can be heard. This is because the operating frequency is too high. It is greater than the MUF and the wave passes through the layer without reflection. The lower the operating frequency the shorter is the skip distance. Eventually, at MF, there is only Near Vertical Incidence radiation and groundwave.

I trust the foregoing makes sense.

There is a short table of typical critical frequencies in the notes
attached to program SKYTRIG. They have been collected over the years
from various sources. MUF = Fcrit/Sin(Phi). To find Phi use the
program. It's only trigonometry.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

2565. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 22:33:11 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <Hqsag.5544$u4.4017@newsread1.news.pas.earthlink.net>
Source record: 59407
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
news:38c8.gop.17.1@news.alt.net...
>
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1147586170.894157.292250@d71g2000cwd.googlegroups.com...
>
> Slow Code wrote:
>> "an_old_friend" <konstans@hotmail.com> wrote in
>> news:1147549161.064623.59130@j33g2000cwa.googlegroups.com:
>>
>> >
>
>> >> Now that does not surprise me one bit.
>> >>
>> >> Have a good life loser.
>> >
>> > that I am wise enoughto want a reutn opn my investment makes me a
>> > loser?
>>
>>
>> I have a request OM. Could you please proof-read your posts before you
>> hit the send button? Tnx in advance.
>
> no you can't have it takes too much time this has been explained over
> and over agin
>
> you don't like it don't read my stuff is one of your options
>>
>>
>> 73
>
> after all you dicided to use something i find insulting right therefor
> it cw related meaning
>>
> Using a spell check program takes but a few seconds. You refuse to do so,
> and we must thereby assume that, 1. You are lazy. 2. You are far too
> dense
> to know how to use one. 3. Your head is so firmly emplanted in your rectal
> cavity that you cannot remove it. 4. All of the above.
>
>

>

4

Dan/W4NTI

2566. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 22:33:12 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <lqsag.5545$u4.4612@newsread1.news.pas.earthlink.net>
Source record: 59408
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Terry Steer" <terry.steer@btinternet.com> wrote in message
news:kbydne3XbsdFPPjZRVnygw@bt.com...
> "Radio Buff" <em@il.here> wrote in message
> news:us69g.1632$y4.1107@newsread2.news.pas.earthlink.net...
>> "Galen, W8LNA" <w8lna@arrl.net> wrote in
>> news:shv8g.488$oa1.132@news02.roc.ny:
>>
>>> Radio Buff wrote:
>>>>
>>>> As ham radio test standards have lowered over the years, I've noted a
>>>> marked increase in the amount of obscenity, profanity, and indecency.
>>>>
>>>> RB
>>>
>>> At the same time the price of gasoline has gone up, the minimum wage has
>>> gone up, the stock market has gone up but in just about all areas of
>>> society mutual respect and courtesy have gone down.
>>>
>>> I think it has very little if anything at all to do with Morse code.
>>>
>>> W8LNA
>>
>>
>>
>> And I've never heard a couple ops insult or cuss each other out in CW
>> either.
>
>> sc
>
> How about: ZBK2 I am receiving your traffic garbled
> ZBM2 Place a competent operator on this circuit
>
>

R R R INT ZBZ INT ZBK INT RGR KKK

Dan/W4NTI

2567. Re: "Ocean as antenna"

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 22:48:27 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <6Fsag.632$Bh.32@fe10.lga>
Source record: 59409

"Roy Lewallen" <w7el@eznec.com> wrote >
>>K3BU:
>> Just wondering if there is any potential in this or if anything was
>> written up in the antenna books pro or con.
>
> I think you're on your own. The path is clear for you to be the first to
> make great discoveries! Just be sure to take a little time off along the
> way to do make those coil measurements.
>
> Roy Lewallen, W7EL

Just stumbled on this item, indicating that youze guyz might be defficient in more areas and I should revise my treatment of some of your previous answers.

from Johnson - Jasik, Antenna Engineering Handbook, 2nd Ed., p. 5-21:

"The brevity of this review requires omission of many interesting topics concerning loop antennas. In recent years, there has been considerable study of loop antennas in close proximity to or embedded in material media such as the ocean, the earth, or a plasma. The electrical characteristics of loops in these instances can be quite different from those of loops in unbounded free space, as described in this review. The major applications of this work are in the areas of subsurface communication and detection (geophysical prospecting).
The loop antenna near a planar interface separating two semi-infinite material regions, such as the air and the earth, has been investigated extensively. When the loop is electrically small, it can be approximated by an elementary magnetic dipole, and the electromagnetic field away from the loop can be determined from the classical analysis of Sommerfeld. If the field near the electrically small loop is required, the approximation by a magnetic dipole may no longer be adequate, and a loop with a finite radius and a uniform current must be considered. For the electrically large loop near a planar interface, an analysis that allows a nonuniform current in the loop, such as the Fourier-series analysis for the circular loop, must be used."

So this idea goes into "to do" pile to be researched or explored.

73 Yuri, K3BU

2568. Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 22:55:13 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-BCC022.17554316052006@news-rdr-02.rdc-kc.rr.com>
Source record: 59410

What is the correct way to determine the non-resonant feedline length of
a multiband doublet using 450 ohm open wire.

tnx
Dale

--
Email: dalej2@mac.com

2569. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 23:15:39 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <v2tag.72855$F_3.62712@newssvr29.news.prodigy.net>
Source record: 59411

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Give it up, Cecil. You don't even have a coherent notion of the
>> meaning of the term "phase." Selectively quoting, and re-interpreting
>> Bibles in order to make it seem as if the Gods agree with you won't
>> cut it, either. All the simple-minded rural sophistry in the world won't
>> make you right, or the rest of us wrong.
>
>
> When you lose the technical argument, Tom, you always respond
> with ad hominem attacks devoid of any technical content.
>
> Fact is, the phase of the forward traveling current referenced
> to the source current is equal to the distance from the source
> expressed in degrees. The laws of physics will not stand for
> anything else. That same number of degrees *IS* the phase
> angle of the traveling wave(s). Every competent engineer knows
> that as it is obvious from the equations in any good textbook.

I was just giving you some good advice, Cecil. If I wanted to give you
an ad hominem attack I'd just call you a rat and have done with it. No,
make that a dirty rat. But, for a blobberlipped quodlibetarian like
yourself, whose gothamist blatteration attaminates the pure newsgroup
aether with low defoedation of the worst kind, perhaps stronger words
are in order.
73,
Tom Donaly, KA6RUH

2570. Re: "Ocean as antenna"

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 23:17:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <24nk62594btk186se5cq4sv418vchabroi@4ax.com>
Source record: 59412

On Tue, 16 May 2006 18:48:27 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>Just stumbled on this item, indicating that youze guyz might be defficient
>in more areas and I should revise my treatment of some of your previous
>answers.
>
>from Johnson - Jasik, Antenna Engineering Handbook, 2nd Ed., p. 5-21:

The product of Xerox....

>So this idea goes into "to do" pile to be researched or explored.

Hi Yuri,

Just so you get to that first instead of 'splainin' it.

You might visit the library for a copy of R.W.P. King's "Antennas in
Matter," of which I have a copy. You've gotten the short answer from
us, the long answer doesn't change the outcome.

73's
Richard Clark, KB7QHC

2571. Re: "Ocean as antenna"

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 23:37:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <126koiggsaebg3e@corp.supernews.com>
Source record: 59413

Richard Clark wrote:
> On Tue, 16 May 2006 18:48:27 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>> Just stumbled on this item, indicating that youze guyz might be defficient
>> in more areas and I should revise my treatment of some of your previous
>> answers.
>>
>>from Johnson - Jasik, Antenna Engineering Handbook, 2nd Ed., p. 5-21:
>
> The product of Xerox....
>
>> So this idea goes into "to do" pile to be researched or explored.
>
> Hi Yuri,
>
> Just so you get to that first instead of 'splainin' it.
>
> You might visit the library for a copy of R.W.P. King's "Antennas in
> Matter," of which I have a copy. You've gotten the short answer from
> us, the long answer doesn't change the outcome.

NEC-4 is a lot less expensive than it used to be, and it can be used to analyze antennas immersed in water, dirt, or another medium besides air.

As for the complexity of calculating the near field, you can struggle through the math as suggested by Jasik, or you can let EZNEC do it for you and get the answer in seconds. EZNEC makes no simplifying assumptions about the loop size.

Roy Lewallen, W7EL

-Proud to add the title of Yuri "defficient" to my many others. Not quite the level of being a Reg's Old Wife, but a credit nonetheless. Thanks, Yuri!

2572. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 23:40:54 UTC
From: Dan Richardson <>
Message-ID: <ngok625kqheooksqc17siacgk73eo8ranm@4ax.com>
Source record: 59414

On Tue, 16 May 2006 22:55:13 GMT, "dale.j. " <nos.pamz@nospam.com>
wrote:

>What is the correct way to determine the non-resonant feedline length of
>a multiband doublet using 450 ohm open wire.
>
> tnx
>Dale

A multi-band doublet may in itself not be exactly resonate so
transmission line's length resonate length may not be a factor.
Normally - in typical ham style - use the length of line necessary to
make from you antenna to your transmitter (or antenna tuner). If you
encounter difficulties tuning and a few feet to your transmission
line.

Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2573. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 23:46:40 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147823200.514868.28200@j73g2000cwa.googlegroups.com>
Source record: 59415
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,alt.politics.homosexuality,rec.radio.amateur.policy

```
an_old_homo@yahoo.com wrote:
> markie be nimble
>
> markie be quick
>
> markie went down on a fruit nigger's dick!
get help
```

2574. Re: mechanical question, aluminum swaged joints

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-16 23:47:54 UTC
From: Dave <noone@nowhere.com>
Message-ID: <KO-dnQI0UrIw-ffZnZ2dnUVZ_tKdnZ2d@crocker.com>
Source record: 59416

diameter tolerance is what i am looking for. this is an antenna element joint with 2 through bolts in the swaged area, no slitting. measured diameters are 1.252 OD for the inner piece and 1.264-1.277" ID for the swaged section, slightly out of round because of the 2 bolts flattening it a bit. the bolts are vertical and when tightened 'normally' which causes a bit of flattening, the element can move horizontally quite a bit. any recommendations for improvements?? adding horizontal bolts? shims? any portable tools to swage something that big, or is that a machine shop only type of job?

<n3ox.dan@gmail.com> wrote in message
news:1147814992.554303.279380@u72g2000cwu.googlegroups.com...
> Diameter tolerance or out of round? It's probably not too big of a
> deal for most applications especially if you're going to split/slit and
> clamp it.
>
> You're probably better off erring on the side of slight interference if
> you're splitting and clamping and adjustability is not very important.
>
> If you're looking to make a sliding adjustable joint, I'd keep a nice
> tight tolerance, maybe no more than a few thousandths of an inch if you
> can do so. If you can't, it's not a big deal, but a good mechanical
> fit will allow sliding while still giving lots of strength.
>
> If you make the fit loose (>10 thousandths) you're going to be relying
> on your hose clamps or bolts to do all the holding and you're probably
> going to really only get contact under the clamping points, which is OK
> in a lot of applications. A better fit will spread out the clamping
> force more.
>
> 73,
> Dan
> N3OX
>

2575. Re: markie-tard usenet homo

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 00:07:29 UTC
From: jawod <jawod@fuse.net>
Message-ID: <47199$446a696c$453d9423$7236@FUSE.NET>
Source record: 59417
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,alt.politics.homosexuality,rec.radio.amateur.policy

```
an_old_homo@yahoo.com wrote:
> markie be nimble
>
> markie be quick
>
> markie went down on a fruit nigger's dick!
>
go away, loser
```

2576. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 00:13:00 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147824780.125743.61950@u72g2000cwu.googlegroups.com>
Source record: 59418
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,alt.politics.homosexuality,rec.radio.amateur.policy

```
jawod wrote:
> an_old_homo@yahoo.com wrote:
> > markie be nimble
> >
> > markie be quick
> >
> > markie went down on a fruit nigger's dick!
> >
> go away, loser

this is the result btw your actions in spreading hate (along with the
rest of your hate filled gang
```

2577. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 02:19:18 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1147832357.964390.122730@i40g2000cwc.googlegroups.com>
Source record: 59419
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dan/W4NTI wrote:
> "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
> news:38c8.gop.17.1@news.alt.net...

> 4

this is not a golfign NG dan I would expect you topay attention but you
insit on disappointing me
>
> Dan/W4NTI

2578. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 03:27:50 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <WKwag.7639$fb2.5861@newssvr27.news.prodigy.net>
Source record: 59420

w8ji@akorn.net wrote:
> Why not set a good example rather than yelling about Tom D.?

I'm trying, Tom. Why don't you join me?
--
73, Cecil http://www.qsl.net/w5dxp

2579. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 03:33:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9Qwag.7641$fb2.582@newssvr27.news.prodigy.net>
Source record: 59421

Gene Fuller wrote:
> I don't know why you go through all of these gyrations. The phase shown
> by Kraus is durn close to zero.

That's the phase of the standing wave current which W7EL used
to make meaningless measurements.

> Everyone else who has joined in on this
> thread agrees; there is no meaningful phase characteristic for a
> standing wave.

Are you retracting your earlier statement just because its
technical accuracy disagrees with your friend's misconceptions?

Gene Fuller wrote:
> The only "phase" remaining is the cos (kz) term, which is really
> an amplitude description, not a phase.

If you retract your statement then you contradict his other statement
that nothing is lost during superposition. You guys simply cannot
have it both ways. Why not stick with technical accuracy?
--
73, Cecil http://www.qsl.net/w5dxp

2580. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 03:35:23 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <%Rwag.7642$fb2.3553@newssvr27.news.prodigy.net>
Source record: 59422

Roy Lewallen wrote:

>> Cecil Moore wrote:
>>> When you lose the technical argument, Tom, you always respond
>>> with ad hominem attacks devoid of any technical content.
>
> Chuckle. A perfect example of an ad hominem attack devoid of any
> technical content.

Chuckle. The truth is not an ad hominem attack. Incidentally, Tom
didn't lose the argument to me - he lost it to Balanis.
--
73, Cecil http://www.qsl.net/w5dxp

2581. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 03:39:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9Wwag.7644$fb2.7484@newssvr27.news.prodigy.net>
Source record: 59423

Tom Donaly wrote:
> I was just giving you some good advice, Cecil. If I wanted to give you
> an ad hominem attack I'd just call you a rat and have done with it. No,
> make that a dirty rat. But, for a blobberlipped quodlibetarian like
> yourself, whose gothamist blatteration attaminates the pure newsgroup
> aether with low defoedation of the worst kind, perhaps stronger words
> are in order.

The technical content of your posting is, once again,
conspicuous by its absence. How about a reference for
the standing wave current not being a sinusoid?
--
73, Cecil http://www.qsl.net/w5dxp

2582. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 03:45:45 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <K%wag.18910$QP4.13360@fed1read12>
Source record: 59424

"John Ferrell" <johnferrell@sprintmail.com> wrote in message
news:fphj6254od9gk94p04kifi3pn5591s06kc@4ax.com...
> Thanks to all, I will use F's in my experimenting. I will probably
> need to fabricate an adapter for a UHF to F for the rig output but
> that is not a big deal.

F-to-BNC are made -- I have a few -- and everybody has BNC-to-UHF, so there
you are.

2583. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 04:32:59 UTC
From: Buck <not@this.time>
Message-ID: <sn9l62lfmfldeev0n09gfis38tkv6auf6o@4ax.com>
Source record: 59425

>> Felix HB9ABX
>>
>>
>
>Small mobile antennas (in terms of wavelength) aren't generally very
>efficient. The above test only shows you can make contacts. It
>doesn't address efficiency or field strength in relation to
>a similar, but larger antenna. Have you put the plans online
>for this thing, or are you just using them to augment your
>net worth?
>73,
>Tom Donaly, KA6RUH

He is definitely holding them hostage to his profit. You will note
that he has not responded to the fact that he requires the buyer to
abide by his agreement BEFORE he will show them the agreement.

--
73 for now
Buck
N4PGW

2584. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 04:37:20 UTC
From: Buck <not@this.time>
Message-ID: <qr9l629cbq06vgld8kv2t5lt9ef909doqg@4ax.com>
Source record: 59326

On Tue, 16 May 2006 14:30:52 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Buck wrote:
>
>> Cecil Moore <mycall@hotmail.com> wrote:
>>
>>>Buck wrote:
>>>>Ok, I learned something, but I would be inclined to go with the 1/2
>>>>wave of 75 ohm and then the 50 ohm ;)
>>>
>>>"1/2 wave of 75 ohm" would make matters worse for a 25 ohm
>>>antenna since the SWR would be higher than for 50 ohms.
>>>What you need is 1/4WL of 35 ohm coax like RG83.
>>
>> OOPS, I went back to the original problem with 100 ohm
>
>Then you should use 1/4 wave of 75 ohm, not 1/2 wave.
ok, a 100 ohm load fed with 50 ohm coax is a 2:1 swr. Fed with 75 ohm
coax, it is 1.33:1 ??

If the 75 ohm is fed with 50 ohm coax 1/4 wave down the 75 ohm coax,
it will be a close match?

Why did the impedance change to 52 ohms?
--
73 for now
Buck
N4PGW

2585. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 05:01:12 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <VKSdnTVNI47tMffZRVn-tw@adelphia.com>
Source record: 59327

Buck wrote:

> ok, a 100 ohm load fed with 50 ohm coax is a 2:1 swr. Fed with 75 ohm
> coax, it is 1.33:1 ??
>
> If the 75 ohm is fed with 50 ohm coax 1/4 wave down the 75 ohm coax,
> it will be a close match?
>
> Why did the impedance change to 52 ohms?

Because of the energy bouncing back and forth between the 100 ohm load (that mismatches the 75 ohm, so causes a reflection) and the 50 ohm feed (that mismatches the 75 ohm section, so causes a reflection).

If the 1/4 wave section has an impedance that is the geometric mean of the impedance on each end, it creates a perfect matching resonator.

So the perfect 1/4 wave matching section between 50 and 100 ohms would have an impedance of the square root of (50 times 100) or 70.7 ohms. 75 is pretty close.

2586. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 06:32:14 UTC
From: Felix <Felix.27y310@news.radiobanter.com>
Message-ID: <Felix.27y310@news.radiobanter.com>
Source record: 59331

n3ox.dan@gmail.com Wrote:
> Ah, the "it works because I made contacts with the following DX"
> antenna argument.
>
> This may be an extremely compelling way of measuring performance of an
> antenna system if done correctly.
>
> It's certainly the most compelling kind of marketing argument snagging
> prospective "magic antenna" buyers, especially those who don't have
> another antenna up for comparison. But is there a way to make such an
> anecdotal claim and have it mean something?
>
> I'm thinking something along the lines of probability of making
> contact
> with a station with identical equipment, averaged over a very very
> long
> time.
>
> If you know the statistical ionospheric loss for the path, the power
> levels involved, and antenna gain (or LOSS) you can calculate such a
> thing.
>
> I've heard an argument recently that a particular antenna system must
> not be too inefficient because it was able to produce contacts with
> stations in Australia and New Zealand. The data below are in the same
> category.
>
> How do you know that the RoomCap antenna contacts were not made
> because
> the stations on the OTHER END have much MUCH better antennas?
>
> The dynamic range of signals present on the amateur bands is enormous.
> You could have an antenna with a gain of -35dBi and still make regular
> contacts. That doesn't mean it's good. How about if we stick to dB
> gain relative to some simple reference antenna or the isotropic for
> antenna reporting?
>
> ...
>
> [color=green]
>
>

Dear friends,

I am very well aware of what you mean.
Read my part "Evaluation of HF Antennas" on my homepage
and then, the many comparisons of the RoomCap with
many other, well known antennes, which were made
side on side, also found on my page.

I think, the real comparitive results is the only one that counts
for an antenna.

With best 73s

Felix HB9ABX

--
Felix

2587. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 06:43:31 UTC
From: jawod <jawod69@yahoo.com>
Message-ID: <1147848211.389893.177120@u72g2000cwu.googlegroups.com>
Source record: 59328
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,alt.politics.homosexuality,rec.radio.amateur.policy

```
MARK .... LAY ON YOUR BACK AND GRAB YOUR COCK........I WILL SLIP MY
LOVE STICK INTO YOUR MAN HOLE.
an_old_friend wrote:
> jawod wrote:
> > an_old_homo@yahoo.com wrote:
> > > markie be nimble
> > >
> > > markie be quick
> > >
> > > markie went down on a fruit nigger's dick!
> > >
> > go away, loser
>
> this is the result btw your actions in spreading hate (along with the
> rest of your hate filled gang
```

2588. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 06:48:04 UTC
From: nm5k@wt.net
Message-ID: <1147848484.765798.306050@j55g2000cwa.googlegroups.com>
Source record: 59329

> I suspect
>that no two people here on r.r.a.a are in 100% agreement
>on everything.

Surely you jest... :) Fight! Fight! Fight! Kinda reminds me of
Beevis and Butthead after eating too much chocolate..
K7ITM pretty much boiled it down to the raw minerals by
noting that the usual "shielded loops" only advantage is the oft
improved balance. I've already been through all this mess testing
them here...
And I've proven to myself that an open wire loop can be just as
good as a "shielded loop" just as long as balance is taken care
of. It's the balance that matters. If the two types are equally
balanced,
and the same size, they will act the same.
The rest is just fodder for bored old farts on a newsgroup.
Of course, many won't agree with me, and this would include Yuri,
since he believes a shielded loop is quieter than an open loop.
But I don't care.
It's a free country. Or I think it is... Sometimes I wonder these days

with all these goofballs we have in DC running the show.
MK

2589. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 08:37:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <UcqdncW3XtsRfPfZRVnygQ@bt.com>
Source record: 59330

With a multi-band, center-fed, doublet, forget all about resonant frequencies of both antenna and line and take the 450-ohm line (or preferably 600-ohm) from the antenna all the way to the shack with a little bit extra.

You will need a choke balun and tuner at the shack end. And you will never have a more efficient arrangement.

Reg.

2590. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 11:05:31 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1147863931.841516.33720@g10g2000cwb.googlegroups.com>
Source record: 59332
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,alt.politics.homosexuality,rec.radio.amateur.policy

jawod wrote:
> MARK .... LAY ON YOUR BACK AND GRAB YOUR COCK........I WILL SLIP MY
> LOVE STICK INTO YOUR MAN HOLE.
no you will not
get help for your delsuions

2591. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 12:06:34 UTC
From: whinyslit_lloydie@yahoo.com
Message-ID: <1147867594.354964.93580@j33g2000cwa.googlegroups.com>
Source record: 59333
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
assraped by an_old_friend wrote:
> Not Lloyd II wrote:
> > "an_old_friend" <konstans@hotmail.com> wrote in message
> > news:1147586170.894157.292250@d71g2000cwd.googlegroups.com...
> >
>
> > > I have a request OM. Could you please proof-read your posts before you
> > > hit the send button? Tnx in advance.
> >
> > no you can't have it takes too much time this has been explained over
> > and over agin
> >
> > you don't like it don't read my stuff is one of your options
> > >
> > >
> > > 73
> >
> > after all you dicided to use something i find insulting right therefor
> > it cw related meaning
> > >
> > Using a spell check program takes but a few seconds.
> using a spell checker is imposib;le under google

Wrong again, Markie. It's only impossible to a fucking imbecile like
you.

> >You refuse to do so,
> > and we must thereby assume that, 1. You are lazy.
> one is the closest

Mark admits he's lazy, that's why he's unemployed and on welfare, too !

> > 2. You are far too dense
> > to know how to use one. 3. Your head is so firmly emplanted in your rectal
> > cavity that you cannot remove it. 4. All of the above.
>
> but i think you are enaged in self discrition again
> you clearly have your head up your ass

Hey Markie, try not to spew back the same argument to what was said
about you, dumbass!
```

2592. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 12:07:46 UTC
From: whinyslit_lloydie@yahoo.com
Message-ID: <1147867665.973689.188120@j73g2000cwa.googlegroups.com>
Source record: 59334
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
sodomized by an_old_friend wrote:
> Dan/W4NTI wrote:
> > "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
> > news:38c8.gop.17.1@news.alt.net...
>
> > 4
>
> this is not a golfign NG dan I would expect you topay attention but you
> insit on disappointing me

Sort of like how you were/are a dissapointment to your parents, Markie
the Moron.
```

2593. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 12:13:57 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9sEag.7861$fb2.6678@newssvr27.news.prodigy.net>
Source record: 59335

Buck wrote:
> ok, a 100 ohm load fed with 50 ohm coax is a 2:1 swr. Fed with 75 ohm
> coax, it is 1.33:1 ??

Yes, and 75/1.33 = 56.25 ohms. For a perfect match to 50
ohms, one would need Z0 = SQRT(100*50) = 70.7 ohms.

> If the 75 ohm is fed with 50 ohm coax 1/4 wave down the 75 ohm coax,
> it will be a close match?

The SWR on the 50 ohm coax will be 56.25/50 = 1.125:1

> Why did the impedance change to 52 ohms?

It didn't. It changed to 56.25 ohms. The load is 100 ohms
and the Z0 is 75 ohms so the SWR is 1.33:1 at the current
minimum/voltage maximum point. To find the impedance 1/4WL
away, divide Z0 by SWR, 75/1.33 = 56.25 ohms.
--
73, Cecil http://www.qsl.net/w5dxp

2594. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 12:19:17 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9xEag.7863$fb2.50@newssvr27.news.prodigy.net>
Source record: 59336

Reg Edwards wrote:
> With a multi-band, center-fed, doublet, forget all about resonant
> frequencies of both antenna and line and take the 450-ohm line (or
> preferably 600-ohm) from the antenna all the way to the shack with a
> little bit extra.

I think what the original poster is trying to avoid is a
voltage maximum, current minimum point at the transmitter.
For instance, that 25 ohm antenna fed with 600 ohm open-
wire line would present an impedance of 15K ohms at the
transmitter when the feedline is an odd multiple of 1/4
WL long.
--
73, Cecil http://www.qsl.net/w5dxp

2595. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 12:26:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <iEEag.7867$fb2.4198@newssvr27.news.prodigy.net>
Source record: 59337

dale.j. wrote:
> What is the correct way to determine the non-resonant feedline length of
> a multiband doublet using 450 ohm open wire.

Assuming that you are trying to avoid feeding the antenna
system at a current minimum point, the free demo version
of EZNEC will do that for you.

There's a DOS program on my web page at:

http://www.qsl.net/w5dxp/imax.exe

that will give the approximate feedline length for
feeding the antenna system at a current maximum
point.
--
73, Cecil http://www.qsl.net/w5dxp

2596. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 12:32:51 UTC
From: an Old friend <kb9rqz@amsat.org>
Message-ID: <1147869171.206624.185300@u72g2000cwu.googlegroups.com>
Source record: 59338
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

whinyslit_lloydie@yahoo.com wrote:
> sodomized by an_old_friend wrote:
> > Dan/W4NTI wrote:
> > > "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
> > > news:38c8.gop.17.1@news.alt.net...
> >
> > > 4
> >
> > this is not a golfign NG dan I would expect you topay attention but you
> > insit on disappointing me
>
> Sort of like how you were/are a dissapointment to your parents, Markie
> the Moron.
no I am not my father is proud of me proud of the fact for example I
don't let people like and steve bully me into silence

get help

2597. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 12:39:13 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <qpWdnQfJU-Kih_bZRVnygQ@bt.com>
Source record: 59340

"Cecil Moore" wrote
> Reg Edwards wrote:
> > With a multi-band, center-fed, doublet, forget all about resonant
> > frequencies of both antenna and line and take the 450-ohm line (or
> > preferably 600-ohm) from the antenna all the way to the shack with
a
> > little bit extra.
>
> I think what the original poster is trying to avoid is a
> voltage maximum, current minimum point at the transmitter.
> For instance, that 25 ohm antenna fed with 600 ohm open-
> wire line would present an impedance of 15K ohms at the
> transmitter when the feedline is an odd multiple of 1/4
> WL long.
==========
But that might occur at only one frequency in the range 1.8 to 30 MHz
and the probability of it falling in an amateur band is remote.

If it should fall into an amateur band and its on his favourite
frequency then all he has to do is change the feeder length by a few
feet.

Statistically he can't lose.

Reg.

2598. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 12:41:37 UTC
From: marky_morgan_internet_retard@yahoo.com
Message-ID: <1147869697.612185.23560@j55g2000cwa.googlegroups.com>
Source record: 59339
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
assfucked by an Old friend wrote:
> whinyslit_lloydie@yahoo.com wrote:
> > sodomized by an_old_friend wrote:
> > > Dan/W4NTI wrote:
> > > > "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
> > > > news:38c8.gop.17.1@news.alt.net...
> > >
> > > > 4
> > >
> > > this is not a golfign NG dan I would expect you topay attention but you
> > > insit on disappointing me
> >
> > Sort of like how you were/are a dissapointment to your parents, Markie
> > the Moron.
> no I am not my father is proud of me proud of the fact for example I

You suck more cocks then he does, huh, faggot?
```

2599. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 12:50:51 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-47C40C.07503117052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59341

In article <9xEag.7863$fb2.50@newssvr27.news.prodigy.net>,
Cecil Moore <mycall@hotmail.com> wrote:

> Reg Edwards wrote:
> > With a multi-band, center-fed, doublet, forget all about resonant
> > frequencies of both antenna and line and take the 450-ohm line (or
> > preferably 600-ohm) from the antenna all the way to the shack with a
> > little bit extra.
>
> I think what the original poster is trying to avoid is a
> voltage maximum, current minimum point at the transmitter.
> For instance, that 25 ohm antenna fed with 600 ohm open-
> wire line would present an impedance of 15K ohms at the
> transmitter when the feedline is an odd multiple of 1/4
> WL long.

So I would cut my feedline to an odd multiple of a quarter wavelength of
the lowest band I intend to use?

In my old 1960 ARRL antenna handbook (Ninth edition) they tell me to add
one half of the dipole plus the length of the feedline then go to a
chart, figure 3-50 p. 107, which shows various lengths that would be ok.

This stuff gets confusing when there are so many different ways that it
is explained.

--
Email: dalej2@mac.com

2600. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 12:51:08 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <kNidnYYifNWjgfbZnZ2dnUVZ_s-dnZ2d@comcast.com>
Source record: 59342
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

<X-Post canceled>

<marky_morgan_internet_retard@yahoo.com> wrote in message
news:1147869697.612185.23560@j55g2000cwa.googlegroups.com...
>
> assfucked by an Old friend wrote:
>> whinyslit_lloydie@yahoo.com wrote:
>> > sodomized by an_old_friend wrote:
>> > > Dan/W4NTI wrote:
>> > > > "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
>> > > > news:38c8.gop.17.1@news.alt.net...
>> > > >
>> > > > > 4
>> > > >
>> > > this is not a golfign NG dan I would expect you topay attention but
>> > > you
>> > > insit on disappointing me
>> > >
>> > Sort of like how you were/are a dissapointment to your parents, Markie
>> > the Moron.
>> no I am not my father is proud of me proud of the fact for example I
>
> You suck more cocks then he does, huh, faggot?
>

Welcome to my killfile

PLONK

2601. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 12:53:49 UTC
From: an old freind <kb9rqz_ars@yahoo.com>
Message-ID: <1147870429.601569.61090@38g2000cwa.googlegroups.com>
Source record: 59343
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Noon-Air wrote:
> <X-Post canceled>
>
> <marky_morgan_internet_retard@yahoo.com> wrote in message
> news:1147869697.612185.23560@j55g2000cwa.googlegroups.com...
> >
> > assfucked by an Old friend wrote:
> >> whinyslit_lloydie@yahoo.com wrote:
> >> > sodomized by an_old_friend wrote:
> >> > > Dan/W4NTI wrote:
> >> > > > "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
> >> > > > news:38c8.gop.17.1@news.alt.net...
> >> > >
> >> > > > 4
> >> > >
> >> > > this is not a golfign NG dan I would expect you topay attention but
> >> > > you
> >> > > insit on disappointing me
> >> >
> >> > Sort of like how you were/are a dissapointment to your parents, Markie
> >> > the Moron.
> >> no I am not my father is proud of me proud of the fact for example I
> >
> > You suck more cocks then he does, huh, faggot?
> >
>
> Welcome to my killfile
>

be preapred to do that a lot
> *PLONK*
```

2602. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 13:03:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <3bFag.7873$fb2.1126@newssvr27.news.prodigy.net>
Source record: 59344

Reg Edwards wrote:
> Statistically he can't lose.

How about Murphy's Law? :-)
--
73, Cecil http://www.qsl.net/w5dxp

2603. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 13:04:36 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <J6mdnTd74tP5gvbZRVn-gw@adelphia.com>
Source record: 59345

Cecil Moore wrote:

> I suspect
> that no two people here on r.r.a.a are in 100% agreement
> on everything.

I disagree! heh ;^)

- 73 de Mike KB3EIA -

2604. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 13:05:08 UTC
From: Dan Richardson <>
Message-ID: <ca7m625am8otkhte9l3f0tiq4c6jci74l9@4ax.com>
Source record: 59346

On Wed, 17 May 2006 12:50:51 GMT, "dale.j. " <nos.pamz@nospam.com>
wrote:

>So I would cut my feedline to an odd multiple of a quarter wavelength of
>the lowest band I intend to use?
>
>In my old 1960 ARRL antenna handbook (Ninth edition) they tell me to add
>one half of the dipole plus the length of the feedline then go to a
>chart, figure 3-50 p. 107, which shows various lengths that would be ok.
>
>This stuff gets confusing when there are so many different ways that it
>is explained.

The information in the arrl antenna handbook you are quoting above is
for center feeding resonate (or near resonate) 1/2-wave dipole with
coax transmission line.

You are describing a multi-band doublet. That antenna is seldom
resonate on all bands (if any) and you are using open ladder
transmission line to feed it. Resonance is not an issue in this case.

Just put up the anenna, feed it with enough transmission line to make
to you shack. Should you encounter a problem matching with you tuner
then just add a few feet to the transmission line and be done with it.

Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2605. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 13:14:52 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <glFag.7875$fb2.2150@newssvr27.news.prodigy.net>
Source record: 59347

dale.j. wrote:
> So I would cut my feedline to an odd multiple of a quarter wavelength of
> the lowest band I intend to use?

No, your antenna is probably not 25 ohms as in the example.

> In my old 1960 ARRL antenna handbook (Ninth edition) they tell me to add
> one half of the dipole plus the length of the feedline then go to a
> chart, figure 3-50 p. 107, which shows various lengths that would be ok.

There's a DOS program on my web page which will give the
approximate lengths for optimum feedline lengths:

http://www.qsl.net/w5dxp/imax.exe

For instance, that program says 58 feet and 89 feet are
good lengths for feeding a 102 foot dipole on 14.2 MHz
with 450 ohm ladder-line. Halfway between those two lengths,
i.e. anything around 74 feet, should be avoided for 20m.

More information on feedline length for a 130 foot dipole
is at http://www.qsl.net/w5dxp/notuner.htm

The free demo version of EZNEC will also yield this kind
of information.
--
73, Cecil http://www.qsl.net/w5dxp

2606. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 13:16:00 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <FJCdnXEsfsmMv_bZRVn-tw@adelphia.com>
Source record: 59348

Roy Lewallen wrote:

> If you'll read what Tom has posted, or a description in any good text,
> you'll find that the whole circumference of a "shielded" loop radiates.
> The field comes from current on the outside of the "shield", not from
> some field penetrating the shield. That's my theory. It's the same as
> Tom's, and that of every respected author I've read.

Game, Set, and Match, Roy. The explanation and the everyday application of the concept of non-ferrous shielding are both simple and elegant.

Seems like the thread stopper to me! I suspect it will continue anyhow.... 8^)

- 73 de Mike KB3EIA -

2607. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 13:20:54 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <R8KdnUaoZb2qvvbZnZ2dnUVZ_sednZ2d@adelphia.com>
Source record: 59349

Reg Edwards wrote:
> "Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
> news:VEmag.22577$4H.10017@dukeread03...
>
>>Lets assume a single hop 40m signal from 400 miles away. What
>>elevation angle does it arrive at? Both stations are using inverted
>
> V's
>
>>at nominal height. There are no large bodies of water in between.
>>
>>Daytime and/or nighttime.
>>
>>--
>> 73's de Ken KG0WX
>
> ==========
>
> The type of antenna or its radiation pattern has nothing whatever to
> do with the path taken by the radio wave through the ionosphere. The
> take-off angle and its name, generated by EZNEC, can be very
> misleading.

It is hard to look at a radiation pattern, conclude that the take-off angle is the only angle of radiation, and then blame it on EZNEC! Most of the antennas that I have modeled seem to have radiation in lots of directions. 8^) Otherwise you are correct.

> The radio path is simply a matter of trigonometry involving only the
> groundpath distance between transmitter and receiver and the height of
> the reflecting layer.
>
> The height of the reflecting layer changes between day and night. And
> there may be more than one layer present in daylight. The layer
> actually used depends on frequency.
>
> If the Tx and Rx stations are far apart, the trigonometry becomes a
> little bit complicated because of the curvature of the Earth's
> surface. But for groundpath distances up to 500 miles a flat earth can
> be assumed. Get a sheet of paper and a pencil and sketch the triangle
> to be solved. The average height of the F-Layer in darkness is about
> 200 miles. In daylight it is about 300 miles.
>
> To do the actual calculations download program SKYTRIG from website
> below in a few seconds and run immediately. SKYTRIG is near the bottom

> of the list on the "Download Progs From Here" page. Just left-click
> on it.
>

- 73 de Mike KB3EIA -

2608. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 13:26:40 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kwFag.7880$fb2.6043@newssvr27.news.prodigy.net>
Source record: 59350

Mike Coslo wrote:
> The explanation and the everyday
> application of the concept of non-ferrous shielding are both simple and
> elegant.

I'm fairly ignorant when it comes to shielding. Do the
magnetic fields from a magnet penetrate copper? Do the
magnetic fields from 60 Hz devices penetrate the shield
on coax?
--
73, Cecil http://www.qsl.net/w5dxp

2609. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 13:30:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <XzFag.7883$fb2.4884@newssvr27.news.prodigy.net>
Source record: 59351

Mike Coslo wrote:
> It is hard to look at a radiation pattern, conclude that the
> take-off angle is the only angle of radiation, and then blame it on
> EZNEC!

I knew a ham in Chandler, AZ who would adjust not only
the direction but the height of his beam for maximum signal.
I assume by adjusting the height, he was changing his TOA.
--
73, Cecil http://www.qsl.net/w5dxp

2610. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 13:40:54 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <L5GdnX0_6LwrtfbZRVnyuA@bt.com>
Source record: 59352

> If it should fall into an amateur band and its on his favourite
> frequency then all he has to do is change the feeder length by a
>few feet.
==========

On the other hand, it may be easier just to change the length of the
doublet.

Reg.

2611. Re: mechanical question, aluminum swaged joints

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 13:55:51 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <HXFag.69470$Fs1.8506@bgtnsc05-news.ops.worldnet.att.net>
Source record: 59353

Dave wrote:
> diameter tolerance is what i am looking for. this is an antenna element
> joint with 2 through bolts in the swaged area, no slitting. measured
> diameters are 1.252 OD for the inner piece and 1.264-1.277" ID for the
> swaged section, slightly out of round because of the 2 bolts flattening it a
> bit. the bolts are vertical and when tightened 'normally' which causes a
> bit of flattening, the element can move horizontally quite a bit. any
> recommendations for improvements?? adding horizontal bolts? shims? any
> portable tools to swage something that big, or is that a machine shop only
> type of job?

Dave,

The easiest fix would be to add one or two more bolts in the horizontal direction. The resulting shape of the outer element would be slightly squared, but that should not cause any problems. Thin shims would be a nuisance.

There are portable tools used for swaging. In particular, people who make boilers for model steam locomotives often use a swaging process to fit the boiler tubes tightly into the end plates. The key for any sort of portable or hand-held swaging is that it is much easier to expand the smaller tube than to shrink the larger tube. The metal needs to be soft, however, and useful aluminum antenna elements would generally be a bit hard. Since you need only a few mils, it might work.

73,
Gene
W4SZ

2612. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 14:00:39 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <b0Gag.69481$Fs1.12520@bgtnsc05-news.ops.worldnet.att.net>
Source record: 59354

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I don't know why you go through all of these gyrations. The phase
>> shown by Kraus is durn close to zero.
>
>
> That's the phase of the standing wave current which W7EL used
> to make meaningless measurements.
>
>> Everyone else who has joined in on this thread agrees; there is no
>> meaningful phase characteristic for a standing wave.
>
>
> Are you retracting your earlier statement just because its
> technical accuracy disagrees with your friend's misconceptions?
>
> Gene Fuller wrote:
> > The only "phase" remaining is the cos (kz) term, which is really
> > an amplitude description, not a phase.
>
> If you retract your statement then you contradict his other statement
> that nothing is lost during superposition. You guys simply cannot
> have it both ways. Why not stick with technical accuracy?

Cecil,

I am really puzzled. I cannot see even one inconsistency in my
statements, including those you quote.

What is the problem?

What is there to "retract"?

73,
Gene
W4SZ

2613. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 14:03:22 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <K2Gag.7891$fb2.4581@newssvr27.news.prodigy.net>
Source record: 59355

Roy Lewallen wrote:
> As I pointed out some time ago, the envelope of a standing wave isn't in
> general sinusoidally shaped.

Assuming the source signal is sinusoidal, your above assertion
would require non-linearity in the antenna. Since antennas are
generally considered to be linear systems, would you please
explain where the nonlinearity is coming from?
--
73, Cecil http://www.qsl.net/w5dxp

2614. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 14:13:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0cGag.7892$fb2.3590@newssvr27.news.prodigy.net>
Source record: 59356

Gene Fuller wrote:
> I am really puzzled. I cannot see even one inconsistency in my
> statements, including those you quote.
>
> What is the problem?

You said there is phase remaining in the cos(kz) term which
is contained in the amplitude.

Then you said there is no phase information.

Those statements contradict each other.

In any case, the graph at

http://www.qsl.net/w5dxp/travstnd.GIF

proves that there is phase information contained in the
standing wave current magnitude. The arc-cosine of the
standing wave current magnitude is identical to the phase
of the traveling wave referenced to the source current.

Please note that the "experts" have been strangely silent
on the contents of that graph.
--
73, Cecil http://www.qsl.net/w5dxp

2615. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 14:34:50 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ewGag.72855$_S7.38580@newssvr14.news.prodigy.com>
Source record: 59357

Cecil Moore wrote:
> Roy Lewallen wrote:
>> As I pointed out some time ago, the envelope of a standing wave isn't
>> in general sinusoidally shaped.
>
> Assuming the source signal is sinusoidal, your above assertion
> would require non-linearity in the antenna. Since antennas are
> generally considered to be linear systems, would you please
> explain where the nonlinearity is coming from?

Additional thought: Assuming the source signal is a pure sine
wave, if the standing wave current "isn't in general sinusoidally
shaped", then the antenna would have to be introducing harmonic
radiation that doesn't exist in the source signal. That fact is
easily proved with a Fourier analysis.

I wasn't aware that standing wave antennas cause radiation on
harmonic frequencies. Any standing wave current waveform that
deviates very far from a sinusoid would be illegal.
--
73, Cecil http://www.qsl.net/w5dxp

2616. Models on a Hot Tin Roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 15:29:59 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1147879799.152342.250200@38g2000cwa.googlegroups.com>
Source record: 59358

OK, so it's aluminum, and I'm talking about antenna models, and, well, I could make the claim that the roof is "hot" with RF because of induced currents... but... the question:

I've got a mast that can get my VHF/UHF antennas up above the roof of my apartment building about four feet, above ground about 28 feet. My balcony has a ceiling made of aluminum, so I've got this big metal sheet (about 16 feet x 8 feet) close by under the antennas. I want to use EZNEC to model the effect of the whole system, antenna above ground and at the corner of this big aluminum sheet.

I figure a grid is OK if the mesh is fairly fine (what, maybe .1 wavelength?) but the problem is that I'm going to run out of segments. Even if I upgrade to EZNEC+ and get 1000 more segments, I may not have enough to do a 16 foot by 8 foot mesh. I've tried a close spaced set of parallel wires and ignored the segmentation warnings and I see some reasonably sensible pattern distortion, but I wonder if anyone could point me to some tricks to make a relatively coarse grid of wires seem like a plane. Will fat wires help?

73,
Dan
N3OX

2617. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 15:30:55 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <YkHag.358$ZI1.179@fe11.lga>
Source record: 59359

<nm5k@wt.net> wrote in message
news:1147848484.765798.306050@j55g2000cwa.googlegroups.com...

> And I've proven to myself that an open wire loop can be just as
> good as a "shielded loop" just as long as balance is taken care
> of. It's the balance that matters. If the two types are equally
> balanced, and the same size, they will act the same.

Sooo, in shielded loop the shield is the antenna according to W8JI and worshippers. But you take the shield (W8JI antenna) away, now the wires are antenna, some say don't need no stinkin' shield and "antenna" to work as an antenna.

> The rest is just fodder for bored old farts on a newsgroup.
> Of course, many won't agree with me, and this would include Yuri,
> since he believes a shielded loop is quieter than an open loop.
> But I don't care.

Amazing how selective in reading and digestion of postings some people are. They tend to ignore the reality and description of it, they pick on selective "proof" of what they were taught and figered out.
I emphasize, that electrostatic shield on the loop antenna is effective on close proximity radiation, within some fractions of a wavelength from the source of interference/signal. It does not (significantly) affect band noise or distant noise/signals. Anyone who can build shielded loop and test it within local arcing source or test transmitter, can see the attenuation of the said noise.
So shield works as a electrostatic shield, if you guys like it or not, or refuse to admit.
It is not that I believe in that, I have experienced it, seen it, measured it and it works, it is there and anoyne can verify that, contrary to "theories" of those who "figured" it can't be.
Electrostatic shields work on principle of capacitance plate, being grounded and side exposed to electrical/electrostatic fields shunting the field to ground. Capacitor's one "plate" is the interference/signal source (antenna) - other "plate" is the el. static loop shield, grounded, shunting electrical fields to ground and preventing from entering the antenna. (Something like that).

Sooo, antenna works without shield (not just my assertion), but when you insert it in the shield then shield becomes W8JI antenna. So his shield, untuned becomes antenna, but my tuned and tunable inside the shield antenna is not the antenna? Makes as much sense as "there is equal current along the loading coil doesn't matter what", riiiiight?

> It's a free country. Or I think it is... Sometimes I wonder these days
> with all these goofballs we have in DC running the show.
> MK
>

We were better off with Clintonistas having orgies in WH while Bin Ladin turbanites were running around, blowing up Americans and using our flight schools, our planes to demonstrate their "religion of peace" in NYC WTC inferno?

Let's stick to some reality in antennas.

Yuri, K3BU

2618. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 15:36:20 UTC
From: N0VFP <lloyd_n0vfp@yahoo.com>
Message-ID: <1147880180.587485.304520@j55g2000cwa.googlegroups.com>
Source record: 59360
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
assraped by an old freind wrote:
> Noon-Air wrote:
> > <X-Post canceled>
> >
> > <marky_morgan_internet_retard@yahoo.com> wrote in message
> > news:1147869697.612185.23560@j55g2000cwa.googlegroups.com...
> > >
> > > assfucked by an Old friend wrote:
> > >> whinyslit_lloydie@yahoo.com wrote:
> > >> > sodomized by an_old_friend wrote:
> > >> > > Dan/W4NTI wrote:
> > >> > > > "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
> > >> > > > news:38c8.gop.17.1@news.alt.net...
> > >> > >
> > >> > > > 4
> > >> > >
> > >> > > this is not a golfign NG dan I would expect you topay attention but
> > >> > > you
> > >> > > insit on disappointing me
> > >> >
> > >> > Sort of like how you were/are a dissapointment to your parents, Markie
> > >> > the Moron.
> > >> no I am not my father is proud of me proud of the fact for example I
> > >
> > > You suck more cocks then he does, huh, faggot?
> > >
> >
> > Welcome to my killfile

SPANK!

> be preapred to do that a lot
Yeah, Markie is going to spam some more!
```

2619. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 15:40:29 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <XtHag.359$Zl1.209@fe11.lga>
Source record: 59361

>> Reg wrote:
>> The type of antenna or its radiation pattern has nothing whatever to
>> do with the path taken by the radio wave through the ionosphere. The
>> take-off angle and its name, generated by EZNEC, can be very
>> misleading.
>

It has to do. It allows us to direct the RF under desired angle to hit the layer or region that supports the propagation to the chosen target.
I have seen situations when signals to Europe were coming under low angle and in the same direction, signals to deep Asia were coming under higher angle at the same time.

There are different propagation modes and paths and be able to control radiation pattern of antenna is important (for serious hams, like contesters). I am not talking about skewed path, long path and other modes of propagation when horizontal and vertical control of the antenna radiation pattern is of huge benefit.

So making blank statements like above is not proper.

73 Yuri K3BU

2620. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 15:46:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nggm62t1oj5bqickhi7io3q9110s0fvtgl@4ax.com>
Source record: 59362

On Wed, 17 May 2006 11:30:55 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>Electrostatic shields work on principle of capacitance plate, being grounded
>and side exposed to electrical/electrostatic fields

There's a very simple test of this "shield." It relates to experience
and doesn't need for you to go to the library.

1.) Tack a wire across the gap.

Q. Do you still have signal?

A. No!? None????

Extra Credit Question:
Did the wire make the "shield" better, or worse?

73's
Richard Clark, KB7QHC

p.s.
from your experience, the answer to the initial question above may
vary. If in fact it does, it may bring new material for discussion.

2621. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 15:51:10 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <XDHag.360$ZI1.183@fe11.lga>
Source record: 59363

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:FJCdnXEsfsmMv_bZRVn-tw@adelphia.com...
> Roy Lewallen wrote:
>
>> If you'll read what Tom has posted, or a description in any good text,
>> you'll find that the whole circumference of a "shielded" loop radiates.
>> The field comes from current on the outside of the "shield", not from
>> some field penetrating the shield. That's my theory. It's the same as
>> Tom's, and that of every respected author I've read.
>
> Game, Set, and Match, Roy. The explanation and the everyday application of
> the concept of non-ferrous shielding are both simple and elegant.
>
> Seems like the thread stopper to me! I suspect it will continue anyhow....
> 8^)
>
> - 73 de Mike KB3EIA -

Before you pronounce your verdict, why don't youze guyze build the shielded loop antenna as I described and test it. Try version without shield, see what IS antenna, and try the same antenna with shielded loop. Then run electric drill or another source of arcing or interference in the vicinity and see if there is shielding effect or not. Then pronounce your verdict and pontificate on how electrostatic shields suppose to work. Otherwise you look silly like W8JI cult worshippers.

73 Yuri, K3BU

2622. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 15:53:05 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <Rs-dnVWbaqB-2_bZnZ2dnUVZ_sKdnZ2d@comcast.com>
Source record: 59364
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"N0VFP" <lloyd_n0vfp@yahoo.com> wrote in message
news:1147880180.587485.304520@j55g2000cwa.googlegroups.com...
>
> assraped by an old freind wrote:
>> Noon-Air wrote:
>> > <X-Post canceled>
>> >
>> > <marky_morgan_internet_retard@yahoo.com> wrote in message
>> > news:1147869697.612185.23560@j55g2000cwa.googlegroups.com...
>> > >
>> > > assfucked by an Old friend wrote:
>> > >> whinyslit_lloydie@yahoo.com wrote:
>> > >> > sodomized by an_old_friend wrote:
>> > >> > > Dan/W4NTI wrote:
>> > >> > > > "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
>> > >> > > > news:38c8.gop.17.1@news.alt.net...
>> > >> > > >
>> > >> > > > 4
>> > >> > > >
>> > >> > > this is not a golfign NG dan I would expect you topay attention
>> > >> > > but
>> > >> > > you
>> > >> > > insit on disappointing me
>> > >> > >
>> > >> > Sort of like how you were/are a dissapointment to your parents,
>> > >> > Markie
>> > >> > the Moron.
>> > >> no I am not my father is proud of me proud of the fact for example I
>> > > >
>> > > You suck more cocks then he does, huh, faggot?
>> > >
>> >
>> > Welcome to my killfile
>
> SPANK!
>
>> be preapred to do that a lot
> Yeah, Markie is going to spam some more!
>
Before he does, he might want to review his ISP TOS
```

2623. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 15:57:59 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <aKHag.69777$Fs1.66674@bgtnsc05-news.ops.worldnet.att.net>
Source record: 59365

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I am really puzzled. I cannot see even one inconsistency in my
>> statements, including those you quote.
>>
>> What is the problem?
>
>
> You said there is phase remaining in the cos(kz) term which
> is contained in the amplitude.
>
> Then you said there is no phase information.
>
> Those statements contradict each other.
>

Cecil,

My exact words, which you quoted, were,

> The only "phase" remaining is the cos (kz) term, which is really
> an amplitude description, not a phase.

If you interpreted that comment as supporting the existence of a phase
in this situation, then I cannot offer any help except to suggest you go
back and review the meaning of "not".

This has become sillier than I ever imagined possible. I am done with
this FIGHT!

73,
Gene
W4SZ

2624. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 16:17:07 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <h0lag.22$Ek4.4@fe09.lga>
Source record: 59366

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:nggm62t1oj5bqickhi7io3q9110s0fvtgl@4ax.com...
> On Wed, 17 May 2006 11:30:55 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>>Electrostatic shields work on principle of capacitance plate, being
>>grounded
>>and side exposed to electrical/electrostatic fields
>
> There's a very simple test of this "shield." It relates to experience
> and doesn't need for you to go to the library.
>
> 1.) Tack a wire across the gap.
>
> Q. Do you still have signal?
>
> A. No!? None????
>
Agree!
That makes it Faraday shield, which stops any signal from entering inside of the tubing.
I never asserted that Faraday shield or closed metallic enclosure passes any signals or fields.
We are talking about electrostatic shield, which if removed, antenna works without change, you put it back, it still works the same way plus it rejects in its reactive near field region electrical field interference.
If it was to be antenna, then when removed, the rest should stop working as an antenna, or what is the theory?

> Extra Credit Question:
> Did the wire make the "shield" better, or worse?
>
It turned it to Farady shield and prevented signals from exciting the antenna inside.

Extra Credit Question for professor:
Q1: If electrostatic shield is added to small loop antenna and it attenuates the interference or signals from its vicinity, does it perform the function of a shield or antenna?
Q2: Can the piece of tubing that is grounded by its outside surface, acts as a capacitor's plate and provide the path to ground for electric field in vicinity?

> 73's
> Richard Clark, KB7QHC

>
> p.s.
> from your experience, the answer to the initial question above may
> vary. If in fact it does, it may bring new material for discussion.

I just wish that points of discrepancy were addressed, rather than parties taking off on tangents fitting their convinctions and trying to weasel out of the wrong statements.

73 Yuri, K3BU

2625. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 16:19:13 UTC
From: an old freind <upperpenarmyguy@yahoo.com>
Message-ID: <1147882753.655689.240880@j55g2000cwa.googlegroups.com>
Source record: 59367
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Noon-Air wrote:
> "N0VFP" <lloyd_n0vfp@yahoo.com> wrote in message
> news:1147880180.587485.304520@j55g2000cwa.googlegroups.com...
> >
> > assraped by an old freind wrote:
> >> Noon-Air wrote:
> >> > <X-Post canceled>

> >> > Welcome to my killfile
> >
> > SPANK!
> >
> >> be preapred to do that a lot
> > Yeah, Markie is going to spam some more!
> >
> Before he does, he might want to review his ISP TOS
I might need if I were going to spam at all
but since i am just responding to a madmans cyber harrasmentI need not
wory

2626. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 16:19:17 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <92lag.72900$_S7.5652@newssvr14.news.prodigy.com>
Source record: 59368

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> As I pointed out some time ago, the envelope of a standing wave isn't
>> in general sinusoidally shaped.
>
>
> Assuming the source signal is sinusoidal, your above assertion
> would require non-linearity in the antenna. Since antennas are
> generally considered to be linear systems, would you please
> explain where the nonlinearity is coming from?

No it wouldn't, Cecil. Even you know better than that. For those who believe Cecil, consider a lossy transmission line terminated in a short, or open. The signal is attenuated as it goes down the line, and also attenuated as it comes back up the line, in an exponential fashion. The envelope is thus not sinusoidal. The signal may be sinusoidal, but the envelope can't possibly be. Cecil's antennas may be lossless, but most of us want our antennas to radiate energy, hopefully, as efficiently as possible, so we have to put up with current distributions that aren't easy either to envision or to calculate. That's why even Cecil uses EZNEC.
73,
Tom Donaly, KA6RUH

2627. Re: F connectors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 16:22:41 UTC
From: KC1DI <davekc1di@gmail.net>
Message-ID: <e4fig5vid1@emma.aioe.org>
Source record: 59369

John Ferrell wrote:
> Thanks to all, I will use F's in my experimenting. I will probably
> need to fabricate an adapter for a UHF to F for the rig output but
> that is not a big deal.
>
> de W8CCW John
>
>
>> I've used them here for years in both HF and VHF work .. have had no
>> problems at 100w Levels even with swr's as High as 10:1.. give it a shot.
>> 73 Dave KC1DI
>> by the way for all you G5RV users out there.. RG6 75 ohm and
>> f-connectors work very will and give a bit better of a match to the G5RV
>> than the standard 50 oh model.
> John Ferrell W8CCW
F to UHF PL-259 are quite common I bought several at Radio Shack a
couple years ago assume they still carry them.
73 Dave Kc1di

2628. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 16:36:28 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <qilag.12$uG3.4@fe08.lga>
Source record: 59370

> I think, the real comparitive results is the only one that counts
> for an antenna.
>
> With best 73s
>
> Felix HB9ABX
>

That is only the indication that antenna works.

The REAL comparative results are the measurements done on the test range and compared to antenna that you claim to be as good or better.
Another indication of performance would be to model the antenna in question vs. "standard" like full size vertical.
Another meaningful test would be to compare RoomCap antenna to another efficient mobile antenna like TexasBugcatcher or Screwdriver, on the same car, taking field strength measurements.

If it is so good as you claim, normally one would apply for patent and make millions by selling it. Claiming miracles and asking for money to find out what it is, is fishing for fools.

Hams are (or were) known to be honest, gentlemen and willing to share their ideas with others for advancement of our art. Looks like lately we have influx of "magicians" claiming to outperform real antennas with some miniatures. So far no winners!

Good Luck.

Yuri, K3BU, ex OK3BU

2629. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 16:54:00 UTC
From: richardharrison@webtv.net
Message-ID: <6571-446B5528-802@storefull-3251.bay.webtv.net>
Source record: 59372

Cecil, W5DXP wrote:
"Assuming the source signal is a pure sine wave, if the standing wave current "isn`t in general sinusoidally shaped (as Roy said)", then the antenna would have to be introducing harmonic radiation that doesn`t exist in the source signal."

Standing waves are produced by forward and reflected traveling soinusoidal waves produced by the same generator. Coherent signals on a transmission line and antenna of the same frequency are correctly represented by phasors.

The term phasor is preferred over vector for an arrow which indicates phase separation and magnitude of an electrical unit. Phasors are used to represent sinusoidal voltages and currents. They are also used to represent reactances and impedances.

Like vectors, phasors can be "added" by the head-to-tail method or by the component method.

If a phasor represents an alternating current:
I = Io cos omega t,
then the sum of the two phasors representing forward and reflected sinusoidal components is another sinusoid of the same frequency.

Point is the components are amenable to phasor representation. All the old authors do it. This amenability is proof the standing wave is a sinusoid too.

Best regards, Richard Harrison, KB5WZI

2630. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 16:57:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <Jdudne5H9NQuy_bZRVny0Q@bt.com>
Source record: 59371

"Yuri Blanarovich" <K3BU@optonline.net> wrote in message
news:XtHag.359$Zl1.209@fe11.lga...
> >> Reg wrote:
> >> The type of antenna or its radiation pattern has nothing whatever
to
> >> do with the path taken by the radio wave through the ionosphere.
The
> >> take-off angle and its name, generated by EZNEC, can be very
> >> misleading.
> >
>
> It has to do. It allows us to direct the RF under desired angle to
hit the
> layer or region that supports the propagation to the chosen target.
=====================================
Yuri,

But you can't "direct" it.

You have to do your best with whatever elevation angle Eznec dictates.

Reg.

2631. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 17:10:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <INIag.18198$Lm5.16211@newssvr12.news.prodigy.com>
Source record: 59373

Yuri Blanarovich wrote:
> I have seen situations when signals to Europe were coming under low angle
> and in the same direction, signals to deep Asia were coming under higher
> angle at the same time.

Seems to me a rotatable dipole with the ability to also
rotate from horizontal to vertical would be a good thing
to have.
--
73, Cecil http://www.qsl.net/w5dxp

2632. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 17:12:23 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <XPIag.18199$Lm5.11708@newssvr12.news.prodigy.com>
Source record: 59374

Gene Fuller wrote:
> > The only "phase" remaining is the cos (kz) term, which is really
> > an amplitude description, not a phase.

Yes, there it is again, you said there is phase information
in the amplitude description and you were right.
--
73, Cecil http://www.qsl.net/w5dxp

2633. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 17:19:39 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7fkm62tlm1boimk34offiteh8oha5b3m8u@4ax.com>
Source record: 59375

On Wed, 17 May 2006 12:17:07 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>> Extra Credit Question:
>> Did the wire make the "shield" better, or worse?

>It turned it to Farady shield and prevented signals from exciting the
>antenna inside.

It's still the same "1/2 inch copper water tubing (non ferrous
material passing the magnetic field)."

So, does that wire make the "shield" better, or worse?

Super-extra credit question:
If we replaced the non ferrous material (same gap, no link) with (most
have probably anticipated this) a ferrous material, does this allow
near field region electrical field interference to pass un-impeded?

73's
Richard Clark, KB7QHC

2634. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 17:22:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dsmm62p6dqgd2eftar1p8i3pch5mt4ce62@4ax.com>
Source record: 59276

On Wed, 17 May 2006 16:19:17 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Cecil's antennas may be lossless,

Hi Tom,

Even more amazing is that they are linear transmission lines.

73's
Richard Clark, KB7QHC

2635. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 17:30:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <c5Jag.18205$Lm5.10572@newssvr12.news.prodigy.com>
Source record: 59277

Tom Donaly wrote:

> Cecil Moore wrote:
>> Assuming the source signal is sinusoidal, your above assertion
>> would require non-linearity in the antenna. Since antennas are
>> generally considered to be linear systems, would you please
>> explain where the nonlinearity is coming from?
>
> No it wouldn't, Cecil. Even you know better than that. For those who
> believe Cecil, consider a lossy transmission line terminated in a short,
> or open. The signal is attenuated as it goes down the line, and also
> attenuated as it comes back up the line, in an exponential fashion.
> The envelope is thus not sinusoidal.

An attenuated (damped) sinusoidal signal is still sinusoidal, Tom.
The fact that such a signal doesn't generate harmonics proves
that it is sinusoidal. If it were not sinusoidal, it would
by definition, be generating harmonics. Are you really asserting
that a damped sinusoidal signal generates harmonics? That's the
only way to prove it has gone nonsinusoidal.

All non-sinusoidal waveforms contain harmonics of the fundamental
frequency. Every competent engineer in the world is aware of that
technical fact. If the source signal to an antenna is a pure single-
frequency sine wave, and if the standing wave current is non-
sinusoidal, then the antenna has necessarily introduced harmonics,
i.e. the antenna is non-linear.

W7EL is simply mistaken when he says the standing wave current
waveform is not sinusoidal. If the standing wave current waveform
ever was nonsinusoidal, the antenna would, by definition, be
non-linear and be generating harmonics not present in the source
waveform.

Seems you guys need to review your Math 202 course covering Fourier
transforms.
--
73, Cecil http://www.qsl.net/w5dxp

2636. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 17:35:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <a9Jag.18208$Lm5.14922@newssvr12.news.prodigy.com>
Source record: 59278

Richard Harrison wrote:
> If a phasor represents an alternating current:
> I = Io cos omega t,
> then the sum of the two phasors representing forward and reflected
> sinusoidal components is another sinusoid of the same frequency.
>
> Point is the components are amenable to phasor representation. All the
> old authors do it. This amenability is proof the standing wave is a
> sinusoid too.

The absence of harmonic frequencies generated by the antenna
is also proof that the standing wave is a sinusoid. All
nonsinusoidal waveforms contain harmonics.
--
73, Cecil http://www.qsl.net/w5dxp

2637. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 17:45:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <EiJag.18213$Lm5.448@newssvr12.news.prodigy.com>
Source record: 59279

Richard Clark wrote:

> <dtdonaly@sbcglobal.net> wrote:
>>Cecil's antennas may be lossless,
>
> Even more amazing is that they are linear transmission lines.

In spite of W7EL's assertions that antennas generate nonsinusoidal waveforms, they indeed are linear and bear a striking resemblence to a lossy transmission line. Why do you think they are called standing wave antennas?

Take a look at page 18 of Balanis' "Antenna Theory", 2nd edition, Figure 1.15. He shows how to turn a transmission line into an dipole with exactly the same standing wave current distribution before and after.
--
73, Cecil http://www.qsl.net/w5dxp

2638. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 17:52:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ulom62hlrlej0nmvp8vak5o4te9rdb4snc@4ax.com>
Source record: 59280

On Wed, 17 May 2006 17:45:08 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>> Even more amazing is that they are linear transmission lines.
>they indeed are linear

What is distinctly NOT amazing, is to see foolishness repeated.

2639. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 18:04:51 UTC
From: richardharrison@webtv.net
Message-ID: <23820-446B65C3-180@storefull-3252.bay.webtv.net>
Source record: 59282

Richard Clark, KB7QHC wrote:
"Even morte amazing is that they (antennas) are linear transmission lines."

Antennas and transmission lines are linear, passive, and carry incident and reflected waves in much the same manner.

Look at "Current Distribution in Wire Antennas" on page 866 of Terman`s 1955 edition of "Electronic and Radio Engineering":
"A wire antenna is a circuit with distributed constants; hence the current distribution in a wire antenna that results from the application of a localized voltage follows the principles discussed in Chapt. 4---."
Chapt.4 is entitled "Transmission Lines".

Best regards, Richard Harrison, KB5WZI

2640. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 18:05:41 UTC
From: w8ji@akorn.net
Message-ID: <1147889140.963956.184990@y43g2000cwc.googlegroups.com>
Source record: 59281

Yuri Blanarovich wrote:
> That makes it Faraday shield, which stops any signal from entering inside of
> the tubing.
> I never asserted that Faraday shield or closed metallic enclosure passes any
> signals or fields.
> We are talking about electrostatic shield, which if removed, antenna works
> without change, you put it back, it still works the same way plus it rejects
> in its reactive near field region electrical field interference.
> If it was to be antenna, then when removed, the rest should stop working as
> an antenna, or what is the theory?

Yuri,

A shield is a shield.

People made some very good posts explaining how the "shield" works, and there was nothing wrong with my original explaination.

You stated the shield is an "electrostatic" shield and I pointed out a static field does NOT cause noise. Static is by definition stationary or non-varying.

The only reason the shield affects the noise, as I and others have pointed out, is the shield changes the balance of the system. The shield IS the actual portion of the antenna that receives the signal, whether that signal is noise or an intentional desired signal.

The entire shield can be dispensed with without any change in the system so long as the system remains in balance, and that is quite possible to do.

As a mater of fact if a non-symmetrical "shield" is added over a balanced system it will decrease balance and make the system more susceptable to noise because the feedline will become part of the actual antenna.

You might look for a copy of "Fundamentals of Electricity and Magnetism" (McGraw-Hill). This entire book deals with basic field behavior and entire chapters explain in detail what everyone is saying.

As Roy pointed out, I didn't make this stuff up. It has been in print since the 1800's and the electric field effects first experimented with around 600 BC (although it was the 1600's before serious experiments were done).

There's nothing impossible about what you may have observed but the reasoning you gave and statements about my explaination being in error

are wrong.

There is absolutely nothing that causes noise to electric field dominant and the shield absolutely does not "filter" the time-varying electric field from the time-varying magnetic field. The shield IS the actual antenna and the stuff inside it, once inside it, is excited only by the gap. Nothing at frequencies of interest passes through the shield walls.This is a very well-known behavior and why so many immediately disagreed with your description.

73 Tom

2641. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 18:26:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <faqm62p21no166t3vd2q3c8rnjepi09tun@4ax.com>
Source record: 59283

On Wed, 17 May 2006 13:04:51 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Clark, KB7QHC wrote:
>"Even morte amazing is that they (antennas) are linear transmission
>lines."

morte indeed.

>Antennas and transmission lines are linear, passive, and carry incident
>and reflected waves in much the same manner.

Hi Richard,

I note you do NOT say "in exactly the same manner," which is unsupportable in the literature. So, when you abstract from antennas to
>Chapt.4 is entitled "Transmission Lines".
it is apparent that to a first approximation, and for the purposes of illustration (not engineering, except for amateur purposes) that it may seem to be so.

Of course, all things are possible when the limits of Cecil's error band encompass ï¿½59%. Even White can be darn dark.

73's
Richard Clark, KB7QHC

2642. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 18:46:39 UTC
From: richardharrison@webtv.net
Message-ID: <4751-446B6F8F-939@storefull-3255.bay.webtv.net>
Source record: 59284

Yuri, K3BU wrote:
"Electrostatic shields work on principle of capacitance plate, being grounded and side exposed to electrical/electrostatic fields."

Terman on page 1049 of his 1955 edition writes:
"Such a shield ensures that all parts of the loop will always have the same capacitance to ground irrespective of the loop orientation in relation to neighboring objects."

Yuri is consistent with Terman, and that is liable to be better than a bible because it is provable and demands no faith. If wrong, it will be rewritten with corrections.

Best regards, Richard Harrison, KB5WZI

2643. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 19:15:24 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <LqadnVYT06Kx6vbZnZ2dnUVZ8qqdnZ2d@bt.com>
Source record: 59285

"Yuri Blanarovich" <K3BU@optonline.net> wrote in message
news:XtHag.359$Zl1.209@fe11.lga...
> >> Reg wrote:
> >> The type of antenna or its radiation pattern has nothing whatever
to
> >> do with the path taken by the radio wave through the ionosphere.
The
> >> take-off angle and its name, generated by EZNEC, can be very
> >> misleading.
> >
>
> It has to do. It allows us to direct the RF under desired angle to
hit the
> layer or region that supports the propagation to the chosen target.
==
Yuri,

The elevation angle of the radio path from the transmitter on its way
to the target changes with the number of hops.

How does Eznec know the number of hops? How does Eznec know which
angle is correct? How does Eznec know the height of the reflecting
layers? How does Eznec know the distances at which the radio wave
returns to Earth to be re-reflected?

Eznec doesn't know. And neither does the radio operator unless he
estimates everything AFTER the event.

Radio waves follow paths dictated by trigonometry and geometry and are
entirely independent of the idiosyncrasies of radio antennas.

Reg.

2644. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 19:35:32 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <hvadnRf3er2Z5vbZRVn-tA@adelphia.com>
Source record: 59286

Yuri Blanarovich wrote:
> "Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
> news:FJCdnXEsfsmMv_bZRVn-tw@adelphia.com...
>
>>Roy Lewallen wrote:
>>
>>
>>>If you'll read what Tom has posted, or a description in any good text,
>>>you'll find that the whole circumference of a "shielded" loop radiates.
>>>The field comes from current on the outside of the "shield", not from
>>>some field penetrating the shield. That's my theory. It's the same as
>>>Tom's, and that of every respected author I've read.
>>
>>Game, Set, and Match, Roy. The explanation and the everyday application of
>>the concept of non-ferrous shielding are both simple and elegant.
>>
>>Seems like the thread stopper to me! I suspect it will continue anyhow....
>>8^)
>>
>>- 73 de Mike KB3EIA -
>
>
> Before you pronounce your verdict, why don't youze guyze build the shielded
> loop antenna as I described and test it. Try version without shield, see
> what IS antenna, and try the same antenna with shielded loop. Then run
> electric drill or another source of arcing or interference in the vicinity
> and see if there is shielding effect or not. Then pronounce your verdict and
> pontificate on how electrostatic shields suppose to work. Otherwise you look
> silly like W8JI cult worshippers.

Yuri, you is way too intense! I don't pontificate, and my silliness is
genetic, not involved in any worship of W8JI.

I very much expect that any effects that you see may be due to another
cause than what you attribute it to. I don't know if your antenna is not
completely shielded along it's entire circumference or not. I wonder if
you could put your antenna inside a Faraday cage and see different
results. Perhaps even try the unshielded antenna in the Faraday cage.

Unshielded antenna in cage should equal shielded loop in open. If it
doesn't, I'd look for a problem in the experiment first, not a problem
in the theory.

- 73 de Mike KB3EIA -

2645. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 19:37:38 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <6YKag.73117$F_3.1987@newssvr29.news.prodigy.net>
Source record: 59287

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Cecil Moore wrote:
>>
>>> Assuming the source signal is sinusoidal, your above assertion
>>> would require non-linearity in the antenna. Since antennas are
>>> generally considered to be linear systems, would you please
>>> explain where the nonlinearity is coming from?
>>
>>
>> No it wouldn't, Cecil. Even you know better than that. For those who
>> believe Cecil, consider a lossy transmission line terminated in a
>> short, or open. The signal is attenuated as it goes down the line, and
>> also
>> attenuated as it comes back up the line, in an exponential fashion.
>> The envelope is thus not sinusoidal.
>
>
> An attenuated (damped) sinusoidal signal is still sinusoidal, Tom.
> The fact that such a signal doesn't generate harmonics proves
> that it is sinusoidal. If it were not sinusoidal, it would
> by definition, be generating harmonics. Are you really asserting
> that a damped sinusoidal signal generates harmonics? That's the
> only way to prove it has gone nonsinusoidal.
>
> All non-sinusoidal waveforms contain harmonics of the fundamental
> frequency. Every competent engineer in the world is aware of that
> technical fact. If the source signal to an antenna is a pure single-
> frequency sine wave, and if the standing wave current is non-
> sinusoidal, then the antenna has necessarily introduced harmonics,
> i.e. the antenna is non-linear.
>
> W7EL is simply mistaken when he says the standing wave current
> waveform is not sinusoidal. If the standing wave current waveform
> ever was nonsinusoidal, the antenna would, by definition, be
> non-linear and be generating harmonics not present in the source
> waveform.
>
> Seems you guys need to review your Math 202 course covering Fourier
> transforms.

We're talking about the envelope, Cecil, what are you talking about?
Since you've become so enamored of math all of a sudden, go ahead and

plot the current envelope on a length of very lossy transmission line
and tell me, with a straight face, that it follows a sine
function. On the other hand, don't bother. I know it's too hard
on your head, but it's an interesting exercise for everyone else.
73,
Tom Donaly, KA6RUH

2646. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 19:42:25 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <IludnS3afJg44fbZRVn-pw@adelphia.com>
Source record: 59288

Yuri Blanarovich wrote:
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:nggm62t1oj5bqickhi7io3q9110s0fvtgl@4ax.com...
>
>>On Wed, 17 May 2006 11:30:55 -0400, "Yuri Blanarovich"
>><K3BU@optonline.net> wrote:
>>
>>
>>>Electrostatic shields work on principle of capacitance plate, being
>>>grounded
>>>and side exposed to electrical/electrostatic fields
>>
>>There's a very simple test of this "shield." It relates to experience
>>and doesn't need for you to go to the library.
>>
>>1.) Tack a wire across the gap.
>>
>>Q. Do you still have signal?
>>
>>A. No!? None????
>>
>
> Agree!
> That makes it Faraday shield, which stops any signal from entering inside of
> the tubing.

Makes it a short!

> I never asserted that Faraday shield or closed metallic enclosure passes any
> signals or fields.

Aren't both conditions shields?. One just has a short.

> We are talking about electrostatic shield, which if removed, antenna works
> without change, you put it back, it still works the same way plus it rejects
> in its reactive near field region electrical field interference.
> If it was to be antenna, then when removed, the rest should stop working as
> an antenna, or what is the theory?
>
>
>>Extra Credit Question:
>>Did the wire make the "shield" better, or worse?
>>
>
> It turned it to Farady shield and prevented signals from exciting the

> antenna inside.
>
> Extra Credit Question for professor:
> Q1: If electrostatic shield is added to small loop antenna and it attenuates
> the interference or signals from its vicinity, does it perform the function
> of a shield or antenna?

> Q2: Can the piece of tubing that is grounded by its outside surface, acts as
> a capacitor's plate and provide the path to ground for electric field in
> vicinity?
>
>
>>73's
>>Richard Clark, KB7QHC
>>
>>p.s.
>>from your experience, the answer to the initial question above may
>>vary. If in fact it does, it may bring new material for discussion.
>
>
> I just wish that points of discrepancy were addressed, rather than parties
> taking off on tangents fitting their convinctions and trying to weasel out
> of the wrong statements.

Give it a few more posts, Yuri, and it will turn into standing waves in
coils again!! ;^)

- 73 de Mike KB3EIA -

2647. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 19:42:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <aium6212238ud63nte4nhouqb1vmavn0j2@4ax.com>
Source record: 59289

On Wed, 17 May 2006 20:15:24 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>The elevation angle ... changes
...
>Radio waves follow paths dictated by trigonometry and geometry
a curious trig and geometry at that
>entirely independent of the idiosyncrasies of radio antennas.
and unzipped software propagation forecasters too?

Hi Reggie,

I especially enjoy how you attempt to poison the restaurant to kill
waiter:
>How does Eznec know
>How does Eznec know
>How does Eznec know
>How does Eznec know
>Eznec doesn't know
Which presumes a claim (four of them in fact) not made (except by you,
but then anyone can put antenna modeling tools to foolish propagation
uses).

I won't ask for substantiation on your geometry, Lord Kelvinator has
turned his back on these absurd proceedings too. I will leave you
with the last exasperated gasp.

73's
Richard Clark, KB7QHC

2648. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 19:45:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s7vm621108ps0mmcv4rd234gdab4ceqn4f@4ax.com>
Source record: 59290

On Wed, 17 May 2006 13:46:39 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Yuri is consistent with Terman, and that is liable to be better than a >bible because it is provable and demands no faith. If wrong, it will be >rewritten with corrections.

Hi Richard,

It is one thing to run a Xerox, it is another to apply it to one particular howler that has Yuri stumped:

Super-extra credit question:
If we replaced the non ferrous material (same gap, no link) with (most have probably anticipated this) a ferrous material, does this allow near field region electrical field interference to pass un-impeded?

73's
Richard Clark, KB7QHC

2649. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 20:11:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <fsLag.72974$_S7.71684@newssvr14.news.prodigy.com>
Source record: 59291

Richard Clark wrote:
> Cecil Moore <mycall@hotmail.com> wrote:
>>>Even more amazing is that they are linear transmission lines.
>>
>>they indeed are linear
>
> What is distinctly NOT amazing, is to see foolishness repeated.

Either transmission lines are linear or they are not linear.
The only way for them to generate nonsinusoidal signals is
for them to be nonlinear. The same goes for antennas.
--
73, Cecil http://www.qsl.net/w5dxp

2650. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 20:17:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <131n625dmi9j191df9culot6la3btmna6q@4ax.com>
Source record: 59292

On Wed, 17 May 2006 20:11:55 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>> Cecil Moore <mycall@hotmail.com> wrote:
>>>>Even more amazing is that they are linear transmission lines.
>>>
>>>they indeed are linear
>>
>> What is distinctly NOT amazing, is to see foolishness repeated.
>
>Either transmission lines are linear or they are not linear.

Now there's a motto to live by.

>The only way for them to generate nonsinusoidal signals is

Oh this is going to be good...

>for them to be nonlinear.

Transmission lines generate signals? What a guffaw!

>The same goes for antennas.

Double chuckle.

Talk about linear thinking
woops
Binary thinking, nothing linear from you this round.

2651. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 20:36:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <tPLag.72985$_S7.7376@newssvr14.news.prodigy.com>
Source record: 59293

Richard Clark wrote:
> I note you do NOT say "in exactly the same manner," which is
> unsupportable in the literature.

"Exactly" is one of the buzz words like "perfect", "always",
"never", "infinite", "lossless", etc. that invariably make
any statement using them false. Nobody, except some "experts"
on this newsgroup, is ignorant enough to use those words in
a supposedly technical valid sentence.
--
73, Cecil http://www.qsl.net/w5dxp

2652. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 20:43:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <UVLag.72987$_S7.24744@newssvr14.news.prodigy.com>
Source record: 59294

Tom Donaly wrote:
> We're talking about the envelope, Cecil, what are you talking about?
> Since you've become so enamored of math all of a sudden, go ahead and
> plot the current envelope on a length of very lossy transmission line
> and tell me, with a straight face, that it follows a sine
> function. On the other hand, don't bother. I know it's too hard
> on your head, but it's an interesting exercise for everyone else.

The envelope of an unattenuated sine wave is a straight line, Tom.
Is a straight line sinusoidal? Give us an everloving break! You
can fool half the people half the time but please stop trying to
fool all the people all the time.

Here is an example that should put an end to your foolishness.

100W-----50 ohm coax------50 ohm load dissipating 50 watts

Please explain how the 3dB attenuation in the coax causes
nonsinusoidal signals in the system. Proof of nonsinusoidal
signals would be the generation of harmonics. We are all
awaiting your reinvention of the laws of physics.
--
73, Cecil http://www.qsl.net/w5dxp

2653. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 20:46:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <oYLag.72988$_S7.59089@newssvr14.news.prodigy.com>
Source record: 59295

Richard Clark wrote:
> Transmission lines generate signals? What a guffaw!

Put a diode in a transmission line and it will definitely
generate a signal on a frequency that didn't exist before.
I'm really surprised that you don't know that fact of physics.
--
73, Cecil http://www.qsl.net/w5dxp

2654. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 20:49:56 UTC
From: richardharrison@webtv.net
Message-ID: <23154-446B8C74-836@storefull-3254.bay.webtv.net>
Source record: 59298

Tom, W8JI wrote:
"There is absolutely nothing that causes (sic) noise to electric field dominant and the shield absolutely does not "filter" the time-varying electric field from the time varying magnetic field."

A "Faraday shield" is designed to allow magnetic field coupling while disallowing electric coupling. See page 38 of Terman`s 1955 edition:
"It is possible to shield slectrostatic flux without simultaneously affecting the magnetic field by surrounding the free space to be shielded with a conducting cage that is made in such a way as to provide no low-resistance path for the flow of eddy currents, while at the same time offering a metallic terminal upon which electrostatic flux lines can terminate."

I`ve previously described the Faraday picket fences or Faraday screens used in the medium wave broadcast stations where I worked that were used to avoid capacitive coupling to the antennas while permitting magnetic coupling. Capacitive coupling would favor harmonics of the operating frequency. These are undesirable. The Faraday screen effectively rejects the capacitive coupling. It shorts the lightning strikes to ground too.

In a Faraday screen one end of pickets or wires is grounded. Their other ends are open-circuited. So, circulating current can`t flow through the wires. Thus, no counter-field can be generated to oppose magnetic coupling but capacitive flux lines land on the wires and are shorted to ground. It all works very well.

Look at Terman`s shielded loop on page 1048 of his 1955 editiomn. There`s a gap in the shield opposite the feedpoint. The gap prevents current circulation in the loop shield thereby making it permeable to magnetic coupling while shorting the electric field to ground. Therefore, this loop cover is a Faraday screen.

Why should we care if noise comes from near or far? The near field has 3 components. See "TV and Other Receiving Antennas" by Arnold B. Bailey.

The first near field component is produced by the electric vector and decays by the cube of the distance. The second is the induction field and decays as the square of the distance. The third is the radiation field electric vector which becomes the volts per meter at a great distance. This decays inversely with distance and its power decays as the square of the distance. 6 dB every time the distance doubles.

Point is we don`t have to get very far from a noise source to make a big improvement in noise received, especially if we avoid electric field coupling which decays especially fast in the near field.

Best regards, Richard Harrison, KB5WZI

2655. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 20:57:58 UTC
From: w8ji@akorn.net
Message-ID: <1147899478.011515.67280@i40g2000cwc.googlegroups.com>
Source record: 59296

Richard Harrison wrote:
> Yuri is consistent with Terman, and that is liable to be better than a
> bible because it is provable and demands no faith. If wrong, it will be
> rewritten with corrections.

If you read what has been said here very carefully you will find Yuri claims the shield "blocks electric fields" or stops "electrostatic fields". This is the effect of a Faraday cage or shield.

I did not claim that effect. Terman certainly did not. It is a folklore or Ham-myth that only appears in amateur circles.

What others (including Terman exactly as you quoted) are trying to tell Yuri is the shield ONLY affects balance. The shield IS the actual antenna element that does the radiating. That is written in a half dozen engineering good engineering references. That is how ANY shield behaves.

Read here:

http://en.wikipedia.org/wiki/Faraday_cage

or here:

http://members.aol.com/omlcgm/detecknowledgy/faraday.htm

or any of dozens of other places. Unless an off-the-wall hobbyist publication or rouge opinion, you will see everyone agrees.

What Terman said is absolutely correct. The "shield" (when properly constructed) balances the capacitance of the antenna to earth. It does not "stop" the electric field. It certainly does not filter a time-varying electric field because doing so would by definition of Maxwell's equations (which everyone who isn't a CFA or EH antenna quack agrees are true) also stop the time varying magnetic field.

As everyone (including Terman) has tried to explain, the shield only affects balance. The shield HAS to be the actual antenna element because by definition of ALL the peer-reviewed textbooks published to date as well as any description of coaxial cables the inner shield wall is isolated from the outside by the skin depth of that wall.

This is so very simple to prove, it only takes a moment. It doesn't even take exotic test gear. These experiments were done in the 18th century with very crude instruments.

You can take a solid copper sheet for example and place a small loop antenna near that "wall". If you probe current on the wall near the

loop on the loop side, you will find a current maximum right under that loop. VERY easy to see. 100% repeatable.

Now if you move the probe to the other side of the wall you will find current MINIMUM at the sheet center and increasing towards two of the edges.

This is a TOTALLY open wall with no seal, it isn't even a box.

Shields a few skin depths thick are a virtually perfect barrier to both magnetic and electric fields. This is true for densely woven coaxial cable shield or even thin aluminum shields, metallic sheets, or any good conductive wall.

Saying Terman supports anything to the contrary only proves someone is misquoting or misunderstanding plain English, since Terman is a very clear writer. There is no way Terman failed basic physics and his peer reviewed textbooks are wrong.

Yuri may need to read some basic textbooks, I'd be happy to copy the applicable pages if there isn't a good library nearby. It is essential to get the basics down solid.

73 Tom

2656. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 21:00:36 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <3aMag.70$%u5.36@fe11.lga>
Source record: 59297

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:Jdudne5H9NQuy_bZRVny0Q@bt.com...
>
> "Yuri Blanarovich" <K3BU@optonline.net> wrote in message
> news:XtHag.359$Zl1.209@fe11.lga...
>> >> Reg wrote:
>> >> The type of antenna or its radiation pattern has nothing whatever
> to
>> >> do with the path taken by the radio wave through the ionosphere.
> The
>> >> take-off angle and its name, generated by EZNEC, can be very
>> >> misleading.
>> >
>>
>> It has to do. It allows us to direct the RF under desired angle to
> hit the
>> layer or region that supports the propagation to the chosen target.
> ====================================
> Yuri,
>
> But you can't "direct" it.
>
> You have to do your best with whatever elevation angle Eznec dictates.
> ----
> Reg.
>
>
You bet I can, I can do that with stacked antennas, rotatable, polarization switchable, phasing, crank up tower changing height antennas - and by what antenna design and surroundings dictate, not EZNEC. EZNEC gives approximate picture of radiation pattern produced by antenna model. Real life (ground conditions, surroundings) changes the antenna pattern.
So I would be carefull giving EZNEC absolute powers dictating anything :-)
Combined with terrain analysis software, it will give better picture of where the antenna projects the signal.

73 Yuri, K3BU

2657. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 21:17:32 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <XpMag.1310$%u5.220@fe11.lga>
Source record: 59299

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:LqadnVYT06Kx6vbZnZ2dnUVZ8qqdnZ2d@bt.com...
>
> "Yuri Blanarovich" <K3BU@optonline.net> wrote in message
> news:XtHag.359$Zl1.209@fe11.lga...
>> >> Reg wrote:
>> >> The type of antenna or its radiation pattern has nothing whatever
> to
>> >> do with the path taken by the radio wave through the ionosphere.
> The
>> >> take-off angle and its name, generated by EZNEC, can be very
>> >> misleading.
>> >
>>
>> It has to do. It allows us to direct the RF under desired angle to
> hit the
>> layer or region that supports the propagation to the chosen target.
> ==
> Yuri,
>
> The elevation angle of the radio path from the transmitter on its way
> to the target changes with the number of hops.
>

The ionospheric propagation is not that clear cut simple, it is very
complicated. We have reflections going on and we have refractions going on
in the media that is like stormy sea. With the same height layer, and
uniform conditions, you can have more hops under higher launching angle, or
you can have fewer hops under lower angles. There could be another higher
layer with more complications of ducting or "bouncing" between the layers.

> How does Eznec know the number of hops? How does Eznec know which
> angle is correct? How does Eznec know the height of the reflecting
> layers? How does Eznec know the distances at which the radio wave
> returns to Earth to be re-reflected?
>
EZNEC knows sheeet about propagation. EZNEC and other antenna modeling
software can calculate the radiation pattern of modeled (not real) antenna
according to given ground parameters and antenna geometry. It gives you idea
how the pattern looks, but not the where the signal goes after entering
propagation media.

> Eznec doesn't know. And neither does the radio operator unless he
> estimates everything AFTER the event.
>

I know based on my experience operating at various times in the sunspot cycle and my knowledge of propagation. There are now quite good propagation programs that based on propagation indices and flux numbers, can give rough idea where is the bulk of propagating going. Extreme antennas can do one better, propagate where software doesn't think you can.

> Radio waves follow paths dictated by trigonometry and geometry and are
> entirely independent of the idiosyncrasies of radio antennas.
> ----
> Reg.

Very fuzzy trig and geometry, it is not polished mirrors out there, it is fuzzy bunch of ion-clouds like "hamburgers" that do their thing massaging the signals. By using antennas that have stearable pattern, vertically and horizontally one can take advantage of various modes of propagation. So it takes natenna "idiot syncracies" to dictate where the signal goes, and how it will propagate, conditions permitting.
See my article on "conducting" way back in CQ Magazine
http://members.aol.com/ve3bmv/bmvpropagation.htm

Yuri, K3BU, VE3BMV

2658. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 21:22:20 UTC
From: Dave <noone@nowhere.com>
Message-ID: <n-edna7tPraMCfbZRVn-qw@crocker.com>
Source record: 59300

"Gene Fuller" <W4SZzzzzzz@att.net> wrote in message
news:aKHag.69777$Fs1.66674@bgtnsc05-news.ops.worldnet.att.net...
> Cecil Moore wrote:
>> Gene Fuller wrote:
>>
>>> I am really puzzled. I cannot see even one inconsistency in my
>>> statements, including those you quote.
>>>
>>> What is the problem?
>>
>>
>> You said there is phase remaining in the cos(kz) term which
>> is contained in the amplitude.
>>
>> Then you said there is no phase information.
>>
>> Those statements contradict each other.
>>
>
>
> Cecil,
>
> My exact words, which you quoted, were,
>
> > The only "phase" remaining is the cos (kz) term, which is really
> > an amplitude description, not a phase.
>
> If you interpreted that comment as supporting the existence of a phase in
> this situation, then I cannot offer any help except to suggest you go back
> and review the meaning of "not".
>
> This has become sillier than I ever imagined possible. I am done with this
> FIGHT!

you haven't been around this group long have you? if you think its silly
now, check back next week and see how its still going on!

2659. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 21:24:29 UTC
From: Dave <noone@nowhere.com>
Message-ID: <ULCdnROU_5oPCfbZnZ2dnUVZ_tWdnZ2d@crocker.com>
Source record: 59301

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:a9Jag.18208$Lm5.14922@newssvr12.news.prodigy.com...
> Richard Harrison wrote:
>> If a phasor represents an alternating current:
>> I = Io cos omega t,
>> then the sum of the two phasors representing forward and reflected
>> sinusoidal components is another sinusoid of the same frequency.
>>
>> Point is the components are amenable to phasor representation. All the
>> old authors do it. This amenability is proof the standing wave is a
>> sinusoid too.
>
> The absence of harmonic frequencies generated by the antenna
> is also proof that the standing wave is a sinusoid. All
> nonsinusoidal waveforms contain harmonics.
> --
i found a way for just a piece of hardline to generate harmonics... and even
stranger, it generated sub-harmonics, dividing the frequency in half to be
exact... now have fun with that one!

2660. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 22:22:46 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <4nNag.5724$%u5.3346@fe11.lga>
Source record: 59302

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:4751-446B6F8F-939@storefull-3255.bay.webtv.net...
> Yuri, K3BU wrote:
> "Electrostatic shields work on principle of capacitance plate, being
> grounded and side exposed to electrical/electrostatic fields."
>
> Terman on page 1049 of his 1955 edition writes:
> "Such a shield ensures that all parts of the loop will always have the
> same capacitance to ground irrespective of the loop orientation in
> relation to neighboring objects."
>
> Yuri is consistent with Terman, and that is liable to be better than a
> bible because it is provable and demands no faith. If wrong, it will be
> rewritten with corrections.
>
> Best regards, Richard Harrison, KB5WZI
>

Richard,
thanks for the reference and support, coming from one who had his hands
"dirtied" with the antennas.

Terman also says just a sentence before:
"Errors from unbalance can be minimized by using circuit arrangements
that are symmetrical with respect to ground, such as shown in Fig. 26-27b.
It is also helpful to enclose the loop in an electrostatic shield, such as
metal housing broken by an insulated bushing, as show schematically in Fig.
26-27c."
and then sentence quoted above.

Clearly, the shield is functioning as an electrostatic shield, providing
symmetry and is not acting as "W8JI Antenna". Loops are the antenna, shield
is the SHIELD, contrary to W8JI proselytizing.
Small loops are the antennas, with or without the shield. Electrostatic
shield is a shield, provides symmetry for the antenna and helps to reject,
shunt the interference from the sources in the proximity of the antenna by
its virtue of the capacitance to the ground.
Terman didn't say: "yo stupid, you don need no stinkin' loops, jus' use the
shield as antenna" :-)))

73 Yuri Blanarovich, K3BU

2661. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 22:30:09 UTC
From: richardharrison@webtv.net
Message-ID: <23154-446BA3F1-857@storefull-3254.bay.webtv.net>
Source record: 59304

Tom, W8JI wrote:
"I did not claim that effect. Terman certainly did not. (Yuri claims the shield "blocks electric fields" or stops "electrostatic fields".)"

I`ll requote Terman from page 38 of his 1955 edition which Tom ignored:
"It is possible to shield electrostatic flux without simultaneously affecting the magnetic field by surrounding the space to be shielded wih a conducting cage that is made in such a way as to provide no low-resistance path for the flow of eddy currents while at the same time offering a metallic terminal upon which electrostatic flux lines can terminate."

That is a description of the shield on Terman`s direction finding loop. The loop has a gap in the shield opposite its feedpoint. The gap prevents current from circulating around the loop shield and thus prevents creation of an opposing magnetic field by the shield to the incident field acting on the loop.

The grounded shield nevertheless terminates electric flux shorting it to ground.

The loop shield is thus a true Faraday screen, not a Faraday car body or screened room.

Best regards, Richard Harrison, KB5WZI

2662. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 22:37:15 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <GANag.1213$252.77@fe12.lga>
Source record: 59303

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:hvadnRf3er2Z5vbZRVn-tA@adelphia.com...
> Yuri Blanarovich wrote:
>> "Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
>> news:FJCdnXEsfsmMv_bZRVn-tw@adelphia.com...
>>
>>>Roy Lewallen wrote:
>>>
>>>
>>>>If you'll read what Tom has posted, or a description in any good text,
>>>>you'll find that the whole circumference of a "shielded" loop radiates.
>>>>The field comes from current on the outside of the "shield", not from
>>>>some field penetrating the shield. That's my theory. It's the same as
>>>>Tom's, and that of every respected author I've read.
>>>
>>>Game, Set, and Match, Roy. The explanation and the everyday application
>>>of the concept of non-ferrous shielding are both simple and elegant.
>>>
>>>Seems like the thread stopper to me! I suspect it will continue
>>>anyhow.... 8^)
>>>
>>>- 73 de Mike KB3EIA -
>>
>>
>> Before you pronounce your verdict, why don't youze guyze build the
>> shielded loop antenna as I described and test it. Try version without
>> shield, see what IS antenna, and try the same antenna with shielded loop.
>> Then run electric drill or another source of arcing or interference in
>> the vicinity and see if there is shielding effect or not. Then pronounce
>> your verdict and pontificate on how electrostatic shields suppose to
>> work. Otherwise you look silly like W8JI cult worshippers.
>
> Yuri, you is way too intense! I don't pontificate, and my silliness is
> genetic, not involved in any worship of W8JI.
>

Sorry! I didn't mean you specifically, jus' generally those who worship W8JI
gospels.

> I very much expect that any effects that you see may be due to another
> cause than what you attribute it to. I don't know if your antenna is not
> completely shielded along it's entire circumference or not. I wonder if
> you could put your antenna inside a Faraday cage and see different
> results. Perhaps even try the unshielded antenna in the Faraday cage.

Of course it will not work, Faraday cage - shield, shields all RF.

> Unshielded antenna in cage should equal shielded loop in open. If it
> doesn't, I'd look for a problem in the experiment first, not a problem in
> the theory.

It is electrostatic shield, not "shielded, closed" loop shield. Antenna will still work the same inside the cage, just will not receive any signals if they are not passed through the cage. I am not overthrowing legitimate theories, I am describing what I observed and objecting to call the shield an antenna, when it isn't!!!

> - 73 de Mike KB3EIA -

I have no problem with theories, I have problem with silly claims that shield is an antenna. I described my experiments, explained behavior and performance of the shielded loop in the near field interfering signals/noise.
Build it, if you have problem with local noise, you would see the benefit of the electrostatic shield on the suppression of it and on symmetry and deep nulls on other signals. Shield is a shield and not antenna. Rest of mumbo-jumbo is twist away from the subject and attempt to legitimize wrongoooo!

73 Yuri Blanarovich, K3BU

2663. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 23:31:27 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <jnOag.3495$y4.724@newsread2.news.pas.earthlink.net>
Source record: 59305
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1147832357.964390.122730@i40g2000cwc.googlegroups.com...
>
> Dan/W4NTI wrote:
>> "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
>> news:38c8.gop.17.1@news.alt.net...
>
>> 4
>
> this is not a golfign NG dan I would expect you topay attention but you
> insit on disappointing me
>>
>> Dan/W4NTI
>

Try a spell check you goofball. I don't give a damn if you are dyslexic or
not. That does not preclude you using a spell checker.

Dan/W4NTI

2664. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 23:33:36 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <kpOag.88986$dW3.78647@newssvr21.news.prodigy.com>
Source record: 59306

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> We're talking about the envelope, Cecil, what are you talking about?
>> Since you've become so enamored of math all of a sudden, go ahead and
>> plot the current envelope on a length of very lossy transmission line
>> and tell me, with a straight face, that it follows a sine
>> function. On the other hand, don't bother. I know it's too hard
>> on your head, but it's an interesting exercise for everyone else.
>
>
> The envelope of an unattenuated sine wave is a straight line, Tom.
> Is a straight line sinusoidal? Give us an everloving break! You
> can fool half the people half the time but please stop trying to
> fool all the people all the time.
>
> Here is an example that should put an end to your foolishness.
>
> 100W-----50 ohm coax------50 ohm load dissipating 50 watts
>
> Please explain how the 3dB attenuation in the coax causes
> nonsinusoidal signals in the system. Proof of nonsinusoidal
> signals would be the generation of harmonics. We are all
> awaiting your reinvention of the laws of physics.

Nice try, but you still keep conflating time with distance.
If any of the lurkers on this newsgroup want, they can
consider a dipole somewhat shorter than 1/2 wavelength. According to
one of Cecil's sources, Balanis, the current distribution on such
a wire resembles a triangle. Now, it's true you can do a Fourier
analysis on this triangle, but you won't come up with frequencies.
You will come up with an infinite group of sine and cosine waves
with units of cycles/meter (as opposed to cycles/second). What earthly
use are units of cycles/meter? Does Cecil have a radio that can tune in
cycles/meter? On the other hand, if you could measure the current and
turn it into a voltage so an oscilloscope could show it, you would see
a nice sine wave everywhere except at the ends of your antenna. And the
units would be in cycles per second. Cycles per meter, phaseless
phasors... you sure have a vivid imagination, Cecil.
73,
Tom Donaly, KA6RUH

2665. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-17 23:53:55 UTC
From: w8ji@akorn.net
Message-ID: <1147910035.289419.94900@38g2000cwa.googlegroups.com>
Source record: 59307

Richard Harrison wrote:
> Tom, W8JI wrote:
> "I did not claim that effect. Terman certainly did not. (Yuri claims the
> shield "blocks electric fields" or stops "electrostatic fields".)"
>
> I`ll requote Terman from page 38 of his 1955 edition which Tom ignored:
> "It is possible to shield electrostatic flux without simultaneously
> affecting the magnetic field by surrounding the space to be shielded wih
> a conducting cage that is made in such a way as to provide no
> low-resistance path for the flow of eddy currents while at the same time
> offering a metallic terminal upon which electrostatic flux lines can
> terminate."

Richard.

I know anything Roy Lewallen agrees with, you disagree with. I know anything I say (or even what I don't say) sets Yuri off into a foaming lather. I really wish you guys could put personal hate or dislike aside and look at facts. This is an imporant issue because the myth about shields is imbedded in amateur circles despite many clearly written engineering texts and very simple experiments that prove the concept of time-varying magnetic fields penetating the shield. It's just a fact when the time-varying electric field is taken to zero so is the time-varying magnetic field.

Static by definition is not moving or varying. Don't confuse jargon describing a different coupling mode with the mechanics of a loop operating at radio frequencies.

When we receive noise or signals, the fields are time-varying. Just as with a piece of coaxial cable, the inner wall of a "shielded loop" is isolated by the skin depth of the conductor from the outside wall. The electric and magnetic coupling effects are what causes a coaxial cable with a dense shield more than a few skin depths thick to ALWAYS have the same current on the inside of the shield as the inner conductor has, and all radiation or common mode current flow over the outside.

This isn't something I invented. It has been in nearly every textbook long before I was born.

I'm pleased that Yuri credits me for the work, but unfortunately I had little to do with it. It really was people from the 1700's and 1800's that did all the work.

You (and Yuri) appear to be confusing how time-varying fields work.

I suggest you put Terman aside and actually read some textbooks on fields.

It's helpful to actually make a few measurements. A few minutes spent with some very simple test equipment would go a long way to "turning on the light".

> The loop shield is thus a true Faraday screen, not a Faraday car body or
> screened room.

If you say so. And as one, it also must block any time-varying magnetic field. As K7ITM points out it is the gap in the loop that is actually the feedpoint, and it is the outside of the loop that is the actual antenna.

If you do not think a loop behaves this way, you need to get busy doing some real important work. You need to get all the Handbooks to quit talking about common mode currents on shield outsides. You need to get them to quit treating the inside of the shield as a isolated conductor that is independent of the outside.

As I and others have suggested it only takes a moment to prove the books are correct. You can prove it with a single sheet of copper and a minimum of test equipment.

73 Tom

2666. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 00:14:22 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <J%Oag.553$Ea1.210@fe09.lga>
Source record: 59308

<w8ji@akorn.net> wrote in message
news:1147910035.289419.94900@38g2000cwa.googlegroups.com...
>
> Richard Harrison wrote:
>> Tom, W8JI wrote:
>> "I did not claim that effect. Terman certainly did not. (Yuri claims the
>> shield "blocks electric fields" or stops "electrostatic fields".)"
>>
>> I`ll requote Terman from page 38 of his 1955 edition which Tom ignored:
>> "It is possible to shield electrostatic flux without simultaneously
>> affecting the magnetic field by surrounding the space to be shielded wih
>> a conducting cage that is made in such a way as to provide no
>> low-resistance path for the flow of eddy currents while at the same time
>> offering a metallic terminal upon which electrostatic flux lines can
>> terminate."
>
> Richard.
>
> I know anything Roy Lewallen agrees with, you disagree with. I know
> anything I say (or even what I don't say) sets Yuri off into a foaming
> lather. I really wish you guys could put personal hate or dislike aside
> and look at facts. This is an imporant issue because the myth about
> shields is imbedded in amateur circles despite many clearly written
> engineering texts and very simple experiments that prove the concept of
> time-varying magnetic fields penetating the shield. It's just a fact
> when the time-varying electric field is taken to zero so is the
> time-varying magnetic field.
>

That really nails it! His "technical" response!
Perfect picture of a jerk parading as an engineer!
Yep, I hate your guts and I made up phony claims on your web site for all to
see, so I can "hate you"! Brilliant! Keep it up!
Halleluja, now we know that shields are antennas, praise the guru!

Bada BUm

2667. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 00:33:23 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tmfn62p65s8g33fe7nddhv5l0clmh9def1@4ax.com>
Source record: 59309

On Wed, 17 May 2006 20:46:12 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Put a diode in a transmission line and it will definitely
>generate a signal on a frequency that didn't exist before.

Third generation joke,
or
the Texas philospher's theory of a Free Lunch.

>I'm really surprised that you don't know that fact of physics.

You have a limitless capacity for being surprised, certainly. What is
more amusing is your capacity to make unrelated correlations to it.

Antennas as non-linear transmission lines have already been covered
and have been part of the literature for quite some time. You simply
need to invest more effort in reading rather than more dimes for Xerox
toner.

2668. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 01:03:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3bgn625ckgq27o2ocl0r8e2m4d0usgatci@4ax.com>
Source record: 59310

On Wed, 17 May 2006 20:36:41 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>> I note you do NOT say "in exactly the same manner," which is
>> unsupportable in the literature.
>
>"Exactly" is one of the buzz words like "perfect", "always",
>"never", "infinite", "lossless", etc. that invariably make
>any statement using them false.

Another motto we can all live by, except maybe its author who in so
many words:

On Fri, 10 Mar 2006 13:35:14 GMT, in rec.radio.amateur.antenna you
wrote:
>Exactly
On Mon, 27 Mar 2006 13:42:12 GMT, in rec.radio.amateur.antenna you
wrote:
>Exactly
>exactly
On Tue, 14 Mar 2006 05:13:52 GMT, Cecil Moore <mycall@arrl.net> wrote:
>Exactly
On Thu, 20 Apr 2006 17:45:39 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:
>Exactly
On Thu, 09 Mar 2006 21:40:40 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:
>always
On Thu, 16 Mar 2006 17:34:51 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:
>always
>always
>always
On Sun, 30 Apr 2006 12:20:10 GMT, Cecil Moore <mycall@hotmail.com>
wrote:
>always
On Wed, 08 Mar 2006 19:04:02 GMT, Cecil Moore <mycall@arrl.net> wrote:
>never
On Tue, 07 Mar 2006 18:01:18 GMT, Cecil Moore <mycall@arrl.net> wrote:
>never
On Fri, 10 Mar 2006 13:35:14 GMT, Cecil Moore <mycall@arrl.net> wrote:
>never
On Thu, 16 Mar 2006 18:20:19 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:

>never
On Tue, 14 Mar 2006 14:28:35 GMT, Cecil Moore <mycall@arrl.net> wrote:
>never

and on and on and on (luckily I only pick up 1/4 of all the effluent)
so much that I'm not inspired to quote the rest of these 5 forbidden
words when 3 peg the irony meter.

>Nobody, except some "experts"
>on this newsgroup, is ignorant enough to use those words in
>a supposedly technical valid sentence.

You know why cowboys wear their jeans inside their boots? [hint is
found above]

2669. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 02:39:47 UTC
From: Buck <not@this.time>
Message-ID: <739l62hisjkonbdqr18tkrnccutl2pllnb@4ax.com>
Source record: 59311

On Tue, 16 May 2006 11:24:00 +0000, Felix
<Felix.27wp16@news.radiobanter.com> wrote:

>Here follows the contacts and the
>received signal reports:
>
>20:10 DJ6YF, 59+10, Hans, Bielefeld
>20:10 DL3EAI, 59, Reino, Mittetal (nr border to PA)
>20:14 DJ6LGB, 58, Peter, Lï¿½neburg
>20:17 G4KHM, 57, John, nr. Brighton
>20:23 DL1JGG, 58, Renald,Plauen
>20:30 DC4HW, 59 Walter, Lauenburg nr Lueneburg
>20:33 DG6DAG, 59+10, Otto, Nord-Hessen nr Kassel
>20:40 YO4RDW, 57, Romeo, Odfbesei, Rumaenien
>20:50 F4AWH, 59, Jean-Luc, nr Besancon
>20:55 2E0BOT, 59, John, Stratford UK
>21:10 DF9YK, 59, Wolfgang, Mainz
>21:11 SP8TDV, 57, Adam, Lublin, Poland
>21:13 HB9AQA, 59+10 - +20, Ferdi, nr Lenzburg
>21:22 9A4M, 59, Mate, Sisah, Croatia
>21:28 G1RVP, 57, Pete, Dereham
>21:30 DJ6MM, 59+10, Paul, Eifel
>21:38 DK5WN, 59, Thomas nr Erfurt
>21:39 SP1DTE 58, Luk Koloberg, Poland
>21:40 HB9XJ, 59+10, Hans, Zuerich
>21:43 QRT
>
>
>With best 73s
>
>Felix HB9ABX

Felix, first of all, there needs to be a comparison with other
antennas over a number of different days with different conditions.
Secondly, I can't believe 59 reports from DX stations (I know, this
puts you into a handicap situation.) The problem is that many DX
stations will report 59 and ask you to repeat your call or name a
hundred times. The test really needs to be handled in an antenna
shootout of sorts. I have a 20 meter hamstick on my car and I often
get 59 reports from dx as well as CONUS stations. When band
conditions are well, I can get a 59 signal from a qrp rig. The real
test of the antenna will be with comparing the reception and reports
with the weakest stations. It takes a tremendous power change to
change a strong signal's report.

Additionally, you claim to be the creator of this antenna. This is also a problem since you are trying to profit from it's plans. You don't have calibrated or calculated gain/loss, bandwidth or radiation patterns. What's to say your antenna is any better than the grasswire antenna if you haven't compared them?

--
73 for now
Buck
N4PGW

2670. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 03:24:10 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <446be8db$0$6141$39cecf19@news.twtelecom.net>
Source record: 59312

Gene Fuller wrote:
>
> Cecil,
>
> I don't know why you go through all of these gyrations. The phase shown
> by Kraus is durn close to zero. Everyone else who has joined in on this
> thread agrees; there is no meaningful phase characteristic for a
> standing wave. Your last sentence above says the same thing.
>
> It seems you simply like to argue, even when there is no disagreement.
> Perhaps you need a dog to go with your hog. 8-)
>
> 73,
> Gene
> W4SZ

That's why I don't pay any attention to anything Cecil posts. I do,
however, pay attention to the responses. Therein lies the gold.

tom
K0TAR

2671. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 03:28:22 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qRRag.28724$4L1.6969@newssvr11.news.prodigy.com>
Source record: 59314

Tom Donaly wrote:
> According to
> one of Cecil's sources, Balanis, the current distribution on such
> a wire resembles a triangle.

It only resembles a triangle. It is actually part of a
cosine waveform. From cos(80) to cos(90), the cosine
function is close to a straight line but it is *NOT*
a straight line. Assuming the current distribution is
a triangular is only an approximation with a known error.
The current distribution acutally remains a cosine function
but assuming a straight line simplifies the math and doesn't
cause an unacceptably large error.

It is akin to the approximation that A = sin(A) when
A is very small. It is *ONLY* an approximation with limited
accuracy.

cos(80)=0.17365, cos(85)=0.08716, cos(90)=0

0.17365/2 = 0.08682 which is an error of 0.4% when one assumes
a triangular function.
--
73, Cecil http://www.qsl.net/w5dxp

2672. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 03:28:42 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <446be9ea$0$6141$39cecf19@news.twtelecom.net>
Source record: 59313

Dave wrote:

> yeah, i know, you guys are so busy fighting with each other that you can't
> see the forest for the trees. keep going, its still raining here and may be
> for a few more days yet!
>

Dave

You obviously haven't figured out who is "fighting" and who is "amused".

I'll give you a clue, the ones fighting are "C" and "Y" hihi.

tom
K0TAR

2673. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 03:30:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pTRag.28726$4L1.15199@newssvr11.news.prodigy.com>
Source record: 59315

w8ji@akorn.net wrote:
> I know anything Roy Lewallen agrees with, you disagree with.

Absolutely false. I'll bet they agree on 99% of technical
topics, e.g. ohm's law, Maxwell's equations, etc.
--
73, Cecil http://www.qsl.net/w5dxp

2674. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 03:32:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <BVRag.28727$4L1.717@newssvr11.news.prodigy.com>
Source record: 59316

Richard Clark wrote:
> Antennas as non-linear transmission lines have already been covered
> and have been part of the literature for quite some time.

Antennas are linear systems.
--
73, Cecil http://www.qsl.net/w5dxp

2675. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 03:44:58 UTC
From: Buck <not@this.time>
Message-ID: <25rn6257bt60lnnvtv4scrsl6flboj7pas@4ax.com>
Source record: 59317

On Wed, 17 May 2006 12:36:28 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>Hams are (or were) known to be honest, gentlemen and willing to share their
>ideas with others for advancement of our art. Looks like lately we have
>influx of "magicians" claiming to outperform real antennas with some
>miniatures. So far no winners!
>
>Good Luck.
>
Do you remember the antenna that came out in the middle to late 70's?
It was a dipole antenna with a specially designed cobra-head that
tuned it to any HF frequency. The SWR was virtually flat across all
bands from 160 meters to 10 meters regardless of the length of wire.
No tuner needed! Several companies bought one and tried to
disassemble them. The result was always a mess of broken parts.
x-rays were fooled by the number of parts, but someone was successful
in taking one apart and yet leaving the actual connected parts of the
antenna together. It turns out the antenna was nothing but a 50 ohm
resister surrounded by many useless, broken parts frozen in the epoxy
used to seal and hide the true design of the antenna.

I wonder if that genius is still alive and well?

--
73 for now
Buck
N4PGW

2676. Re: 100 Ohm Twin Lead

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 03:46:50 UTC
From: Buck <not@this.time>
Message-ID: <ggrn621u2ece55bqerc7al5iqqdqtb6nl7@4ax.com>
Source record: 59318

On Wed, 17 May 2006 12:13:57 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>It didn't. It changed to 56.25 ohms. The load is 100 ohms
>and the Z0 is 75 ohms so the SWR is 1.33:1 at the current
>minimum/voltage maximum point. To find the impedance 1/4WL
>away, divide Z0 by SWR, 75/1.33 = 56.25 ohms.

Thanks, I understand how that works now.

--
73 for now
Buck
N4PGW

2677. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 03:48:26 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <q8Sag.1362$252.537@fe12.lga>
Source record: 59319

"Buck" <not@this.time> wrote in message
news:25rn6257bt60lnnvtv4scrsl6flboj7pas@4ax.com...
> On Wed, 17 May 2006 12:36:28 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>
>>Hams are (or were) known to be honest, gentlemen and willing to share
>>their
>>ideas with others for advancement of our art. Looks like lately we have
>>influx of "magicians" claiming to outperform real antennas with some
>>miniatures. So far no winners!
>>
>>Good Luck.
>>
> Do you remember the antenna that came out in the middle to late 70's?
> It was a dipole antenna with a specially designed cobra-head that
> tuned it to any HF frequency. The SWR was virtually flat across all
> bands from 160 meters to 10 meters regardless of the length of wire.
> No tuner needed! Several companies bought one and tried to
> disassemble them. The result was always a mess of broken parts.
> x-rays were fooled by the number of parts, but someone was successful
> in taking one apart and yet leaving the actual connected parts of the
> antenna together. It turns out the antenna was nothing but a 50 ohm
> resister surrounded by many useless, broken parts frozen in the epoxy
> used to seal and hide the true design of the antenna.
>
> I wonder if that genius is still alive and well?
> 73 for now
> Buck
> N4PGW

Yea, it was and believe still is MAXCOM magik flat antenna :-)
You can fool some people.....

Yuri

2678. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 03:49:24 UTC
From: Buck <not@this.time>
Message-ID: <bjrn62d9jfc7up95n8pauebip8dn4lhqpf@4ax.com>
Source record: 59320

On Wed, 17 May 2006 13:30:31 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Mike Coslo wrote:
>> It is hard to look at a radiation pattern, conclude that the
>> take-off angle is the only angle of radiation, and then blame it on
>> EZNEC!
>
>I knew a ham in Chandler, AZ who would adjust not only
>the direction but the height of his beam for maximum signal.
>I assume by adjusting the height, he was changing his TOA.

I have heard of many hams stacking beams vertically to get that
earlier signal on one beam, and later in the day, the other beam gets
the stronger signal. Together, they still amplify the signal, but
sometimes one does much better than others at the TOA.

--
73 for now
Buck
N4PGW

2679. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 03:52:20 UTC
From: Buck <not@this.time>
Message-ID: <mqrn62h637oi0jjq158cprq8d8atj4mkso@4ax.com>
Source record: 59321

On Wed, 17 May 2006 17:10:00 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Yuri Blanarovich wrote:
>> I have seen situations when signals to Europe were coming under low angle
>> and in the same direction, signals to deep Asia were coming under higher
>> angle at the same time.
>
>Seems to me a rotatable dipole with the ability to also
>rotate from horizontal to vertical would be a good thing
>to have.

or tie two together in a vertical/horizontal phased array?
--
73 for now
Buck
N4PGW

2680. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 03:57:42 UTC
From: Buck <not@this.time>
Message-ID: <7trn62l3qc8b2rkgq5dq68n75qeiug3cri@4ax.com>
Source record: 59322

On Wed, 17 May 2006 20:15:24 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>How does Eznec know the number of hops? How does Eznec know which
>angle is correct? How does Eznec know the height of the reflecting
>layers? How does Eznec know the distances at which the radio wave
>returns to Earth to be re-reflected?
>
>Eznec doesn't know. And neither does the radio operator unless he
>estimates everything AFTER the event.
>
>Radio waves follow paths dictated by trigonometry and geometry and are
>entirely independent of the idiosyncrasies of radio antennas.
>----
>Reg.
>

Reg, what were you drinking when you wrote this? EZNEC doesn't deal
at all with the atmosphere, it deals with the antenna. If the antenna
has a stronger lobe at 10 degrees in some given direction, EZNEC plots
it, but that doesn't mean the signal will come from that direction.

I have done only a little modeling with the ARRL version and the newer
free one. EZNEC plots the angles of the antenna from a horizontal and
vertical standpoint. Some antennas create single or double, primary
lobes, and others have more primary (highest gain) lobes. However,
when you change the elevation angle that you are watching, those
primary lobes may change to a different angle.

--
73 for now
Buck
N4PGW

2681. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 05:32:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <1k1o621hg5n9l78mcqu9smlahgvbtn6fgh@4ax.com>
Source record: 59323

On Thu, 18 May 2006 03:32:49 GMT, Cecil Moore <mycall@hotmail.com>
wrote:
>Antennas are linear systems.
another list game, hmm?
Antennas are wires in the sky;
Antennas are fun;
Antennas are this,
...that,
...and,
...another.

2682. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 05:52:22 UTC
From: richardharrison@webtv.net
Message-ID: <23154-446C0B96-911@storefull-3254.bay.webtv.net>
Source record: 59325

Tom, W8JI wrote:
"This is an important issue because the myth about shields is embedded in amateur circles despite many clearly written engineering texts and very simple experiments that prove the concept of time-varying magnetic fields penetrating the shield."

Some of that poison reached the 2006 ARRL Handbook on page 13.18. Fig 13.26 says:
"Electrostatically-shielded loop for RDF. To prevent shielding of the loop from magnetic fields, leave the shield unconnected at one end."

Terman`s RDF loop should have better balance than ARRL`s because Terman`s shield gap is squarely in the center of the loop and not at one end. However, as long as the shield is broken preventing induced current from flowing around the shield, Lenz`s law will be thwarted and magnetic coupling to the coil under the shield will be obtained. Electric field coupling to the coil beneath the shield will be disallowed by the shield`s connection to ground wherever it occurs, though not as elegantly as when care is taken to get the best balance possible.

I`ve worked with such Faraday screens in my broadcasting career.

Best regards, Richard Harrison, KB5WZI

2683. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 05:57:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h12o62lemqdrjbou49algo5pj7rioq9sm2@4ax.com>
Source record: 59324

On Wed, 17 May 2006 10:19:39 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>It's still the same "1/2 inch copper water tubing (non ferrous
>material passing the magnetic field)."
>
>So, does that wire make the "shield" better, or worse?

Hmm, this one must've been experienced exactly as an existential
question about the infinite cosmos.

>Super-extra credit question:
>If we replaced the non ferrous material (same gap, no link) with (most
>have probably anticipated this) a ferrous material, does this allow
>near field region electrical field interference to pass un-impeded?

This one must never been experienced either. I've always wondered why
perfect academic set-ups like "non ferrous material" (as if it were
lossless) always appear in the context of a populist aw-shucks kind of
posting.

Sorry All,

But when such simple questions become imponderables of the century,
they merit Cecil's 5 forbidden words woven in. Of course, it makes
only the most strained of sense, but there's nothing to compete! ;-)

73's
Richard Clark, KB7QHC

p.s. as viewed through the bottom of a bottle of Dick's Working Man's
Brown Ale (Centralia, Washington)

2684. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 06:13:54 UTC
From: nm5k@wt.net
Message-ID: <1147932834.035597.104560@i39g2000cwa.googlegroups.com>
Source record: 59226

>Sooo, in shielded loop the shield is the antenna according to W8JI and
>worshippers. But you take the shield (W8JI antenna) away, now the wires are
>antenna, some say don't need no stinkin' shield and "antenna" to work as an
>antenna.

I don't know what a W8JI antenna is, except for those I've heard on
160m... :/
But I do know that I've tested various versions of both shielded and
unshielded
loops, and have never been able to tell a lick of difference as far as
close local
noise pickup. I spent a whole week testing that very thing. It's not
something I just
made up, or picked up from W8JI.

>Amazing how selective in reading and digestion of postings some people are.
>They tend to ignore the reality and description of it, they pick on
>selective "proof" of what they were taught and figered out.

Only my test results were used to come up with my conclusion. So I
guess
I taught myself. I've never built a shielded loop yet that was any
"quieter" to
local noise than any of my good unshielded loops. But my unshielded
loops
are well balanced. Were yours?

> So shield works as a electrostatic shield, if you guys like it or not, or
>refuse to admit.

I refuse to admit it, if I can't prove it. And I haven't been able to
prove it yet.
One thing...How in the heck is a solid shield going to filter one
source of RF,
and ignore another. In reality, it will shield *all* RF, unless I am
missing
something here. So the outer shield *must* be the antenna, unless the
sky is
now green. No RF is going to prevail past the outer skin depth of the
solid
shield. None. Nada...

>Sooo, antenna works without shield (not just my assertion), but when you
>insert it in the shield then shield becomes W8JI antenna.

It does? I'm sure if this is the case, it probably tunes 160m.... :/

So his shield,
>untuned becomes antenna, but my tuned and tunable inside the shield antenna
>is not the antenna? Makes as much sense as "there is equal current along the
>loading coil doesn't matter what", riiiiight?

If you say so....

>Let's stick to some reality in antennas.

Thats all I do. I've made a load of loops. I have a diamond loop 44
inches
per side right next to me. Almost is as tall as the ceiling... Heck, I
even
have tried using shielded loops as the coupling loop to unshielded
loops.
Works pretty well to maintain balance, but mine work just as well with
just
a simple unshielded coupling loop. Probably cuz my loops are very
symmetrical
and balanced naturally. The coax feedline itself is the only real issue
in my case,
and even it's not really very critical. I never saw any indication
that using a
shielded coupling loop made the loop quieter than not using one. Not
once.
Myself, I don't really like small loops for receiving on 160m. They are
good for
cutting the noise when working loud locals, but in my experience they
are
pretty ho-hum when receiving weak dx. For 160m, I would use the biggest
loop
I could manage. Probably outside to have enough room...
My loops are mainly for MW BC receiving, although the one next to me
tunes
500-2300 kc in two stages, by switching cap gangs. I can go LW if I
tack on
more fixed caps. The real value of small loops are not the "quiet", or
the s/n
or whatever. It's the nulls... But nulls have much more value in the BC
band,
than they do on 160m unless maybe you have a noise source in the area
you wanna null out. Thats how a loop reduces noise. Using the nulls...
:/
I do have to agree with Tom. I think the "shielded loop" theory many
hams
adhere to is just another batch of wive tailery.. Along with grounds to
cure
antenna/feedline problems, sticking coax ends in bottles hoping to
thwart
lightning, etc... And I've never once talked to Tom about small loops.
It's all my idea to shun this "shield=quiet" theory, not W8JI's.
MK

2685. Les plus belles jeunes filles du web

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 10:04:38 UTC
From: mathilda@canadaweb.net
Message-ID: <446c46b5$0$21301$8fcfb975@news.wanadoo.fr>
Source record: 59227
Body handling: HTML body converted to readable text

[No readable article body recovered]

2686. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 11:33:34 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <-q2dnUiyHdwSxvHZnZ2dnUVZ_vOdnZ2d@adelphia.com>
Source record: 59228

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> I know anything Roy Lewallen agrees with, you disagree with.
>
>
> Absolutely false. I'll bet they agree on 99% of technical
> topics, e.g. ohm's law, Maxwell's equations, etc.

Just like arguing whether Coke or Pepsi tastes best. The closer the product, the worse the arguing...

- 73 de Mike KB3EIA -

2687. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 11:44:52 UTC
From: Buck <not@this.time>
Message-ID: <b1no62d7a39lc8qku7s0in441tklab8973@4ax.com>
Source record: 59229

On Wed, 17 May 2006 23:48:26 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>
>Yea, it was and believe still is MAXCOM magik flat antenna :-)
>You can fool some people.....
>
>Yuri
>
It looks like he is now selling it as an antenna tuner.

Not accounting for his marketing technique, his idea wasn't all bad.
I found a 100 ohm, 300 watt resistor when I worked for George at
Disc-Cap electronics, a surplus sales company. It was heavy, but I
wired it across the two legs of an 80 meter dipole and got less than
1.5:1 anywhere I tuned the transmitter. It was lossy compared to a
resonant antenna, but it worked ok. I would love to have one again.
In an emergency, you can't get the wrong length of antenna wire, even
no wire gave a good match and would probably radiate 100 watts at
least as well as some QRP stations ;). Of course one needs to HEAR the
station they are talking with sometimes....

I would love to compare the results of using that with the t2fd.

--
73 for now
Buck
N4PGW

2688. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 12:05:52 UTC
From: whinyslit_lloydie@yahoo.com
Message-ID: <1147953952.761423.276830@j55g2000cwa.googlegroups.com>
Source record: 59230
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
assraped by an old freind wrote:
> Noon-Air wrote:
> > "N0VFP" <lloyd_n0vfp@yahoo.com> wrote in message
> > news:1147880180.587485.304520@j55g2000cwa.googlegroups.com...
> > >
> > > assraped by an old freind wrote:
> > >> Noon-Air wrote:
> > >> > <X-Post canceled>
>
> > >> > Welcome to my killfile
> > >
> > > SPANK!
> > >
> > >> be preapred to do that a lot
> > > Yeah, Markie is going to spam some more!
> > >
> > Before he does, he might want to review his ISP TOS

Yes, he certainly needs to have somebody read it to him.
He's spams every day.

> I might need if I were going to spam at all
> but since i am just responding to a madmans cyber harrasmentI need not
> wory

You are spamming, stupid.

--
Markie Morgan, kb9rqz, proves his illiteracy when he slobbered
in Message-ID: <1147884138.829873.289830@j33g2000cwa.googlegroups.com>:
"Icertainly can so I am not ileiterate"
```

2689. HF broadcasting antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 13:47:06 UTC
From: sipa <hgkrm@yahoo.com>
Message-ID: <e4htsl$ll6$1@ss408.t-com.hr>
Source record: 59231
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

Greeetings!

First please excuse me for my bad english.
Can anyone help me with link for page with details about calculating HF broadcasting antennas.... (dimensions, input impedence, radiation pattern, radiation impedance, max power,...)

Link for calculating program will do too.

I nead it for college

Thanx, Ante

ante.petkovic@si.t-com.hr

--
PAZNJA! NEPRIJATELJ PRISLUSKUJE

2690. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 15:42:06 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1147966925.828695.186160@u72g2000cwu.googlegroups.com>
Source record: 59232

I would amend Cecil's statement to:
'We hope antennas are linear systems.'

A nonlinear antenna is a terrible beast indeed. It will mix every signal it receives with every other signal, creating a nasty mush of signals. On transmit it is not so bad, maybe generating harmonics and a wider signal than we'd like.

We've all heard stories of a poor antenna connection causing problems, or a nearby raingutter joint causing TV inteference. These are nonlinear antennas.

73,
Glenn AC7ZN

2691. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 16:48:52 UTC
From: richardharrison@webtv.net
Message-ID: <21360-446CA574-1135@storefull-3257.bay.webtv.net>
Source record: 59234

Mark, NM5K wrote:
"I refuse to admit it, if I can`t prove it."

A shield is extra work, weight, and cost but despite that, many are in use.

As electrons move along a conductor a magnetic field expands from some depth inside the conductor itself. The magnetic lines of force sweep outward from the conductor while inducing an emf in the conductor itself. The self induced emf opposes instantaneous change of current in the inductance of the conductor. This is the basis of Lenz`s law:
"In all cases of electromagnetic induction, induced electromotive force and resultant current are in such a direction as to oppose the effect producing them."

Skin effect prevents penetration of RF very deep into a good conductor. Skin effect makes RF coil shields impenetrable. Electric hields are shorted to ground by the conductive shield. Magnetic fields induce counter fields from the currents they induce on the surface of the shield.

A Faraday screen breaks the current path on the shield preventing the counter fields from being magneticly induced. Result is a shield that is penetrable by the magnetic field but impenetrable by the electric field. The electric field is still shorted to ground by its conductive path. Faraday screens are used because they work.

Best regards, Richard Harrison, KB5WZI

2692. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 16:51:33 UTC
From: Vito <vito@crosslink.net>
Message-ID: <446ca625$0$31271@dingus.crosslink.net>
Source record: 59233
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"CW" <s@earthlink.net> wrote
> "Vito" <vito@crosslink.net> wrote
> > Let's use proper nomenclature. There is little danger of CW going away.
.> > .... I'd use Tap Code - you know the "CW" with only dots,
> > I'm amazed at how few know this.
>
> Since, as you observed, so few people know it, what's the chances of it
> being of any use?
>
I'm sorry, I should have said "how few AMATEURS know this. It's common in
non-radio use.
```

2693. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 16:57:44 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1147971464.030262.29190@j33g2000cwa.googlegroups.com>
Source record: 59235
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Vito wrote:
> "CW" <s@earthlink.net> wrote
> > "Vito" <vito@crosslink.net> wrote
> > > Let's use proper nomenclature. There is little danger of CW going away.
> .> > .... I'd use Tap Code - you know the "CW" with only dots,
> > > I'm amazed at how few know this.
> >
> > Since, as you observed, so few people know it, what's the chances of it
> > being of any use?
> >
> I'm sorry, I should have said "how few AMATEURS know this. It's common in
> non-radio use.

Common in machine or human non-radio use?
```

2694. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 17:06:03 UTC
From: Vito <vito@crosslink.net>
Message-ID: <446ca98b$0$31271@dingus.crosslink.net>
Source record: 59236
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"jawod" <jawod@fuse.net> wrote in message news:4463FCBC.4090005@fuse.net...
> Vito wrote:.....
> > Simple! I'd use Tap Code
> >
> I don't see how this is any more efficient (indeed, it appears to be
> less efficient) than CW-Morse code. My understanding is that Morse
> wisely used the least complicated sequences for the most commonly used
> letters. I think this is also true of PSK31, but I could be wrong.
>
> Consider the letter "E": a single "dit" in Morse, but it becomes
> one "tap" followed by 5 "taps" in the above scheme. None too efficient,
> it seems to me.

Perhaps "efficient" is the wrong word.

In my experience, it is quite difficult to send distinguishable Morse dots and dashes without a key (YMMV). Doing so by keying a mic or touching wires together thus becomes very slow - slower even than tap code. Also, it takes considerable effort to learn Morse and even more practice to copy all the less than perfect fists out there. Thus the number of operators and potential listeners who can copy such a 'bad fist' are few now and are rapidly vanishing now that Morse is strictly a hobby mode. OTOH, everybody who read my post now knows tap code - which is common in prisons, mines and other places because anybody can copy it with little or no practice.

I'm not suggesting that anybody eschew Morse if they enjoy it - just that they stick tap code into the back of their minds for emergencies.

2695. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 17:44:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i8bp625118j7mds0o7ranlvrhu8vl68pm5@4ax.com>
Source record: 59237

On Thu, 18 May 2006 11:48:52 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>A Faraday screen breaks the current path on the shield preventing the
>counter fields from being magneticly induced. Result is a shield that is
>penetrable by the magnetic field but impenetrable by the electric field.
>The electric field is still shorted to ground by its conductive path.
>Faraday screens are used because they work.

Hi Richard, Yuri,

In regard to my last question that so stumped you two, there is absolutely nothing inherent in non-ferrous vs. ferrous materials that changes this one particular aspect of shielding. Both materials are conductive, and both are selected for their lowest conductivity (hence their lowest Ohmic loss). The only substantive difference is that a ferrous material offers the prospect of using a thinner covering for the same isolation. Above LF, this is hardly useful unless you are planning on using very thin foils. Art's selection of mylar films with conductive coatings is one such example that works with a conductive surface thickness in the 100s of microns.

The "shielded dipole" observes the one principle requirement of insuring that a break in continuity is maintained. Otherwise, the shorted turn snuffs the antenna for any design held within it. This prohibition in continuity is paramount to all designs and is driven by both magnetic as well as electric considerations, as in the RF field they are inextricably coupled.

To cut to the chase: there is no way to separate these fields and select one of them over the other. If you choose to run your arc welder within a loop's diameter of the antenna while also DXing; then it is the balance of the antenna design, not the shielding that will determine your success. Screw up the geometry of that gap, and you will hear as much hash as if the "shield" never existed.

For the standard single turn "shielded dipole," the arms of the dipole are the shield. There must be 10 million examples of this particular model on 1 million repeater installations world-wide. There are also tri-axial or twin-axial designs of the "shielded dipole" that wholly divorce themselves of the exterior shield. All such designs, to work effectively, exhibit a balanced configuration that is identical to the standard single turn. The balance is the only consideration at issue, and shielding is a means, but hardly a necessary ends to that achievement. As such, shielding is simply insurance and a brute force means to force balance through what in engineering terms is called

"swamping."

73's
Richard Clark, KB7QHC

2696. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 18:35:34 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3mcp62pih4dris998tg62cs877v9vfdf3u@4ax.com>
Source record: 59238

On 18 May 2006 08:42:06 -0700, glenn.b.dixon@gmail.com wrote:

>I would amend Cecil's statement to:
>'We hope antennas are linear systems.'
>
>A nonlinear antenna is a terrible beast indeed. It will mix every
>signal it receives with every other signal, creating a nasty mush of
>signals. On transmit it is not so bad, maybe generating harmonics and
>a wider signal than we'd like.
>
>We've all heard stories of a poor antenna connection causing problems,
>or a nearby raingutter joint causing TV inteference. These are
>nonlinear antennas.

Hi Glenn,

Cecil is being deliberately obtuse to the matter of linearity. In the game of describing an antenna as a transmission line, the non-linearity is compellingly obvious.

If you start with standard twin line, its characteristic Z is dominated by geometry and a ratio of wire diameter to wire separation. Pull that twin line apart to construct a V or a dipole, and the geometry necessarily forces a non-linearity into the picture.

Reggie also has considerable difficulty with this concept too as he prefers to switch to earth as the main arbiter of transmission line dynamics. Both seem to abandon the generator's view of a 50 to 70 Ohm load to replace it with their 600 Ohm concepts so as to artificially impose their need to see a linear load.

These 600 Ohm concepts are achieved only if the operator strains to fail most spectacularly. Few debates are won this way, but arguments successfully persist for hundreds of postings. Even then, these concepts do not answer the initial non-linearity that inhabits the system. Both the 50 to 70 to 600 Ohm prognostications are artifacts of a measurement at the terminal of the non-linear device.

The proof lies along the line, and this returns us to the underlying concept and argument about the distribution of current along the length of the quarter wave dipole's arms. This is stated in terms of the Cosine function. However, as with a deliberate failure forcing an erroneous general solution, the Cosine distribution is only found in the extreme (or the fevered dream). A 1mm wire strung 36 meters in outer space is certainly thin by engineering conventions, but it doesn't qualify as the current distribution misses the mark of

Cosinality by 5 or 6% (the distribution of a poor fit demonstrates the non-linearity).

Given Cecil's penchant for abstracting considerable error to general proofs of his crystalline logic, this may not seem much. However, the precision above is not outside of achievement, and it does demonstrate with simplicity that linearity does not reside in the transmission-line-as-antenna. Pulling this antenna down to earth to allow the boys their investment in the 600 Ohm concepts does nothing to recover linearity - if anything, it worsens it (albeit, by very slim margins). Clearly, the dominant factor in the linearity of the dipole's characteristic Z is with its own wire. This has been long reported in the literature (Schelkunoff).

Further, to anticipate this does not demonstrate any spurious emissions - this is only due to your (not yours, Glenn, your in the sense of the general reader, and our boys with their loss of investment) inability to resolve them.

This class of non-linearity falls under the heading of "scattering" and in these most mundane of applications would barely present spurious products higher than 70dB below excitation, and only several parts-per-million from the center frequency (called Stokes shift). When Cecil comes to the table armed with slop on the order of ï¿½59% allowable error, such products are swamped in stupidity.

73's
Richard Clark, KB7QHC

2697. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 19:54:22 UTC
From: jawod <jawod@fuse.net>
Message-ID: <446CD0EE.3060608@fuse.net>
Source record: 59239
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Vito wrote:
> "jawod" <jawod@fuse.net> wrote in message news:4463FCBC.4090005@fuse.net...
>
>>Vito wrote:.....
>>
>>>Simple! I'd use Tap Code
>>>
>>
>>I don't see how this is any more efficient (indeed, it appears to be
>>less efficient) than CW-Morse code. My understanding is that Morse
>>wisely used the least complicated sequences for the most commonly used
>>letters. I think this is also true of PSK31, but I could be wrong.
>>
>>Consider the letter "E": a single "dit" in Morse, but it becomes
>>one "tap" followed by 5 "taps" in the above scheme. None too efficient,
>>it seems to me.
>
>
> Perhaps "efficient" is the wrong word.
>
> In my experience, it is quite difficult to send distinguishable Morse dots and
> dashes without a key (YMMV). Doing so by keying a mic or touching wires
> together thus becomes very slow - slower even than tap code. Also, it takes
> considerable effort to learn Morse and even more practice to copy all the less
> than perfect fists out there. Thus the number of operators and potential
> listeners who can copy such a 'bad fist' are few now and are rapidly vanishing
> now that Morse is strictly a hobby mode. OTOH, everybody who read my post now
> knows tap code - which is common in prisons, mines and other places because
> anybody can copy it with little or no practice.
>
> I'm not suggesting that anybody eschew Morse if they enjoy it - just that they
> stick tap code into the back of their minds for emergencies.
>
>
Good point. It is true that the original Morse code was merely clicks
and spaces on wired telegraph systems, similar to the tap method you
suggest. I see the advantage that by tapping slowly, anyone who knows
the scheme can copy. This is also true of Morse, of course.

2698. Re: HF broadcasting antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 19:58:15 UTC
From: Frank Dresser <analogdial@worldnet.att.net>
Message-ID: <rl4bg.122838$eR6.84955@bgtnsc04-news.ops.worldnet.att.net>
Source record: 59240
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

"sipa" <hgkrm(izbrisi)@yahoo.com> wrote in message
news:e4htsl$ll6$1@ss408.t-com.hr...
> Greeetings!
>
> First please excuse me for my bad english.
> Can anyone help me with link for page with details about calculating HF
> broadcasting antennas.... (dimensions, input impedence, radiation pattern,
> radiation impedance, max power,...)
>
> Link for calculating program will do too.
>
> I nead it for college
>
> Thanx, Ante
>
> ante.petkovic@si.t-com.hr
>
> --
> PAZNJA! NEPRIJATELJ PRISLUSKUJE
>
>

Check out:

http://www.cebik.com/radio.html

Frank Dresser

2699. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 20:04:12 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <0r4bg.89354$dW3.61818@newssvr21.news.prodigy.com>
Source record: 59241

"Richard Clark" <kb7qhc@comcast.net> wrote:
> In the
> game of describing an antenna as a transmission line, the
> non-linearity is compellingly obvious.

A non-linear system would generate harmonics so where are
those harmonics?

> A 1mm wire strung 36 meters in
> outer space is certainly thin by engineering conventions, but it
> doesn't qualify as the current distribution misses the mark of
> Cosinality by 5 or 6% (the distribution of a poor fit demonstrates the
> non-linearity).

Nobody said it was a perfectly ideal cosine curve. You seem to have
a strange definition of non-linearity as anything that differs from the
ideal. By that definition, everything is non-linear (including your
definition).
The definition of non-linearity being used here is "discontinuous".
Exactly where does the current in an antenna become discontinuous?

Heaven forbid the cosine curve exhibit the same accuracy as a resistor.
Would you also assert that a 52 ohm resistor that is marked 50 ohms is
exhibiting non-linearity?
--
73, Cecil, W5DXP

2700. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 20:35:53 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <JU4bg.89361$dW3.76506@newssvr21.news.prodigy.com>
Source record: 59242

"Cecil Moore" <mycall@arrl.net> wrote:
> The definition of non-linearity being used here is "discontinuous".
> Exactly where does the current in an antenna become discontinuous?

For readers who don't understanding the meaning of "linear systems",
here is a tutorial:

http://doctord.dyndns.org:8000/courses/tutorials/Linear_Systems.htm
--
73, Cecil, W5DXP

2701. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 20:48:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q2np621tu4ob2gdl51bd6bmfrkmourek46@4ax.com>
Source record: 59243

On Thu, 18 May 2006 20:04:12 GMT, "Cecil Moore" <mycall@arrl.net>
wrote:
>A non-linear system would generate harmonics so where are
>those harmonics?

There's no need to repeat one post removed coverage so early.

2702. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 20:52:52 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1147985572.276884.234240@j55g2000cwa.googlegroups.com>
Source record: 59244

Richard,

Wow. You spent a lot of time on this. Thanks.

Let's abandon antennas and postulate a twin-lead vacuum-dielectric 100 ohm transmission line that is ideal in the respects we consider important (except loss). There may be (resistive) loss, but no coupling to outside sources or objects, no hysteresis, no electromagnetic radiation. The characteristic impedance is exactly 100 ohms real over our frequency of interest. The velocity factor, for convenience, is 0.5.

We feed it on one end with a sinewave generator whose impedance is matched to the line. On the other end we terminate the line with a floating load of arbitrary impedance. The only requirement of the load is that it be perfectly linear and can be described completely as a real and imaginary impedance at any given frequency of interest.

Would you consider this system linear? We are not talking antennas now...nothing is radiating.

I'm not sure I'm going to go anywhere with this, and I'm not setting a trap. I'm just curious what conditions would have to be set before you would consider a transmission line system linear (you are welcome to add any conditions I might have forgotten). By the way, if you want to discuss any really subtle effects such a Stokes shifting, I define linearity as obeying the law of superposition within a reasonable dynamic range, say 140 dB, which is about 20 dB better than the input dynamic range of our best HF receivers.

I understand you are in an argumentative mood with others in the group, but I am taking no sides (I do happen to like Cecil's motorbike...) and will try to keep things civil. If I go anywhere with this, I hope to explain it clearly enough and with enough supporting material that there will be no arguments. I am not a guru so don't expect anyone to believe anything on my word alone.

So what say you Richard? Do we have linearity?

73,
Glenn AC7ZN

2703. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 21:19:51 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l5op6218db80plfen11bfaddtj3g81erfh@4ax.com>
Source record: 59245

On 18 May 2006 13:52:52 -0700, glenn.b.dixon@gmail.com wrote:

>Wow. You spent a lot of time on this. Thanks.

Hi Glenn,

Most of this time has long preceded these posts (by as many years as
Reggie has been posting here).

>Would you consider this system linear?

Yes.

>I'm not sure I'm going to go anywhere with this, and I'm not setting a
>trap. I'm just curious what conditions would have to be set before you
>would consider a transmission line system linear (you are welcome to
>add any conditions I might have forgotten).

I see no reason to constrain an open-ended topic; your definition is
fairly self referential after all:
I define X as a linear system;
Is X linear?

What correspondence that follows may upset the apple-cart, but aside
from the velocity factor gaff (which bears no relation, yet, on
linearity), I have no dispute.

What could upset the apple cart? Power.

Power has the capacity to distort systems and introduce
non-linearities even in your simple example. If I were to expand upon
what you call the subtle effects (they were in my earlier discussion);
this would give rise to back-scattering which could power limit the
line (in other words, it could never deliver more than a baseline
value). The onset of this condition is, again, nothing anyone here
has ever experienced, and to even approach this limit in the lines you
have constructed would tax most sources.

Such topics that may appear to be new here, have been exhibited in
fiber optic transmission lines for quite a while now.

73's
Richard Clark, KB7QHC

2704. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 21:28:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <gYSdnYYO0PZVevHZnZ2dnUVZ8tydnZ2d@bt.com>
Source record: 59246

Glenn, can you understand whatever it is poor, demented Richard is
waffling about?

2705. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 22:15:48 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1147990548.201160.221880@i39g2000cwa.googlegroups.com>
Source record: 59247

Reg,

Thank heavens there is someone here who knows the Queen's English.

Glenn

2706. Re: HF broadcasting antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-18 22:46:22 UTC
From: David <rickets@knac.com>
Message-ID: <k4up629lqirc9o6c0c01ktvf92j6k1ligi@4ax.com>
Source record: 59248
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

On Thu, 18 May 2006 15:47:06 +0200, "sipa" <hgkrm(izbrisi)@yahoo.com>
wrote:

>Greeetings!
>
>First please excuse me for my bad english.
>Can anyone help me with link for page with details about calculating HF
>broadcasting antennas.... (dimensions, input impedence, radiation pattern,
>radiation impedance, max power,...)
>
>Link for calculating program will do too.
>
>I nead it for college
>
>Thanx, Ante
>
>ante.petkovic@si.t-com.hr

http://www.tcibr.com/NewFiles/hfbroadants.html

2707. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 00:01:58 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <446d0af6$0$6147$39cecf19@news.twtelecom.net>
Source record: 59249

Richard Clark wrote:

> On 18 May 2006 08:42:06 -0700, glenn.b.dixon@gmail.com wrote:
>
>
>>I would amend Cecil's statement to:
>>'We hope antennas are linear systems.'
>>
>>A nonlinear antenna is a terrible beast indeed. It will mix every
>>signal it receives with every other signal, creating a nasty mush of
>>signals. On transmit it is not so bad, maybe generating harmonics and
>>a wider signal than we'd like.
>>
>>We've all heard stories of a poor antenna connection causing problems,
>>or a nearby raingutter joint causing TV inteference. These are
>>nonlinear antennas.
>
>
> Hi Glenn,
>
> Cecil is being deliberately obtuse to the matter of linearity. In the
> game of describing an antenna as a transmission line, the
> non-linearity is compellingly obvious.
>
> If you start with standard twin line, its characteristic Z is
> dominated by geometry and a ratio of wire diameter to wire separation.
> Pull that twin line apart to construct a V or a dipole, and the
> geometry necessarily forces a non-linearity into the picture.
>
> Reggie also has considerable difficulty with this concept too as he
> prefers to switch to earth as the main arbiter of transmission line
> dynamics. Both seem to abandon the generator's view of a 50 to 70 Ohm
> load to replace it with their 600 Ohm concepts so as to artificially
> impose their need to see a linear load.
>
> These 600 Ohm concepts are achieved only if the operator strains to
> fail most spectacularly. Few debates are won this way, but arguments
> successfully persist for hundreds of postings. Even then, these
> concepts do not answer the initial non-linearity that inhabits the
> system. Both the 50 to 70 to 600 Ohm prognostications are artifacts
> of a measurement at the terminal of the non-linear device.
>
> The proof lies along the line, and this returns us to the underlying
> concept and argument about the distribution of current along the

> length of the quarter wave dipole's arms. This is stated in terms of
> the Cosine function. However, as with a deliberate failure forcing an
> erroneous general solution, the Cosine distribution is only found in
> the extreme (or the fevered dream). A 1mm wire strung 36 meters in
> outer space is certainly thin by engineering conventions, but it
> doesn't qualify as the current distribution misses the mark of
> Cosinality by 5 or 6% (the distribution of a poor fit demonstrates the
> non-linearity).
>
> Given Cecil's penchant for abstracting considerable error to general
> proofs of his crystalline logic, this may not seem much. However, the
> precision above is not outside of achievement, and it does demonstrate
> with simplicity that linearity does not reside in the
> transmission-line-as-antenna. Pulling this antenna down to earth to
> allow the boys their investment in the 600 Ohm concepts does nothing
> to recover linearity - if anything, it worsens it (albeit, by very
> slim margins). Clearly, the dominant factor in the linearity of the
> dipole's characteristic Z is with its own wire. This has been long
> reported in the literature (Schelkunoff).
>
> Further, to anticipate this does not demonstrate any spurious
> emissions - this is only due to your (not yours, Glenn, your in the
> sense of the general reader, and our boys with their loss of
> investment) inability to resolve them.
>
> This class of non-linearity falls under the heading of "scattering"
> and in these most mundane of applications would barely present
> spurious products higher than 70dB below excitation, and only several
> parts-per-million from the center frequency (called Stokes shift).
> When Cecil comes to the table armed with slop on the order of ï¿½59%
> allowable error, such products are swamped in stupidity.
>
> 73's
> Richard Clark, KB7QHC

Thanks a lot for this one, Richard.

And of course, Cecil has already ignored the important bits and state4d
that 6% is no big deal. Typical.

As I said earlier, the responses to Cecil are where the gold resides.

I had not heard of the Stokes shift, nor the scattering you mentioned.
I have some looking up and reading to do. Which, of course, Cecil does
not, since it's not a Xerox moment.

tom
K0TAR

2708. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 04:49:20 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <l7cbg.26995$QP4.23667@fed1read12>
Source record: 59250
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Dee Flint" <deeflint01@comcast.net> wrote in message
news:csWdnbwoz-tYb8DZ4p2dnA@comcast.com...

< snip >

> For someone like yourself, it is absolutely essential that you eliminate
any
> and all extra translation steps. The burst of sound should register
> directly as a letter. In other words, hear it as a letter and reflexively
> write a letter. Then it doesn't matter if you happen to know the actual
> number of dots and dashes.

Yup, I hear that often, which is why I've had modest success with Jerry
Ziliak tapes. He sends at a character speed of 21 WPM, so each letter
almost becomes a single sound. Although that hasn't helped me much, thanks
for the thought.

> There is always
> a sense of accomplishment in expanding your abilities in ham radio. For
> example, in the past couple of years, I've been exploring the digital
modes
> and VHF/UHF propagation.

Oh, yeah!!!! I am into packet and APRS, into building antennas for myself &
for the RACES stations and into teaching. Here in the West, we have
something called the Western Intertie Network System or "Win System"
http://www.winsystem.org/ which is loads of fun. It also has IRLP, so I've
chatted with guys all over the world with it.

I did HF PSK31 under the club license during FD a few years ago. Great fun.

I've became an ET in 1962 (USN) and liked it well enough to stick around for
21 years. I became an engineer in 1989 (thank you, GI Bill), so I know my
way around the 'trons. I've only been a ham since 1992.

2709. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 05:49:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <29lq62lil71ijqbtfesdhiks2imt6p80i2@4ax.com>
Source record: 59251

On Thu, 18 May 2006 19:01:58 -0500, Tom Ring <news0002@taring.org>
wrote:

>I had not heard of the Stokes shift, nor the scattering you mentioned.
>I have some looking up and reading to do. Which, of course, Cecil does
>not, since it's not a Xerox moment.

Hi Tom,

It is pretty exotic, it only relates to radiation, reflection,
refraction, heat, and conduction, topics that are alien to discussion
here in more than TV Guide English it appears. Other difficult
concepts include linearity, coherence, mixing, and gain.

Stokes shift is the change in frequency due to the non-linear response
of a media to excitation. Typically the excitation is a photon
interacting with a phonon with radiation scattering following.
Injecting an electron (current) can achieve the same end. The effect
of power clamping in fiber optic transmission lines is due to SBS
(Stimulated Brillouin Scattering) threshold. I've been working with
this (Stokes and Anti-Stokes Shift) for some 20 years, and it fails
easy access through a copier.

The mention came only response to questions of linear response to what
at first glance would be a rather pedestrian transmission line
definition, but Glenn appears to have followed the clown instead of
pursuing his own question - he warned me it may have been pointless.

SBS and SRS (Stimulated Raman Scattering) would be suitable search
engine terms (esp. SBS threshold), but I warn you, they lead to
remarkably dense work where only one link in 20 will be accessible.

73's
Richard Clark, KB7QHC

2710. Running wire close to HF transmit antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 06:06:08 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrne6qo2g.8u5.ben@saturn.home.ben.com>
Source record: 59252

Let's say I have a free-standing vertical HF antenna transmitting about 10wa, and I'd like to run wires to something at the tip. Say an anemometer, or a temperature sensor. What would be the best way to run the wire up the antenna? If the HF vertical is a pipe, is inside the best bet? If it's shielded wire next to a solid antenna, will that affect the radiation pattern of the antenna as a parasitic element? How much energy at the tip of the antenna will couple into the wire? If the wire is carrying low-speed digital data (eg for a 1-wire temperature sensor), how much isolation would it need (choke, AC couple, opto-isolate, etc) to avoid getting the HF into the digital signal?

Thanks for any insight!

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

2711. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 10:26:29 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1148034389.195497.233470@i40g2000cwc.googlegroups.com>
Source record: 59253

Richard,

Since we agree the transmission line setup is substantially linear, I'm not sure we have much to discuss.

I do not agree with you on antenna linearity, but that is another subject for another rainy weekend, and I'm not the right person to be discussing that anyway.

73,
Glenn

2712. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 11:17:06 UTC
From: Mike <vk6mo@iinet.net.au>
Message-ID: <446da937$0$31531$5a62ac22@per-qv1-newsreader-01.iinet.net.au>
Source record: 59254

Hi. How's about you guys going to Dayton.
I'm sure a Tag Fight could be arranged for you all.
Two Pin Falls, Two Submissions,or a KO to decide the winner.

Maybe if you all meet face to face, you will come to some common agreement,
or this thread wii continue ad nausium.

Regards Mike.

2713. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 12:05:36 UTC
From: Arie <4nec2@gmx.net>
Message-ID: <1148040336.402273.24250@u72g2000cwu.googlegroups.com>
Source record: 59255

> EZNEC knows sh*t about propagation. EZNEC and other antenna modeling
> software can calculate the radiation pattern of modeled (not real) antenna
> according to given ground parameters and antenna geometry. It gives you idea
> how the pattern looks, but not the where the signal goes after entering
> propagation media.

However, in collaboration with a propagation prediction program, it gives you helpfull insights about influence of the pattern on the propagation and about the take-off angle most likely needed for point to point contacts on a given day, time and/or frequency. If you don't mind a little studying, you could try MultiNec, NecWin+ or 4nec2 with the VOACAP predication software. About EZnec I am not quite sure. To include terrain influence in all this, you could take a look at HFTA.

Arie.

2714. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 12:19:41 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <446db7dd$0$6149$39cecf19@news.twtelecom.net>
Source record: 59256

Richard Clark wrote:

<snip>

> SBS and SRS (Stimulated Raman Scattering) would be suitable search
> engine terms (esp. SBS threshold), but I warn you, they lead to
> remarkably dense work where only one link in 20 will be accessible.
>
> 73's
> Richard Clark, KB7QHC

Thanks.

tom
K0TAR

2715. Re: Running wire close to HF transmit antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 12:36:48 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <126rev7aliu6r5a@corp.supernews.com>
Source record: 59257

Ben Jackson wrote:
> Let's say I have a free-standing vertical HF antenna transmitting about
> 10wa, and I'd like to run wires to something at the tip. Say an
> anemometer, or a temperature sensor. What would be the best way to run
> the wire up the antenna? If the HF vertical is a pipe, is inside the
> best bet? If it's shielded wire next to a solid antenna, will that
> affect the radiation pattern of the antenna as a parasitic element? How
> much energy at the tip of the antenna will couple into the wire? If the
> wire is carrying low-speed digital data (eg for a 1-wire temperature
> sensor), how much isolation would it need (choke, AC couple, opto-isolate,
> etc) to avoid getting the HF into the digital signal?
>
> Thanks for any insight!
>
Hello Ben,

If it were me I would find a way to attach it to my roof vents or
somewhere else for sure. I'm just real skittish about damaging or false
readings from my wxr station because of my rf. Gud luck to you.

Butch KF5DE

2716. Re: Models on a Hot Tin Roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 12:39:52 UTC
From: Arie <4nec2@gmx.net>
Message-ID: <1148042392.280067.271180@i39g2000cwa.googlegroups.com>
Source record: 59258

Hello Dan, if you don't mind some additional studying, depending on
on-board RAM memory or if you are very patience, you could try 4nec2.
This will enable you to run up to 11000 segments without further costs.
To automatically create a wire grid (using the equal-area rule) or even
using surface-patches, use the geometry-builder.

2717. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 12:40:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <e1jbg.89760$dW3.75661@newssvr21.news.prodigy.com>
Source record: 59259

Richard Clark wrote:
> Injecting an electron (current) can achieve the same end.

How accurate are your electron position and velocity
measurements?
--
73, Cecil http://www.qsl.net/w5dxp

2718. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 13:39:59 UTC
From: Vito <vito@crosslink.net>
Message-ID: <446dcabe$0$31914@dingus.crosslink.net>
Source record: 59260
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"John S." <hjsjms@cs.com> wrote
> Common in machine or human non-radio use?
>
Human non-radio, like mines and prisons.

2719. Re: Running wire close to HF transmit antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 13:54:01 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <q8v0k3-qcm.ln1@p400bob.personal.cox.net>
Source record: 59261

Hi Ben

Keeping on mind that the data rate going to/from the sensor is very low compared to the RF I *think* they will co-operate. Some thoughts though;

- Opto systems have the problem that you need a power supply for the remote end. Using optical fibre is even a more elegant idea than wires but has a high-ish setup cost. You could of course use a IR LED/optotransistor config but as stated the power supply becomes an issue.

- You could argue that infrequent TX RF on the antenna even if it affects the sensor (data) can be ignored . This of course depends on what you are using the weather data for.

- If the weather data is a DC/AF level only you can allow RF onto the connection wire. Dont bother to try isolating it from the antenna at all. Dont even think of using shielded/coax. This way the effect on the antenna RF use will be small(er). You could get away with a choke/LPF or two at the antenna base, perhaps even with the use of coaxial stubs. (I'd start with a 1/4 wave open coaxial stub between each wire and antenna metalwork ground (ie where the antenna feed coax joins, then a other two further down)) Running the wire on the inside would of course be best for aesthetic and weather damage considerations.

- I'd say the effect of a base decoupled wire on the antenna would be neglible next to that of the aneometer or any box at the antenna tip. You would be capacitively loading the antenna at the "worst" place. (assuming a current node like at the tip of a 1/4 wave) ie it would need a retune.

Cheers Bob VK2YQA

Ben Jackson wrote:
> Let's say I have a free-standing vertical HF antenna transmitting about
> 10wa, and I'd like to run wires to something at the tip.

2720. Re: Running wire close to HF transmit antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 14:24:35 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148048675.923399.72440@y43g2000cwc.googlegroups.com>
Source record: 59262

Is this a multiband antenna? If so, I'd worry about the wire coupling different parts of the antenna to each other differently and requiring retuning at best, making it impossible to get a match at worst.

If it's a single band vertical, or at least just a single pipe without traps then inside is the best bet. What you probably want to do is put an RF choke both at the top and bottom.

Actually, I would suggest NOT putting the sensor at the top of a vertical, but rather put it a few feet from the top. The tip of the antenna is a high voltage point, and the top choke will be much more effective if it's at a lower voltage point where some current is flowing.

Run the wires up inside, use twisted pair, put a hole in the side of the antenna at a few feet from the top and attach an insulating rod sticking out sideways from that point. Put a good choke on the wires where they exit the antenna element both at the hole near the top and at the bottom of the element.

If it's a trapped vertical or something you'll have to worry about the extra coupling between antenna segments due to the wire.

If you're only running 10 watts (I think you said), I doubt you'll have to worry too much about arcing and so forth in the trapped situation, but it will probably detune the antenna quite a bit even if you run it inside.

73,
Dan
N3OX

2721. Re: Running wire close to HF transmit antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 14:27:23 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148048843.169432.134680@u72g2000cwu.googlegroups.com>
Source record: 59263

Oh and I like the fiber optic idea too... how about a solar + batteries
power supply for the anemometer...

hehe... probably too complicated ....

I do have some feet of optical fiber that was pulled from some old
piece of lab junk and I'm saving it for something like that but I
haven't really thought of anything yet.

73,
Dan

2722. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 15:08:11 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <vblbg.78573$H71.32912@newssvr13.news.prodigy.com>
Source record: 59264

Richard Clark wrote:
> On Thu, 18 May 2006 19:01:58 -0500, Tom Ring <news0002@taring.org>
> wrote:
>
>
>>I had not heard of the Stokes shift, nor the scattering you mentioned.
>>I have some looking up and reading to do. Which, of course, Cecil does
>>not, since it's not a Xerox moment.
>
>
> Hi Tom,
>
> It is pretty exotic, it only relates to radiation, reflection,
> refraction, heat, and conduction, topics that are alien to discussion
> here in more than TV Guide English it appears. Other difficult
> concepts include linearity, coherence, mixing, and gain.
>
> Stokes shift is the change in frequency due to the non-linear response
> of a media to excitation. Typically the excitation is a photon
> interacting with a phonon with radiation scattering following.
> Injecting an electron (current) can achieve the same end. The effect
> of power clamping in fiber optic transmission lines is due to SBS
> (Stimulated Brillouin Scattering) threshold. I've been working with
> this (Stokes and Anti-Stokes Shift) for some 20 years, and it fails
> easy access through a copier.
>
> The mention came only response to questions of linear response to what
> at first glance would be a rather pedestrian transmission line
> definition, but Glenn appears to have followed the clown instead of
> pursuing his own question - he warned me it may have been pointless.
>
> SBS and SRS (Stimulated Raman Scattering) would be suitable search
> engine terms (esp. SBS threshold), but I warn you, they lead to
> remarkably dense work where only one link in 20 will be accessible.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
Stokes' law and the Raman effect can be found in
physics texts dealing with quantum mechanics. Georg Joos, in
his book _Theoretical Physics_ deals with such things. The reading
is dense but the underlying concepts aren't too difficult. The
difficulty might lie in understanding how they apply to this

discussion.
73,
Tom Donaly, KA6RUH

2723. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 15:36:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0bpr62pdua5b09mn0cpm1vjsds6fvkinih@4ax.com>
Source record: 59265

On 19 May 2006 03:26:29 -0700, glenn.b.dixon@gmail.com wrote:

>I do not agree with you on antenna linearity, but that is another
>subject for another rainy weekend, and I'm not the right person to be
>discussing that anyway.

Hi Glenn,

By this very post you are discussing it.

Who, in your estimation, does qualify to discuss it? Despite all
outward appearances (and certainly the troll inspired name of the
topic), this is NOT about one-upmanship competition.

73's
Richard Clark, KB7QHC

2724. Re: Running wire close to HF transmit antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 15:53:39 UTC
From: richardharrison@webtv.net
Message-ID: <23154-446DEA03-1125@storefull-3254.bay.webtv.net>
Source record: 59266

Ben Jackson wrote:
"Let`s say I have a free-standing vertical HF antenna about 10 wa, and I`d like to run wires to something at the tip."

No problem.

All the stations I`ve worked in, medium wave and shortwave, had lighted towers. Some also used the towers to support other antennas and devices. Medium wave towers have sampling loops bolted to them for remote current and phase indications.

It`s dead simple. Conduit and coax are used to protect wires to devices and other antennas. Conduit and coax are firmly connected, top and bottom, at least, to the tower to shift most of the lightning to the lower-inductance tower.

At the bottom across the base insulator, coax is coiled to create a reactance at least 10x the feedpoint impedance of the tower. Similarly, each of the other wires running up the tower for illumination or other purposes is broken at the base for a tower-lighting choke (or Austin transformer) to isolate the RF and lightning. It works like a charm.

Best regards, Richard Harrison, KB5WZI

2725. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 16:25:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pjrr62phf8sehp8pchlm8i480escjc93e6@4ax.com>
Source record: 59267

On Fri, 19 May 2006 15:08:11 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

> Stokes' law and the Raman effect can be found in
>physics texts dealing with quantum mechanics. Georg Joos, in
>his book _Theoretical Physics_ deals with such things. The reading
>is dense but the underlying concepts aren't too difficult. The
>difficulty might lie in understanding how they apply to this
>discussion.

Hi Tom,

Certainly Joos would give some entry into the field, but finding work as accessible outside of a bookstore or library (in other words, through a search engine) makes for drinking out of a fire hose to quench a sip's worth of thirst.

Insofar as HOW this applies, I've spoken to that and Tom shows interest. That alone goes beyond the typical churning that passes for discussion. The point is that these underlying concepts are fairly simple as you imply and they are certainly not remote from the usual topics of consideration here. What they lack is specifics that relate to our common applications, and there too I've offered discussion. However, few seem inspired to travel those paths and that fault can hardly be laid at my doorstep.

73's
Richard Clark, KB7QHC

2726. New program - HELIX_2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 17:04:11 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <98GdnZBjZIOaYfDZRVnysg@bt.com>
Source record: 59268

Short helically-wound monopole antennas.

Enter helical height, diameter and frequency - calculate number of
turns and wire gauge for 1/4-wave resonance. Plus efficiency and
other characteristics.

Download program HELIX_2 from website below. 45 kilo-bytes.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

2727. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 17:14:30 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1148058870.661052.17230@j73g2000cwa.googlegroups.com>
Source record: 59269

Richard,

>>Who, in your estimation, does qualify to discuss it?

I would like to hear from someone who has actually measured the linearity of a simple antenna. I have not done this, so would only be one guy with an opinion. Plenty of us around.

By 'simple antenna' I mean an antenna such as a wire dipole without traps, baluns or other things that could degrade linearity. Since the linearity of antenna systems in general is in question, the simplest setup that answers the question would be best.

In the absence of measurement, can anyone comment on the modelling software? Does it assume and model a linear system? If so, do we know of any substantial nonlinear departures from the modelling software?

Anyone?

73,
Glenn AC7ZN

2728. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 17:16:53 UTC
From: richardharrison@webtv.net
Message-ID: <21360-446DFD85-1304@storefull-3257.bay.webtv.net>
Source record: 59270

Richard Clark, KB7QHC wrote:
"Who. in your estimation, does qualify to discuss it?"

If it`s about antennas, I nominate Kraus. If it`s about mathematics, many marhematicians qualify.

In algebra, y = mx + b, (the point slope formula), is called linear because it is the graph of a straight line.

In the discussion of transmission lines and antennas, you must admit that a uniform transmission line enforces a unique characteristic impedance (a resistance) on energy traveling in either direction. A resistance is linear because Ohm`s law prevails. In free-space, everyone agrees the characteristic impedance is about 377 ohms (a resistance).

Kraus says on page 2 of his 1950 edition of "Antennas":
"Let the transmission line now be connected to a dipole antenna as in Fig.1-2. The dipole acts as an antenna because it launches a free-space wave. However, it may also be regarded as a section of transmission line (see Sec. 1-2). In addition, it exhibits many of the characteristics of a resonator, since energy reflected from the ends of the dipole gives rise to a standing wave on the antenna. Thus a single device, in this case the dipole, exhibits simutaneously properties characteristic of an antenna, transmission line, and a resonator.

Best regards, Richard Harrison, KB5WZI

2729. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 17:47:40 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0xnbg.78624$H71.77915@newssvr13.news.prodigy.com>
Source record: 59271

glenn.b.dixon@gmail.com wrote:
> By 'simple antenna' I mean an antenna such as a wire dipole without
> traps, baluns or other things that could degrade linearity.

Seems the easiest measurement of nonlinearity would be the
harmonics (if any) generated by the antenna that do not
appear in the source signal.
--
73, Cecil http://www.qsl.net/w5dxp

2730. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 18:02:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <au0s62hqnnkgjjuqg4bv3n0t14tk2moitd@4ax.com>
Source record: 59272

On 19 May 2006 10:14:30 -0700, glenn.b.dixon@gmail.com wrote:
>I would like to hear from someone who has actually measured the
>linearity of a simple antenna. I have not done this, so would only be
>one guy with an opinion. Plenty of us around.

Hi Glenn,

Then you have a point in that regard. Bench work is rarely offered here and when it is, we are lucky if it is accompanied with the particulars of measurement so that it could be assessed or re-performed. It took very many years between cfa antenna claims, and legitimate field work by cfa proponents to show that their claims were unsupported.

>By 'simple antenna' I mean an antenna such as a wire dipole without
>traps, baluns or other things that could degrade linearity. Since the
>linearity of antenna systems in general is in question, the simplest
>setup that answers the question would be best.

Well, a BalUn is one of those elements that would be welcome so as to enforce the simplicity you demand, and so as to not disturb what is being measured. The BalUn (more properly, a choke) for this purpose would be for isolating the antenna from the transmission line.

>In the absence of measurement, can anyone comment on the modelling
>software? Does it assume and model a linear system? If so, do we know
>of any substantial nonlinear departures from the modelling software?

The modelers using NEC generally obtain results that conform to observable phenomenon. The modelers are supposed to be neutral observers. In other words, the non-linearity shown by the lack of congruence to the Cosine curve is not a presumption of non-linearity by the modeler; it is merely reporting an analysis. It may be noted that this analysis has been supported by a combination of bench work and theory.

All of this is the long way of saying non-linearity has been demonstrated, that is has been measured, and that it has been long explained. There are no surprises here.

73's
Richard Clark, KB7QHC

2731. Re: Running wire close to HF transmit antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 18:22:40 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrne6s37g.pf6.ben@saturn.home.ben.com>
Source record: 59273

On 2006-05-19, n3ox.dan@gmail.com <n3ox.dan@gmail.com> wrote:
>
> Actually, I would suggest NOT putting the sensor at the top of a
> vertical, but rather put it a few feet from the top.

Actually, for temperature, that might be the best idea yet. I could run the wires entirely inside, stop somewhere away from the top, and even disconnect the sensor with a PTT-triggered relay. The application is a beacon, so the transmit will be very intermittant anyway. I'd like to keep the entire antenna enclosed in PVC, with nothing hanging on the side, which is what got me thinking about INside.

Thanks for all the replies.

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

2732. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 18:30:15 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <NeadnThuMpMqk_PZnZ2dnUVZ_uWdnZ2d@comcast.com>
Source record: 59274

I use a "multi-band center fed doublet" for 80 through 10 meters. It is fed with 600 ohm open wire tuned feeders. Feeder length is just enough to get from the tuner to the antenna <G>, about 180 feet. The tuner/balun are bonded together and connected to electrical neutral.

No RF in the shack on 80 through 10. Well that's not really true. I'm sitting in the near field; but, I don't have RF hotspots on anything in the station at 1KW.

dale.j. wrote:

> What is the correct way to determine the non-resonant feedline length of
> a multiband doublet using 450 ohm open wire.
>
> tnx
> Dale
>

2733. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 18:32:32 UTC
From: Dave <noone@nowhere.com>
Message-ID: <gL2dnZWMpcrUkvPZRVn-gg@crocker.com>
Source record: 59275

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:0bpr62pdua5b09mn0cpm1vjsds6fvkinih@4ax.com...
> On 19 May 2006 03:26:29 -0700, glenn.b.dixon@gmail.com wrote:
>
>>I do not agree with you on antenna linearity, but that is another
>>subject for another rainy weekend, and I'm not the right person to be
>>discussing that anyway.
>
> Hi Glenn,
>
> By this very post you are discussing it.
>
> Who, in your estimation, does qualify to discuss it? Despite all
> outward appearances (and certainly the troll inspired name of the
> topic), this is NOT about one-upmanship competition.
>
> 73's
> Richard Clark, KB7QHC

don't you call me a troll... i just set the stage with an aptly named thread
to get things started for my own amusement... wait a minute, maybe that
does make me a troll! but at least i was open about my motives, and boy am
i enjoying it.... especially since its still raining! maybe you guys can
keep going through this weekend???

2734. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 18:45:19 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <3nobg.29166$4L1.25712@newssvr11.news.prodigy.com>
Source record: 59176

glenn.b.dixon@gmail.com wrote:
> Richard,
>
>
>>>Who, in your estimation, does qualify to discuss it?
>
>
> I would like to hear from someone who has actually measured the
> linearity of a simple antenna. I have not done this, so would only be
> one guy with an opinion. Plenty of us around.
>
> By 'simple antenna' I mean an antenna such as a wire dipole without
> traps, baluns or other things that could degrade linearity. Since the
> linearity of antenna systems in general is in question, the simplest
> setup that answers the question would be best.
>
> In the absence of measurement, can anyone comment on the modelling
> software? Does it assume and model a linear system? If so, do we know
> of any substantial nonlinear departures from the modelling software?
>
> Anyone?
>
> 73,
> Glenn AC7ZN
>

In order to measure something, you have to define what it is, first.
Cecil seems to think that in order for a simple dipole to be linear,
the current magnitude measured along its length has to be sinusoidal
in shape. Actually, though, I have it wrong. What he believes is that
since he can't detect any harmonics emanating from a sinusoidally
fed dipole, the current along its length must be a sinusoid. Actually,
it's supposed to be impossible to represent the current distribution
along a dipole using simple mathematical formulas because integral
equations have to be solved that are impervious to any solution
other than numerical approximation. That's why we need the various forms
of NEC. Cecil is wrong for the reason I've given in another post, and,
for reasons enumerated by Richard Clark. That won't stop the flow of
bellicose posts from him, though.
73,
Tom Donaly, KA6RUH

2735. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 18:46:58 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Coobg.29167$4L1.28394@newssvr11.news.prodigy.com>
Source record: 59177

Cecil Moore wrote:

> glenn.b.dixon@gmail.com wrote:
>
>> By 'simple antenna' I mean an antenna such as a wire dipole without
>> traps, baluns or other things that could degrade linearity.
>
>
> Seems the easiest measurement of nonlinearity would be the
> harmonics (if any) generated by the antenna that do not
> appear in the source signal.

Which wouldn't tell you a single thing about the current
distribution along the length of the dipole.
73,
Tom Donaly, KA6RUH

2736. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 19:01:23 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <7Cobg.29178$4L1.28624@newssvr11.news.prodigy.com>
Source record: 59178

Richard Clark wrote:

> On Fri, 19 May 2006 15:08:11 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>> Stokes' law and the Raman effect can be found in
>>physics texts dealing with quantum mechanics. Georg Joos, in
>>his book _Theoretical Physics_ deals with such things. The reading
>>is dense but the underlying concepts aren't too difficult. The
>>difficulty might lie in understanding how they apply to this
>>discussion.
>
>
> Hi Tom,
>
> Certainly Joos would give some entry into the field, but finding work
> as accessible outside of a bookstore or library (in other words,
> through a search engine) makes for drinking out of a fire hose to
> quench a sip's worth of thirst.
>
> Insofar as HOW this applies, I've spoken to that and Tom shows
> interest. That alone goes beyond the typical churning that passes for
> discussion. The point is that these underlying concepts are fairly
> simple as you imply and they are certainly not remote from the usual
> topics of consideration here. What they lack is specifics that relate
> to our common applications, and there too I've offered discussion.
> However, few seem inspired to travel those paths and that fault can
> hardly be laid at my doorstep.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
I didn't intend any criticism. People like Cecil, with
home-grown theories, don't ever seem to want things considered in
depth. That's understandable from a psychological standpoint, but
it isn't any help to the rest of us when some of the things the theory
ignores become significant. In the case of antennas, practically
everything is significant.
73,
Tom Donaly, KA6RUH

2737. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 19:07:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <tpKdnS-VEu3jhfPZRVnysw@bt.com>
Source record: 59179

> Reg,
>
> Thank heavens there is someone here who knows the Queen's English.
>
> Glenn

==
The trouble with Richard is that he wraps everything up in
Shakespearian prose, verse and poetry. The sonnets. Queen Elizabeth
the First's language.

Reg.

2738. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 19:23:21 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vi6s62deh5s0nuq4pueu78rp4b08b5hvmr@4ax.com>
Source record: 59181

On Fri, 19 May 2006 19:01:23 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>In the case of antennas, practically everything is significant.

Les Mots Juste ;-)

2739. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 19:24:07 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <446e1b59$0$1004$39cecf19@news.twtelecom.net>
Source record: 59180

Richard Clark wrote:

> On Fri, 19 May 2006 15:08:11 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>> Stokes' law and the Raman effect can be found in
>>physics texts dealing with quantum mechanics. Georg Joos, in
>>his book _Theoretical Physics_ deals with such things. The reading
>>is dense but the underlying concepts aren't too difficult. The
>>difficulty might lie in understanding how they apply to this
>>discussion.
>
>
> Hi Tom,
>
> Certainly Joos would give some entry into the field, but finding work
> as accessible outside of a bookstore or library (in other words,
> through a search engine) makes for drinking out of a fire hose to
> quench a sip's worth of thirst.
>
> Insofar as HOW this applies, I've spoken to that and Tom shows
> interest. That alone goes beyond the typical churning that passes for
> discussion. The point is that these underlying concepts are fairly
> simple as you imply and they are certainly not remote from the usual
> topics of consideration here. What they lack is specifics that relate
> to our common applications, and there too I've offered discussion.
> However, few seem inspired to travel those paths and that fault can
> hardly be laid at my doorstep.
>
> 73's
> Richard Clark, KB7QHC

And a web search produced a couple very good links out of the first 20.
One was a great discussion of problems in long optical fibers, and
some relatively simple ways to work around some of them, or at least to
mitigate them.

tom
K0TAR

2740. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 19:37:17 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <mq6s62hg11r6fsc4d1amfb0grfebjscvp4@4ax.com>
Source record: 59182

On Fri, 19 May 2006 14:24:07 -0500, Tom Ring <news0002@taring.org>
wrote:
>And a web search produced a couple very good links out of the first 20.
> One was a great discussion of problems in long optical fibers, and
>some relatively simple ways to work around some of them, or at least to
>mitigate them.

Hi Tom,

In my early days in this game (late 80s), I sought to turn lemons into quantum-aide. That is, I sought erbium doped fiber optics to amplify nanowatt fluorescence signals with 10 to 50 ï¿½S decay times. Not one of those off-the-shelf commodities, however; so I had to amplify in the conventional way with an PMT.

For those interested, long haul communications fiber optics (transoceanic grade) met with the same requirements for amplifiers placed along the length to maintain S+N/N. Erbium doped fibers were projected as a solution. You could pulse UV into the fiber to charge it, and a IR data pulse would be amplified, continuously along its length. The IR data pulse would be boosted by the previous charge of energy. This is an example of forward Raman scattering and is called Raman Amplification (which at the time would have been about 30dB and 10% efficient).

73's
Richard Clark, KB7QHC

2741. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 21:01:53 UTC
From: richardharrison@webtv.net
Message-ID: <23819-446E3241-1372@storefull-3252.bay.webtv.net>
Source record: 59183

Tom Donaly, KA6RUH wrote:
"Actually, it`s supposed to be impossible to represent the current distribution along a dipole using simple mathematical formulas because integral equations have to be solved that are impervious to any solution other than numerical approximation."

How many places do you attach to pi?

First, what is linearity? It is the absence of nonlinearity.

Millman and Seely wrote on page 525 of the 1951 edition of "Electronics" (one of my old textbooks):
"Because of this nonlinear characteristic of the dynamic curve over the operating range, the wave form of the output wave differs slightly from that of the grid-exciting-voltage waveshape. Distortion of this type is called "nonlinear" or "amplitude" distortion.."

All of the antennas I`ve worked with had no noticeable amplitude distortion. They caused no harmonics or mixing products.

On page 235 of Kraus` 1950 edition of "Antennas" he sets out to solve Hallen`s equation for current distribution. On page 239, Kraus writes:
"It is generally assumed that the current distribution of an infinitesimally thin antenna is sinusoidal, and that the phase is constant over a 1/2-wavelength interval, changing abruptly by 180-degrees between intervals."

You can take what Kraus says to the bank.

Best regards, Richard Harrison, KB5WZI

2742. Spark 2006

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 21:16:42 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <446e35bc$0$6155$39cecf19@news.twtelecom.net>
Source record: 59184

This is from the Yahoo Live Wire group. I thought some here might be interested in it.

tom
K0TAR

Message 8
From: "David H Hatch" n9zrt@arrl.net
Date: Wed May 17, 2006 5:26pm(PDT)
Subject: Spark gap - Marconi 2006

Hi Live-Wires,

With permission, I am posting the following regarding the Marconi 2006 event.

Dan W7OIL has informed the team leader that he is nearly ready with the passive receiver and adaptations for an INC.

So today, WI7B is happy to announce they have achieved spark in their 800 KHz rotary spark gap transmitter. They built it from a "Franken'd" Chevy V8 single point distributor and spark coil. With 7 VDC it generates a hefty 0.5 inch spark every 1/500 second (500 Hz rep rate).

I've attached photos of the setup and the spark gap, both un-energized and energized.

See the progress on the sparkgap here:

http://www.wireservices.com/n9zrt/Marconi-06/

Jim NY7T and W7OIL will be adding the LCR circuitry to the spark gap, then move it out the "ranch" to couple to a 375m quarter wave antenna.

The group has an STA from the FCC-OET to operate an 800 KHz spark gap transmitter. Callsign WC9XLG. They are legal.

2743. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 21:24:30 UTC
From: Dan Richardson <>
Message-ID: <omds62tu98bcko82349l381ir74l9p3ead@4ax.com>
Source record: 59185

On Fri, 19 May 2006 21:07:17 GMT, "The always Benevolent dbu."
<Relaxand@melthe/rose.comm> wrote:

>In article <NeadnThuMpMqk_PZnZ2dnUVZ_uWdnZ2d@comcast.com>,
> Dave <W1MCE@comcast.net> wrote:
>
>> I use a "multi-band center fed doublet" for 80 through 10 meters. It is
>> fed with 600 ohm open wire tuned feeders. Feeder length is just enough
>> to get from the tuner to the antenna <G>, about 180 feet. The
>> tuner/balun are bonded together and connected to electrical neutral.
>>
>> No RF in the shack on 80 through 10. Well that's not really true. I'm
>> sitting in the near field; but, I don't have RF hotspots on anything in
>> the station at 1KW.
>>
>
>Thanks Dave. I just reconfigured my feedline and shortened it up also
>re-doing the physical layout. I have used this setup, open wire feed
>with 126 ft center fed wire for years and have never had a RF feedback
>problem in the shack. I asked the question because in the process of
>reconfiguration I consulted several sources which illuminated
>inconsistencies regarding length. From the responses I received here
>there does not seem to be any agreement on length and my question was
>not answered, at least not to my satisfaction.
>
>Anyway so far I'm ok with my current setup.
>
>73
>Dale, K9VUJ
>

It seems to me that we need to remember that radiation coming from the
feed line is cause by common current. If the feed line is balanced (no
common mode current) there will be no radiation from the feed line
regardless of the line's impedance or the feed point impedance.

Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2744. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 21:44:38 UTC
From: Slow Code <email@no.spam>
Message-ID: <a%qbg.4173$x4.2437@newsread3.news.pas.earthlink.net>
Source record: 59186
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

N2EY@AOL.COM wrote in
news:1148005814.174874.234520@38g2000cwa.googlegroups.com:

> These are the numbers of current, unexpired
> amateur radio licenses held by individuals
> on the stated dates, and the percentage of
> the total number of active licenses that
> class contains:
>
> As of May 14, 2000:
>
> Novice - 49,329 (7.3%)
> Technician - 205,394 (30.4%)
> Technician Plus - 128,860 (19.1%)
> General - 112,677 (16.7%)
> Advanced - 99,782 (14.8%)
> Extra - 78,750 (11.7%)
>
> Total Tech/TechPlus - 334,254 (49.5%)
>
> Total General/Advanced/Extra - 291,209 (43.2%)
>
> Total all classes - 674,792
>
>
> As of May 15, 2006:
>
> Novice - 25,182 (3.8%) [decrease of 24,147]
> Technician - 280,160 (42.6%) [increase of 74,766]
> Technician Plus - 39,130 (6.0%) [decrease of 89,730]
> General - 133,240 (20.2%) [increase of 20,563]
> Advanced - 72,315 (11.0%) [decrease of 27,467]
> Extra - 108,005 (16.4%) [increase of 29,255]
>
> Total Tech/TechPlus - 319,290 (48.6%) [decrease of 14,964]
>
> Total General/Advanced/Extra - 313,560 (47.6%) [increase of 22,351]
>
> Total all classes - 658,032 (decrease of 16,760)

I predicted and warned you all this would happen, but none of you wouldn't
listen.

Good Hams upset over all the Lids and CB'er like behavior on the bands as a result of dumbing down license requirements are leaving the hobby. I can't say I blame them and I hate to see them go.

On the bright side, there's a lot more ham gear on eBay you can bid on.

sc

2745. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 21:44:49 UTC
From: Slow Code <email@no.spam>
Message-ID: <l%qbg.4178$x4.754@newsread3.news.pas.earthlink.net>
Source record: 59187
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Dan/W4NTI" <w4nti@mindNOSPAMATALLspring.com> wrote in
news:jnOag.3495$y4.724@newsread2.news.pas.earthlink.net:

>
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1147832357.964390.122730@i40g2000cwc.googlegroups.com...
>>
>> Dan/W4NTI wrote:
>>> "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
>>> news:38c8.gop.17.1@news.alt.net...
>>
>>> 4
>>
>> this is not a golfign NG dan I would expect you topay attention but you
>> insit on disappointing me
>>>
>>> Dan/W4NTI
>>
>
> Try a spell check you goofball. I don't give a damn if you are dyslexic
> or not. That does not preclude you using a spell checker.
>
> Dan/W4NTI

For a spell checker to work good you need to be reasonable close to the
word and he ain't even reasonably close.

sc

2746. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 21:48:38 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-D64251.16481519052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59189

In article <omds62tu98bcko82349l381ir74l9p3ead@4ax.com>,
Dan Richardson <> wrote:

> On Fri, 19 May 2006 21:07:17 GMT, "The always Benevolent dbu."
> <Relaxand@melthe/rose.comm> wrote:
>
> >In article <NeadnThuMpMqk_PZnZ2dnUVZ_uWdnZ2d@comcast.com>,
> > Dave <W1MCE@comcast.net> wrote:
> >
> >> I use a "multi-band center fed doublet" for 80 through 10 meters. It is
> >> fed with 600 ohm open wire tuned feeders. Feeder length is just enough
> >> to get from the tuner to the antenna <G>, about 180 feet. The
> >> tuner/balun are bonded together and connected to electrical neutral.
> >>
> >> No RF in the shack on 80 through 10. Well that's not really true. I'm
> >> sitting in the near field; but, I don't have RF hotspots on anything in
> >> the station at 1KW.
> >>
> >
> >Thanks Dave. I just reconfigured my feedline and shortened it up also
> >re-doing the physical layout. I have used this setup, open wire feed
> >with 126 ft center fed wire for years and have never had a RF feedback
> >problem in the shack. I asked the question because in the process of
> >reconfiguration I consulted several sources which illuminated
> >inconsistencies regarding length. From the responses I received here
> >there does not seem to be any agreement on length and my question was
> >not answered, at least not to my satisfaction.
> >
> >Anyway so far I'm ok with my current setup.
> >
> >73
> >Dale, K9VUJ
> >
>
> It seems to me that we need to remember that radiation coming from the
> feed line is cause by common current. If the feed line is balanced (no
> common mode current) there will be no radiation from the feed line
> regardless of the line's impedance or the feed point impedance.
>
> Danny, K6MHE
>
> In my many years I have come to a conclusion that one
> useless man is a shame, two is a law firm, and three
> or more is a congress. - John Adams

>
> email: k6mhe<at>arrl<dot>net
> http://www.k6mhe.com/

I think you have brought up a good point as to the balance of the
parallel wires which is self canceling.

Maybe I will be able to sleep once again tonight...

73
Dale

--
Email: dalej2@mac.com

2747. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 21:50:35 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <nkes62tjn2qsm98954fq7i40lapo93h5um@4ax.com>
Source record: 59188

On Fri, 19 May 2006 21:07:17 GMT, "The always Benevolent dbu."
<Relaxand@melthe/rose.comm> wrote:

>inconsistencies regarding length. From the responses I received here
>there does not seem to be any agreement on length and my question was
>not answered, at least not to my satisfaction.

That statement reflects your ability to comprehend what was written by
many, rather than what was written.

If you expected a specific length as implied by your question "What is
the correct way to determine the non-resonant feedline length of a
multiband doublet using 450 ohm open wire." then you have been
dissapointed.

The consistent answer (even if not always well expressed) was that
length is not particularly critical, though there may be some length /
frequency combinations (that are very dependent on your particular
implementation and equipment) that may challenge your ATU.

I go along with the advice to use a convenient length of feedline, and
if it is challenging to match up with the ATU, then lengthen the
feedline a little.

Your dissapointment is perhaps caused by your expectation of a
specific length.

Owen
--

2748. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 22:08:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tres62ddn4u0brvko368rln2jl31kmvutm@4ax.com>
Source record: 59190

On Fri, 19 May 2006 16:01:53 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>"Because of this nonlinear characteristic of the dynamic curve over the
>operating range, the wave form of the output wave differs slightly from
>that of the grid-exciting-voltage waveshape. Distortion of this type is
>called "nonlinear" or "amplitude" distortion.."

Hi Richard,

This harkens back to your observation about how many places in Pi.

How much distortion has to exist before you hear it? As this directly relates to your quoted selection, are we to believe that distortion does not exist if you cannot perceive it?

This gives a great range of flexibility to the word linear through the careful selection for tone-deaf judges.

Back in the late 40s, Bell labs experimented with human subjects' ability to discern distortion. Turns out that they could take quite a bit (10 to 15%) before they could faithfully call it noticeable. So, by these stricter standards (Cecil would allow 59% before ringing the alarm) no distortion exists below 10%.

>All of the antennas I`ve worked with had no noticeable amplitude
>distortion. They caused no harmonics or mixing products.

No noticeable "amplitude" distortion? In a world of possible distortions, does linearity boil down to just one metric? Are you asking us to believe you anticipated any antenna would be non-linear and purposely tested them all? Nah, this is wholly unreasonable.

Richard, I frankly doubt you looked for spurs that would have been 70dB down in the worst of circumstances. More overwhelming would be corroded joints swamping that pursuit.

>On page 235 of Kraus` 1950 edition of "Antennas" he sets out to solve
>Hallen`s equation for current distribution. On page 239, Kraus writes:
>"It is generally assumed that the current distribution of an
>infinitesimally thin antenna is sinusoidal, and that the phase is
>constant over a 1/2-wavelength interval, changing abruptly by
>180-degrees between intervals."
>
>You can take what Kraus says to the bank.

So is Kraus bankrupt by contrary evidence that presumes he meant his quote to be taken strictly? Even Kraus hedges with "assumed" and he

does not otherwise force the conclusion, does he? Why indeed would he for such a trivial topic is the more astute observation.

This entire line of argument (distortion) is wholly specious. This violates most analysis by demanding that a wavelength sizeable element conform to lumped expectations. The non-linearity is found along the entire length of the element, not at a point. The characteristic Z varies by simple geometrical observation - it doesn't take quantum mechanics to arrive at this obvious conclusion. The ONLY linear quarterwave antenna is a biconical dipole - that has been established since the 40s. Even the Cosine distribution is blatant evidence of non-linearity (try listening to Mozart with an amp that has a cosine gain curve). An antenna has to be huge (wavelengths) and close (far less than a wavelength) to the earth before any linearity begins to arise - this too is historic.

73's
Richard Clark, KB7QHC

2749. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 22:17:15 UTC
From: Ron <wa0kds@yahoo.com>
Message-ID: <446E4561.3090805@yahoo.com>
Source record: 59193
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

So how many Ham died within that 6 year period. Remember we are a OLDER
population.

Slow Code wrote:
> N2EY@AOL.COM wrote in
> news:1148005814.174874.234520@38g2000cwa.googlegroups.com:
>
>
>>These are the numbers of current, unexpired
>>amateur radio licenses held by individuals
>>on the stated dates, and the percentage of
>>the total number of active licenses that
>>class contains:
>>
>>As of May 14, 2000:
>>
>>Novice - 49,329 (7.3%)
>>Technician - 205,394 (30.4%)
>>Technician Plus - 128,860 (19.1%)
>>General - 112,677 (16.7%)
>>Advanced - 99,782 (14.8%)
>>Extra - 78,750 (11.7%)
>>
>>Total Tech/TechPlus - 334,254 (49.5%)
>>
>>Total General/Advanced/Extra - 291,209 (43.2%)
>>
>>Total all classes - 674,792
>>
>>
>>As of May 15, 2006:
>>
>>Novice - 25,182 (3.8%) [decrease of 24,147]
>>Technician - 280,160 (42.6%) [increase of 74,766]
>>Technician Plus - 39,130 (6.0%) [decrease of 89,730]
>>General - 133,240 (20.2%) [increase of 20,563]
>>Advanced - 72,315 (11.0%) [decrease of 27,467]
>>Extra - 108,005 (16.4%) [increase of 29,255]
>>
>>Total Tech/TechPlus - 319,290 (48.6%) [decrease of 14,964]
>>
>>Total General/Advanced/Extra - 313,560 (47.6%) [increase of 22,351]
>>

>>Total all classes - 658,032 (decrease of 16,760)
>
>
>
>
>
> I predicted and warned you all this would happen, but none of you wouldn't
> listen.
>
> Good Hams upset over all the Lids and CB'er like behavior on the bands as
> a result of dumbing down license requirements are leaving the hobby. I
> can't say I blame them and I hate to see them go.
>
> On the bright side, there's a lot more ham gear on eBay you can bid on.
>
> sc

2750. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 22:20:13 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1148077213.637475.161420@i39g2000cwa.googlegroups.com>
Source record: 59191
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

Slow Code wrote:
> N2EY@AOL.COM wrote in
> news:1148005814.174874.234520@38g2000cwa.googlegroups.com:
>

>
> I predicted and warned you all this would happen, but none of you wouldn't
> listen.
>
> Good Hams upset over all the Lids and CB'er like behavior on the bands as
> a result of dumbing down license requirements are leaving the hobby. I
> can't say I blame them and I hate to see them go.
no they are dying of old age with no new ones to replace them
>
> On the bright side, there's a lot more ham gear on eBay you can bid on.
>
> sc

2751. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 22:22:58 UTC
From: dplatt@radagast.org
Message-ID: <126sha2opvg86eb@corp.supernews.com>
Source record: 59192

In article <Relaxand-F52692.16065419052006@news-rdr-03.rdc-kc.rr.com>,
The always Benevolent dbu. <Relaxand@melthe/rose.comm> wrote:

>Thanks Dave. I just reconfigured my feedline and shortened it up also
>re-doing the physical layout. I have used this setup, open wire feed
>with 126 ft center fed wire for years and have never had a RF feedback
>problem in the shack. I asked the question because in the process of
>reconfiguration I consulted several sources which illuminated
>inconsistencies regarding length. From the responses I received here
>there does not seem to be any agreement on length and my question was
>not answered, at least not to my satisfaction.

Well, let me take a crack at it, if I may.

First-off: I don't think there's necessarily any single "right" length
of feedline, even for a single individual installation. There are
certainly a number of "wrong" lengths of feedline:

- The classic one - length is too short to reach the rig/transmatch

- Too long - feedline drapes on the ground, is looped around near
metallic objects, etc. - and there are excessive losses or shock
hazards

- End-of-feedline impedance on one or more bands is outside the range
which can be matched properly.

The first two sets of conditions are fairly easy to pin down. :-)

The third is, I think, the place where the interesting variables come
in. Transmatches aren't all equal, by any means, in the ranges of
impedances that they can match (and the matchable impedances don't
necessarily form a nice SWR-value circle on the Smith chart!), or the
losses in the tuner, or the amount of power that the tuner can handle
before it starts to suffer from arcing or balun overheating/saturation.

It's likely that in any given installation, there will be multiple
lengths of feedline which will allow a match on a particular set of
bands. The matches will probably vary in efficiency and Q. Which one
will be "best" is, to some extent, a value judgement by the installer
and will depend on how the station is going to be operated. For
example, if you spend most of your time operating on one or two bands,
you might choose a feedline length which allows efficient and fairly
low-Q transmatch settings, so that you don't have to adjust the match
as often (or as critically) when QSY'ing within a band.

Now... how to evaluate the possibilities. Here's one approach which might be worth trying - it's a bunch of work but should let you end up with some useful data.

[1] Grab a whole bunch of Smith chart blanks (or get some good Smith chart software, or some other software which lets you handle impedance transformations conveniently).

[2] Figure out the minimum and maximum lengths of feedline which would be physically acceptable in your installation... from the shortest which will reach the rig, to the longest which can conveniently be zig-zagged back and forth between feedpoint and rig. Convert these lengths to electrical length (i.e. divide by the feedline's velocity factor, if it's much less than 1.0).

[3] For each band, convert the minimum feedline length into wavelengths, modulo 1/2 wavelength (180 degrees). Also, calculate the difference between minimum and maximum feedline lengths in wavelengths. If it's more than 180 degrees, just call it 180.

[4] Determine the range of impedances that your transmatch can handle, on each band that you're interested in working. You _may_ be able to use whatever blanket marketing/spec statement the tuner manufacturer provides (e.g. matches any SWR < 10:1, "all impedances from 25 to 1000 ohms", etc.) but it wouldn't hurt to run some tests yourself. You may wish to rule out some impedances even if they're theoretically matchable - e.g. a T-match tuner can often produce a "match" to a near-short-circuit, but the losses in the tuner are so high that it's not worth the bother.

[5] For each band, plot the range of matchable impedances on a Smith chart which is normalized to the nominal impedance of your balanced feedline. Use one Smith chart per band to avoid confusion.

[6] Choose the length of your doublet, based on space available and/or desired pattern on one or more bands and/or lore and/or any other criteria you desire.

[7] For each band, use appropriate tables to determine the feedpoint impedance of the doublet on the band in question. You may wish to calculate several values when the band is fairly wide (e.g. 80 meters).

[8] Plot the doublet's feedpoint impedance for each band on that band's Smith chart.

[9] Using a compass centered at the Smith chart's origin, rotate the feedpoint impedance "towards generator" by the number of degrees corresponding to the shortest-possible feedline length, as calculated in step 3. Plot this point.

[10] Use the compass (centered at the origin) to draw an arc from this point, in the "towards generator" direction, for the number of

degrees corresponding to the difference between minimum and maximum feedline lengths.

What this should leave you with (we hope) is a chart for each band, which shows where the antenna's feedpoint impedance, transformed by the feedline, falls inside the range of impedances that the transmatch can handle. If the impedance arc comes near the centroid of one of the "We can match this" circle/blob, then the closest-to-centroid point on the arc would correspond to a feedline length which might be a very good one for that band.

If the arc doesn't enter a band's matchable circle/blob at all, or just barely enters it, then you may wish to go back to Step 6, pick a different doublet length, and try again.

Now, what you can do is take a piece of paper and draw a straight line. Put the minimum feedline length at one end and the maximum at the other.

For each band, look at the impedance arc, record the sections at which it's outside of the matchable-impedances blob (measure the number of electrical degrees of rotation from the load), and figure out the feedline lengths that these unmatchable sections correspond do. Use a colored marker to denote these lengths on the straight "minimum to maximum feedline" graph. Borrow color markers or crayons from your kids so that you have one color per band :-)

Once you've finished doing this for all of the bands you're interested in, take a look at the straightline graph of feedline length. If you're unlucky, *every* point on that graph will be colored as "not matchable" on one or more of the bands that you care about. If so, you can go back to Step 6 and try a different doublet length, or you can resign yourself to having to switch between two different lengths of feedline when QSYing.

If you're not unlucky, there will be at least one range of feedline lengths which can be matched on all bands. If so, I'd suggest choosing a length which causes the impedance arcs you plotted to fall near the centroids of the matchable-impedance areas, on the bands that you use most heavily.

The above is very much a manual procedure, requiring at least an hour of calculating and plotting and cussing. There are almost certainly some software tools which can be used to automate and simplify this process.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

2752. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 23:03:49 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-BB1EFE.18032619052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59194

In article <nkes62tjn2qsm98954fq7i40lapo93h5um@4ax.com>,
Owen Duffy <owen@no.where> wrote:

> On Fri, 19 May 2006 21:07:17 GMT, "The always Benevolent dbu."
> <Relaxand@melthe/rose.comm> wrote:
>
>
> >inconsistencies regarding length. From the responses I received here
> >there does not seem to be any agreement on length and my question was
> >not answered, at least not to my satisfaction.
>
> That statement reflects your ability to comprehend what was written by
> many, rather than what was written.
>
> If you expected a specific length as implied by your question "What is
> the correct way to determine the non-resonant feedline length of a
> multiband doublet using 450 ohm open wire." then you have been
> dissapointed.
>
> The consistent answer (even if not always well expressed) was that
> length is not particularly critical, though there may be some length /
> frequency combinations (that are very dependent on your particular
> implementation and equipment) that may challenge your ATU.
>
> I go along with the advice to use a convenient length of feedline, and
> if it is challenging to match up with the ATU, then lengthen the
> feedline a little.
>
> Your dissapointment is perhaps caused by your expectation of a
> specific length.
>
> Owen
> --

I keep going back to my very old ARRL antenna handbood which shows a
chart of favorable lengths of feedline. Is it wrong?

I also would like to point out W8JI website and the lengths of feedline
that he recommends, which seems to be consistent with my ARRL handbook,
1960 edition, for this type antenna:

http://www.w8ji.com/short_dipoles_and_problems.htm

Arrow down.

--
Email: dalej2@mac.com

2753. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 23:43:02 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <esjs629qe0fdn2bdcctene638p0hcs9k80@4ax.com>
Source record: 59195

On Fri, 19 May 2006 23:03:49 GMT, "dale.j. " <nos.pamz@nospam.com>
wrote:

>I keep going back to my very old ARRL antenna handbood which shows a
>chart of favorable lengths of feedline. Is it wrong?

My 2000 ARRL Handbook describes a 135' multiband dipole antenna but
does not make any recommendations on preferred feedline lengths.

Perhaps they have changed their mind since your edition was published.

Given sufficiently good transmission line, lengths to avoid are only
lengths to avoid because they present a load that the tuner cannot
efficiently transform, or the voltage exceeds the capability of the
tuner.

Highest voltages usually occur at frequencies much lower than the
first parallel resonance... so avoiding resonance doesn't address the
most significant region of high voltage.

>I also would like to point out W8JI website and the lengths of feedline
>that he recommends, which seems to be consistent with my ARRL handbook,
>1960 edition, for this type antenna:
>
>http://www.w8ji.com/short_dipoles_and_problems.htm
>

He does more than recommend a feedline length in isolation of other
parameters.

Tom's article is relevant and interesting.

You will see that he links to articles by Cebik and myself on the
G5RV.

Also relevant to the multiband dipole application is the analysis in
my article at http://www.vk1od.net/LOLL/index.htm and its reference
documents.

To get off the 1960 tram, factors that are relevant are:
- they probably did not foresee the WARC bands and design to include
those bands;
- the regions where efficient transformation is a problem are usually
very narrow, but quite dependent on the exact implementation
(including proximity of other conducting objects, ground / weather
conditions), and locating them outside amateur bands may require
in-situ tuning.

Owen
--

2754. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-19 23:44:37 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <eols629mhe8719j63fse4ub00kama9otul@4ax.com>
Source record: 59196

On Fri, 19 May 2006 21:48:38 GMT, "dale.j. " <nos.pamz@nospam.com>
wrote:

>I think you have brought up a good point as to the balance of the
>parallel wires which is self canceling.

Balanced current may be self cancelling, but currents are not self
balancing.

Owen
--

2755. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 00:09:50 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1148083790.131137.181880@j33g2000cwa.googlegroups.com>
Source record: 59197

Richard,

Maybe someone can help us here. Linearity is well-defined in electronics by the law of superposition, and is characterized by well-known measurements such as harmonic generation, compression point, and third-order intercept point. I'm assuming antennas must follow the same law of superposition while transmitting and receiving to be linear.

It is not clear to me that a nonlinear or even unpredictable current distribution along a wire antenna produces signals that violate the law of superposition. Under a strange current distribution the antenna radiation pattern will certainly distort, but how does that violate the law of superposition? That is, how can a strong received signal influence a weak one on an antenna with nonlinear current distribution?

Maybe, like so many other threads in this group, we are discussing orthogonal concepts.

73,
Glenn AC7ZN

2756. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 00:45:29 UTC
From: dplatt@radagast.org
Message-ID: <126spl9mu0d4079@corp.supernews.com>
Source record: 59198

In article <1148083790.131137.181880@j33g2000cwa.googlegroups.com>,
<glenn.b.dixon@gmail.com> wrote:

>Maybe, like so many other threads in this group, we are discussing
>orthogonal concepts.

I believe you're correct.

As I see it, in the *general* sense, linearity refers to a
relationship between two variables, where the relationship is one of

OUT = IN * F + C

where F and C are constants (plus a dimensional factor in many cases).
In other words, it's a straight-line relationship (hence, the name)
between two variables of the same or different dimension.

The sort of "linearity" that people usually refer to in electronics,
involves voltages and currents (vs. one another). A theoretically
perfect resistor, capacitor, or inductor is linear, because (e.g.) the
peak current through it has a strictly linear relationship to the peak
voltage across it.

A semiconductor junction is described as nonlinear, because the
current through it is not related to the voltage across it in a
strictly linear relationship.

The sort of "linearity" which Cecil seems to be referring to (if I
understand what he's written correctly) involves a completely
different sort of relationship. It's not current-vs-voltage, or
voltage-vs-current - it's current-vs-distance.

If I recall correctly, an infinitesimally-short "monopole" has a
current-vs-distance relationship which is close to linear. A
half-wave monopole does not.

Nonlinearities of this sort would have entirely different effects on
an antenna system than nonlinearities of the voltage-vs-current sort.

They're two different beasts entirely.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2757. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 01:28:16 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <446e70b0$0$1010$39cecf19@news.twtelecom.net>
Source record: 59199
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

Slow Code wrote:

> I predicted and warned you all this would happen, but none of you wouldn't
> listen.
>
> Good Hams upset over all the Lids and CB'er like behavior on the bands as
> a result of dumbing down license requirements are leaving the hobby. I
> can't say I blame them and I hate to see them go.
>
> On the bright side, there's a lot more ham gear on eBay you can bid on.
>
> sc

And what do these numbers prove? Not a bleeping thing.

I don't think any correlation exists between them and current behavior on HF, which I assume, possibly incorrectly, that you are refering to.

The biggest idiots on 20m, for instance, are on 14275, both sides are guilty, and I am quite sure that they all got their tickets with CW required. And the problem stations on 75 are quite the same. Which also proves nothing either way.

The cleanest, most public oriented operators are on 2m and 70cm, and many, or maybe most, of them did not have to pass any CW exam. They participate in Skywarn, emergency drills, and tons of other things. By and large they are good citizens. The bad actors I have seen come from all parts of the amateur community, with probably the worst from the longest licensed, who seem to feel they have some sort of rights from being around a long time. My personal sample could be wrong, but I don't think so; I've been around a while, too.

The older generation always predicts that the current one is going to cause the end of the world. Or whatever imagined disaster they are concerned about. And they are always wrong.

tom
K0TAR

2758. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 01:35:37 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1148088937.210792.29680@38g2000cwa.googlegroups.com>
Source record: 59200
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

Tom Ring wrote:
> Slow Code wrote:
>
> >
> > I predicted and warned you all this would happen, but none of you wouldn't
> > listen.
> >
> > Good Hams upset over all the Lids and CB'er like behavior on the bands as
> > a result of dumbing down license requirements are leaving the hobby. I
> > can't say I blame them and I hate to see them go.
> >
> > On the bright side, there's a lot more ham gear on eBay you can bid on.
> >
> > sc
>
> And what do these numbers prove? Not a bleeping thing.
>
> I don't think any correlation exists between them and current behavior
> on HF, which I assume, possibly incorrectly, that you are refering to.
>
> The biggest idiots on 20m, for instance, are on 14275, both sides are
> guilty, and I am quite sure that they all got their tickets with CW
> required. And the problem stations on 75 are quite the same. Which
> also proves nothing either way.

it does prove that CW testing is at best poor proof of screening out
bad ops

>
> The cleanest, most public oriented operators are on 2m and 70cm, and
> many, or maybe most, of them did not have to pass any CW exam. They
> participate in Skywarn, emergency drills, and tons of other things. By
> and large they are good citizens. The bad actors I have seen come from
> all parts of the amateur community, with probably the worst from the
> longest licensed, who seem to feel they have some sort of rights from
> being around a long time. My personal sample could be wrong, but I
> don't think so; I've been around a while, too.

none of them today HAD to pass one some certainly have
>
> The older generation always predicts that the current one is going to
> cause the end of the world. Or whatever imagined disaster they are
> concerned about. And they are always wrong.
at least to date

>
> tom
> K0TAR

2759. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 02:47:41 UTC
From: Michael Tope <W4EF@comcast.net>
Message-ID: <LeWdnbqtJq0vHvPZnZ2dnUVZ_s6dnZ2d@comcast.com>
Source record: 59201

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:21360-446CA574-1135@storefull-3257.bay.webtv.net...

> As electrons move along a conductor a magnetic field expands from some
> depth inside the conductor itself. The magnetic lines of force sweep
> outward from the conductor while inducing an emf in the conductor
> itself. The self induced emf opposes instantaneous change of current in
> the inductance of the conductor. This is the basis of Lenz`s law:
> "In all cases of electromagnetic induction, induced electromotive force
> and resultant current are in such a direction as to oppose the effect
> producing them."
>
> Skin effect prevents penetration of RF very deep into a good conductor.
> Skin effect makes RF coil shields impenetrable. Electric hields are
> shorted to ground by the conductive shield. Magnetic fields induce
> counter fields from the currents they induce on the surface of the
> shield.
>
> A Faraday screen breaks the current path on the shield preventing the
> counter fields from being magneticly induced. Result is a shield that is
> penetrable by the magnetic field but impenetrable by the electric field.
> The electric field is still shorted to ground by its conductive path.
> Faraday screens are used because they work.
>
> Best regards, Richard Harrison, KB5WZI
>

I would agree, Richard, but at HF frequencies the current path
around the shield isn't really broken by the gap. Due to the skin
effect, the RF current flowing on the inside of the loop shield is free
to flow around the edge of the shield conductor and onto the outside
of the shield at the gap. At very low frequencies, where the skin
depth is large, this wouldn't necessarily be true, but at HF as long
as there are a few skin depths between the outside and the inside
surface of the conductor, then the inside surface of the shield and
the outside surface of the shield can be treated as independent
conductors.

73, Mike W4EF.....

2760. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 02:57:30 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1148093850.852066.18100@u72g2000cwu.googlegroups.com>
Source record: 59202
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dan/W4NTI wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1147832357.964390.122730@i40g2000cwc.googlegroups.com...
> >
> > Dan/W4NTI wrote:
> >> "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
> >> news:38c8.gop.17.1@news.alt.net...
> >>
> >> 4
> >>
> > this is not a golfign NG dan I would expect you topay attention but you
> > insit on disappointing me
> >>
> >> Dan/W4NTI
> >>
>
> Try a spell check you goofball.
why?
> I don't give a damn if you are dyslexic or
> not. That does not preclude you using a spell checker.

never made anysuch claim

I keep asing you what right you have to make such a demnd you keep not
nswering

>
> Dan/W4NTI

2761. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 03:27:20 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <s0wbg.90051$dW3.47948@newssvr21.news.prodigy.com>
Source record: 59203

Richard Harrison wrote:
> Tom Donaly, KA6RUH wrote:
> "Actually, it`s supposed to be impossible to represent the current
> distribution along a dipole using simple mathematical formulas because
> integral equations have to be solved that are impervious to any solution
> other than numerical approximation."
>
> How many places do you attach to pi?
>
> First, what is linearity? It is the absence of nonlinearity.
>
> Millman and Seely wrote on page 525 of the 1951 edition of "Electronics"
> (one of my old textbooks):
> "Because of this nonlinear characteristic of the dynamic curve over the
> operating range, the wave form of the output wave differs slightly from
> that of the grid-exciting-voltage waveshape. Distortion of this type is
> called "nonlinear" or "amplitude" distortion.."
>
> All of the antennas I`ve worked with had no noticeable amplitude
> distortion. They caused no harmonics or mixing products.
>
> On page 235 of Kraus` 1950 edition of "Antennas" he sets out to solve
> Hallen`s equation for current distribution. On page 239, Kraus writes:
> "It is generally assumed that the current distribution of an
> infinitesimally thin antenna is sinusoidal, and that the phase is
> constant over a 1/2-wavelength interval, changing abruptly by
> 180-degrees between intervals."
>
> You can take what Kraus says to the bank.
>
> Best regards, Richard Harrison, KB5WZI
>

It certainly is interesting how many supposedly knowledgeable people
can't tell the difference between length and time. Millman and Seely
were writing about cycles per _second_. Kraus was talking about
distribution over _length_. Moreover, read Richard Clark's post
on this subject. Brother!
73,
Tom Donaly, KA6RUH

2762. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 04:50:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Dexbg.10738$fb2.4561@newssvr27.news.prodigy.net>
Source record: 59204

Richard Clark wrote:
> In other words, the non-linearity shown by the lack of
> congruence to the Cosine curve is not a presumption of non-linearity
> by the modeler; it is merely reporting an analysis.

You are being fooled by an illusion. Any deviation from
single frequency sinusoidal signals would generate harmonics
which we know doesn't happen. Your "non-linearity" is not
really there. For instance, a decrease in VF may compress
the waveform but that is not non-linearity.
--
73, Cecil http://www.qsl.net/w5dxp

2763. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 05:04:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <prxbg.10740$fb2.619@newssvr27.news.prodigy.net>
Source record: 59205

Tom Donaly wrote:
> What he believes is that
> since he can't detect any harmonics emanating from a sinusoidally
> fed dipole, the current along its length must be a sinusoid.

The non-existence of harmonics is prima facie evidence
that only single frequency sinusoids exist. A properly
functioning antenna system is linear. Any perceived
non-linearity is an illusion.
--
73, Cecil http://www.qsl.net/w5dxp

2764. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 05:19:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <NFxbg.10742$fb2.344@newssvr27.news.prodigy.net>
Source record: 59206

Tom Donaly wrote:

> Cecil Moore wrote:
>> Seems the easiest measurement of nonlinearity would be the
>> harmonics (if any) generated by the antenna that do not
>> appear in the source signal.
>
> Which wouldn't tell you a single thing about the current
> distribution along the length of the dipole.

Yes it would. It would be proof that the current distribution
along the length of the dipole is sinusoidal no matter what
your illusionary perceptions are telling you.

For standing wave antennas, if the source is a pure single
frequency sine wave and if no harmonics are generated
by the antenna system:

1. The forward wave is sinusoidal.

2. The reflected wave is sinusoidal and coherent with the
forward wave.

3. Their superposition results in a sinusoidal standing wave
with the same angular velocity.

Any non-linearity would introduce harmonics.
--
73, Cecil http://www.qsl.net/w5dxp

2765. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 05:25:34 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <iLxbg.10743$fb2.772@newssvr27.news.prodigy.net>
Source record: 59207

Tom Donaly wrote:
> People like Cecil, with
> home-grown theories, don't ever seem to want things considered in
> depth. That's understandable from a psychological standpoint, but
> it isn't any help to the rest of us when some of the things the theory
> ignores become significant. In the case of antennas, practically
> everything is significant.

All of the theories I am quoting were developed long before I was
born. Almost every technical explanation starts out with simple
concepts and proceeds to more complex concepts. For the sake of
teaching and understanding simple concepts, the secondary variables
are often ignored for the time being. Thus, every textbook on
transmission lines starts off with an explanation of lossless lines
with perfectly resistive characteristic impedances even though such
lines don't exist in reality.
--
73, Cecil http://www.qsl.net/w5dxp

2766. Replacing car broadcast antenna for AM/FM/2M/70cm

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 05:29:19 UTC
From: yea right <spam@spam.spam>
Message-ID: <pan.2006.05.20.05.29.17.886633@spam.spam>
Source record: 59208

I am looking for a commercial antenna that I can replace the regular broadcast antenna on my car with, that would still service the car broadcast radio but have bandpass/bandblock filters so that I can also use the same antenna for my mobile 2m/70cm FM radio.

Is there such a beast?

2767. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 05:32:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <1Sxbg.10745$fb2.3968@newssvr27.news.prodigy.net>
Source record: 59209
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

Slow Code wrote:
> I predicted and warned you all this would happen, but none of you wouldn't
> listen.

If none of us wouldn't listen, doesn't that mean that
all of us did listen?
--
73, Cecil http://www.qsl.net/w5dxp

2768. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 05:36:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sVxbg.10746$fb2.5599@newssvr27.news.prodigy.net>
Source record: 59210

Richard Clark wrote:
> How much distortion has to exist before you hear it? As this directly
> relates to your quoted selection, are we to believe that distortion
> does not exist if you cannot perceive it?

How about: Distortion can be measured.
--
73, Cecil http://www.qsl.net/w5dxp

2769. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 05:47:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <f4ybg.10748$fb2.3892@newssvr27.news.prodigy.net>
Source record: 59211

Dave Platt wrote:
> The sort of "linearity" which Cecil seems to be referring to (if I
> understand what he's written correctly) involves a completely
> different sort of relationship. It's not current-vs-voltage, or
> voltage-vs-current - it's current-vs-distance.

Assuming thin constant diameter wires with a constant Z0 and VF.

If the diameter of the wire changes, or Z0 changes, or VF changes,
the 'K' term in the cos(KX) expression changes. A change in a
constant does NOT produce non-linearity in a linear system. Just
because a wave slows down in a medium with a low VF doesn't mean
that the system has gone non-linear.
--
73, Cecil http://www.qsl.net/w5dxp

2770. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 05:53:50 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <O9ybg.10749$fb2.5856@newssvr27.news.prodigy.net>
Source record: 59212

Tom Donaly wrote:
> Kraus was talking about distribution over _length_.

Of course, Kraus is talking about the cos(KX) term
where 'X' is _length_ and 'K' is the constant that
converts that _length_ into degrees. Given 'K',
length and degrees are perfectly correlated.
--
73, Cecil http://www.qsl.net/w5dxp

2771. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 06:49:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gret62ldn13vlpgal5p27nm9lh8g57mhte@4ax.com>
Source record: 59213

On 19 May 2006 17:09:50 -0700, glenn.b.dixon@gmail.com wrote:

>Maybe someone can help us here.

Hi Glenn,

In the half dozen postings that followed this, did you find anything
discussed that helped you? Perhaps orthogonal was the wrong word,
transverse concepts?

73's
Richard Clark, KB7QHC

2772. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 10:45:56 UTC
From: Scott <acepilot@bloomer.net>
Message-ID: <hfGdnZaQ_ef7bvPZRVn-gg@bright.net>
Source record: 59214
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

Slow Code wrote:

>
>
> I predicted and warned you all this would happen, but none of you wouldn't
> listen.

None of us WOULDN'T listen? That means we all did, which is a lie...I
never heard your prediction before.
>

>
> On the bright side, there's a lot more ham gear on eBay you can bid on.

But...what good does having a bunch of gear if there is nobody to talk
to or listen to? I guess it's good if you're starting a radio museum...

>
> sc

2773. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 10:50:22 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-7BF6B4.05495820052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59215

In article <esjs629qe0fdn2bdcctene638p0hcs9k80@4ax.com>,
Owen Duffy <owen@no.where> wrote:

> On Fri, 19 May 2006 23:03:49 GMT, "dale.j. " <nos.pamz@nospam.com>
> wrote:
>
> >I keep going back to my very old ARRL antenna handbood which shows a
> >chart of favorable lengths of feedline. Is it wrong?
>
> My 2000 ARRL Handbook describes a 135' multiband dipole antenna but
> does not make any recommendations on preferred feedline lengths.
>
> Perhaps they have changed their mind since your edition was published.
>
> Given sufficiently good transmission line, lengths to avoid are only
> lengths to avoid because they present a load that the tuner cannot
> efficiently transform, or the voltage exceeds the capability of the
> tuner.
>
> Highest voltages usually occur at frequencies much lower than the
> first parallel resonance... so avoiding resonance doesn't address the
> most significant region of high voltage.
>
> >I also would like to point out W8JI website and the lengths of feedline
> >that he recommends, which seems to be consistent with my ARRL handbook,
> >1960 edition, for this type antenna:
> >
> >http://www.w8ji.com/short_dipoles_and_problems.htm
> >
>
> He does more than recommend a feedline length in isolation of other
> parameters.
>
> Tom's article is relevant and interesting.
>
> You will see that he links to articles by Cebik and myself on the
> G5RV.
>
> Also relevant to the multiband dipole application is the analysis in
> my article at http://www.vk1od.net/LOLL/index.htm and its reference
> documents.
>
> To get off the 1960 tram, factors that are relevant are:
> - they probably did not foresee the WARC bands and design to include

> those bands;
> - the regions where efficient transformation is a problem are usually
> very narrow, but quite dependent on the exact implementation
> (including proximity of other conducting objects, ground / weather
> conditions), and locating them outside amateur bands may require
> in-situ tuning.
>
> Owen
> --

Thanks for all the links which I am reading. My dipole is about 126 feet long which should be about right for 3.7 Mhz. I mostly use it on 75 M. The new feedline I have installed is a bit shorter than what I was using, I think it's now around 47 feet, the old stuff was 50 plus feet. I notice my Johnson matchbox now finds it somewhat difficult to tune up this antenna on 40 M so I may have to add on a few feet. A couple of years ago I had two loading coils on each leg of the tuner output and the whole thing was a perfect match on 75 and 40, all I had to do was change the bandswitch on the matchbox, nothing else.

I guess I'll just not worry about length of feedline only to make it tune nicely and fit the physical space from the antenna.

73
dale

--
Email: dalej2@mac.com

2774. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 12:14:29 UTC
From: Dave <noone@nowhere.com>
Message-ID: <waKdnW9NqoKylfLZRVn-ug@crocker.com>
Source record: 59216

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:gret62ldn13vlpgal5p27nm9lh8g57mhte@4ax.com...
> On 19 May 2006 17:09:50 -0700, glenn.b.dixon@gmail.com wrote:
>
>>Maybe someone can help us here.
>
> Hi Glenn,
>
> In the half dozen postings that followed this, did you find anything
> discussed that helped you? Perhaps orthogonal was the wrong word,
> transverse concepts?
>
> 73's
> Richard Clark, KB7QHC

whatever it is, KEEP IT GOING! just got off the tower after pulling up the lifting rope and caught up while my legs are recovering... boy its chilly up there, had to wear my winter coat and hat and gloves! but there are more showers forecast for this afternoon so i'll need some more fresh reading material! FIGHT! FIGHT! FIGHT!

2775. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 12:17:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <RNDbg.74304$F_3.781@newssvr29.news.prodigy.net>
Source record: 59217

dale.j. wrote:
> Thanks for all the links which I am reading. My dipole is about 126
> feet long which should be about right for 3.7 Mhz. I mostly use it on
> 75 M. The new feedline I have installed is a bit shorter than what I
> was using, I think it's now around 47 feet, the old stuff was 50 plus
> feet. I notice my Johnson matchbox now finds it somewhat difficult to
> tune up this antenna on 40 M so I may have to add on a few feet.

Did you take a look at the information on my web page at:

http://www.qsl.net/w5dxp/notuner.htm

It tells you everything you need to know about that antenna
including why 47 feet is not the best feedline length on 40m.
In particular, the chart at:

http://www.qsl.net/w5dxp/pnts130.gif

shows the best lengths for 40m to be 30 feet or 92 feet.
A good compromise single length for all-HF-band operation
is 100 feet.
--
73, Cecil http://www.qsl.net/w5dxp

2776. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 14:24:01 UTC
From: Ron <wa0kds@yahoo.com>
Message-ID: <446F27FE.4000903@yahoo.com>
Source record: 59218
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

>> On the bright side, there's a lot more ham gear on eBay you can bid on.
>
>
> But...what good does having a bunch of gear if there is nobody to talk
> to or listen to? I guess it's good if you're starting a radio museum...

Actually there is less of the good stuff on eBay than there was 2 years
ago. Plus prices for the rare stuff still keeps going up.

2777. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 14:27:46 UTC
From: Ron <wa0kds@yahoo.com>
Message-ID: <e4n912$f9a@dispatch.concentric.net>
Source record: 59219
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

>>I don't think any correlation exists between them and current behavior
>>on HF, which I assume, possibly incorrectly, that you are refering to.
>
>>The biggest idiots on 20m, for instance, are on 14275, both sides are
>>guilty, and I am quite sure that they all got their tickets with CW
>>required. And the problem stations on 75 are quite the same. Which
>>also proves nothing either way.
>
>
> it does prove that CW testing is at best poor proof of screening out
> bad ops

Yup if you check it out most of the crap on HF is from old farts that
passed their tests with the CW requirement.

2778. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 14:36:48 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <4QFbg.90097$dW3.25856@newssvr21.news.prodigy.com>
Source record: 59220

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Cecil Moore wrote:
>>
>>> Seems the easiest measurement of nonlinearity would be the
>>> harmonics (if any) generated by the antenna that do not
>>> appear in the source signal.
>>
>>
>> Which wouldn't tell you a single thing about the current
>> distribution along the length of the dipole.
>
>
> Yes it would. It would be proof that the current distribution
> along the length of the dipole is sinusoidal no matter what
> your illusionary perceptions are telling you.
>
> For standing wave antennas, if the source is a pure single
> frequency sine wave and if no harmonics are generated
> by the antenna system:
>
> 1. The forward wave is sinusoidal.
>
> 2. The reflected wave is sinusoidal and coherent with the
> forward wave.
>
> 3. Their superposition results in a sinusoidal standing wave
> with the same angular velocity.
>
> Any non-linearity would introduce harmonics.

The purpose of most antennas is to radiate electromagnetic waves.
That means there is loss. It also means that the current envelope is
affected. That's one of the reasons we use EZNEC. I suppose, Cecil,
that if you keep repeating the same old tired line, over and over
again, you might find someone who will agree with you. Certainly,
no antenna measurement would.
73,
Tom Donaly, KA6RUH

2779. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 15:31:52 UTC
From: JT
Message-ID: <IDGbg.65798$w85.33002@fe42.usenetserver.com>
Source record: 59221

Are you going to run QRP? I made mind out of 1/2 copper tubing and
made loop from coax at the top the tuning capacitor I used was from
ebay the spacing between the tuner is 1/4 inch my tuner is 4" wide
6"long and about 3 1/2 high first contact 22" off ground was Detroit
Michigan I'm in Dunedin Florida second contact was Canada for about
a half hour. with a small tunable cap you will have arking I am
running 100 watts. Jim De W8OLD
--

Posted with NewsLeecher v3.0 Final
* Binary Usenet Leeching Made Easy
* http://www.newsleecher.com/?usenet

2780. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 15:37:57 UTC
From: JT
Message-ID: <pJGbg.65799$w85.1909@fe42.usenetserver.com>
Source record: 59222

Try this site www.kr1st.com.magloop.htm
this one I built and am running 100 watts. 73's de Jim W8OLD
--

Posted with NewsLeecher v3.0 Final
* Binary Usenet Leeching Made Easy
* http://www.newsleecher.com/?usenet

2781. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 15:51:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <lWGbg.73831$_S7.17914@newssvr14.news.prodigy.com>
Source record: 59223

Tom Donaly wrote:
> The purpose of most antennas is to radiate electromagnetic waves.
> That means there is loss. It also means that the current envelope is
> affected. That's one of the reasons we use EZNEC.

The current envelope is affected but remains a linear
system function since it is the result of superposition
which itself is a linear system function.

> I suppose, Cecil,
> that if you keep repeating the same old tired line, over and over
> again, you might find someone who will agree with you. Certainly,
> no antenna measurement would.

The current envelope is a linear system function. I am
repeating the rules and laws of mathematics. Sounds
like you need to review the definition of linear systems.
You can do that at:

http://www.cns.nyu.edu/~david/linear-systems/linear-systems.html

In particular, quoting: "Systems that satisfy both homogeneity
and additivity are considered to be linear systems. These two rules,
taken together, are often referred to as the principle of superposition."

In general, antennas are linear systems that satisfy the principle
of superposition. If they were non-linear, they would not satisfy
the principle of superposition. Two linear system functions, like
forward waves and reflected waves, cannot superpose to a non-linear
function. Therefore, standing waves are linear, not non-linear,
functions. To argue otherwise exhibits a certain degree of ignorance.

Until the obvious mathematical misconception is corrected, no
rational discussion is possible. To the best of my knowledge,
Maxwell's equations are also linear system functions so claims
of non-linearity also contradict Maxwell's equations.
--
73, Cecil http://www.qsl.net/w5dxp

2782. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 15:58:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <076dnUhaopMRoPLZRVny0Q@bt.com>
Source record: 59224

> I suppose, Cecil,
> that if you keep repeating the same old tired line, over and over
> again, you might find someone who will agree with you.
==========

I agreed with Cecil the first time he said it.
But I'm only a foreigner.
So whatever I say doesn't carry any weight.
Or does it?

Reg.

2783. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 16:47:55 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-389750.11473320052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59225

In article <RNDbg.74304$F_3.781@newssvr29.news.prodigy.net>,
Cecil Moore <mycall@hotmail.com> wrote:

> dale.j. wrote:
> > Thanks for all the links which I am reading. My dipole is about 126
> > feet long which should be about right for 3.7 Mhz. I mostly use it on
> > 75 M. The new feedline I have installed is a bit shorter than what I
> > was using, I think it's now around 47 feet, the old stuff was 50 plus
> > feet. I notice my Johnson matchbox now finds it somewhat difficult to
> > tune up this antenna on 40 M so I may have to add on a few feet.
>
> Did you take a look at the information on my web page at:
>
> http://www.qsl.net/w5dxp/notuner.htm
>
> It tells you everything you need to know about that antenna
> including why 47 feet is not the best feedline length on 40m.
> In particular, the chart at:
>
> http://www.qsl.net/w5dxp/pnts130.gif
>
> shows the best lengths for 40m to be 30 feet or 92 feet.
> A good compromise single length for all-HF-band operation
> is 100 feet.

Yes I did Cecil. I went out and remeasured and found that I have about
67 total feet of feed line now. I may shorten that up again. I'll
re-check the links you provided, thanks.

--
Email: dalej2@mac.com

2784. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 16:55:12 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-5172A4.11545020052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59126

In article <RNDbg.74304$F_3.781@newssvr29.news.prodigy.net>,
Cecil Moore <mycall@hotmail.com> wrote:

> dale.j. wrote:
> > Thanks for all the links which I am reading. My dipole is about 126
> > feet long which should be about right for 3.7 Mhz. I mostly use it on
> > 75 M. The new feedline I have installed is a bit shorter than what I
> > was using, I think it's now around 47 feet, the old stuff was 50 plus
> > feet. I notice my Johnson matchbox now finds it somewhat difficult to
> > tune up this antenna on 40 M so I may have to add on a few feet.
>
> Did you take a look at the information on my web page at:
>
> http://www.qsl.net/w5dxp/notuner.htm
>
> It tells you everything you need to know about that antenna
> including why 47 feet is not the best feedline length on 40m.
> In particular, the chart at:
>
> http://www.qsl.net/w5dxp/pnts130.gif
>
> shows the best lengths for 40m to be 30 feet or 92 feet.
> A good compromise single length for all-HF-band operation
> is 100 feet.

BTW Cecil, I could never get 100 feet of open wire in my back yard
unless I coil it up or string it all over the place and that would not
be good. Isn't there a shorter length that would work for 75 & 40?

73
Dale j.

--
Email: dalej2@mac.com

2785. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 17:27:05 UTC
From: Dan Richardson <>
Message-ID: <d9ku62hcvheclu87e0dub6n2970nrq86ck@4ax.com>
Source record: 59127

On Sat, 20 May 2006 16:55:12 GMT, "dale.j. " <nos.pamz@nospam.com>
wrote:

>BTW Cecil, I could never get 100 feet of open wire in my back yard
>unless I coil it up or string it all over the place and that would not
>be good. Isn't there a shorter length that would work for 75 & 40?

Look, if the dog gone tuner will tune the thing okay why mess around
adjusting the feed line length?

Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2786. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 17:32:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <DoIbg.90137$dW3.76298@newssvr21.news.prodigy.com>
Source record: 59128

Reg Edwards wrote:
>>I suppose, Cecil,
>>that if you keep repeating the same old tired line, over and over
>>again, you might find someone who will agree with you.
>
> I agreed with Cecil the first time he said it.
> But I'm only a foreigner.
> So whatever I say doesn't carry any weight.
> Or does it?

I dug out my linear network theory book and would like
to present a few quotes and comments:

"The real world is inherently non-linear."

Lightning hitting an antenna can cause arcing and melted
wires.

"Although nature is non-linear, linear approximations over
defined ranges of validity are valid representations of
non-linear phenomena."

Amateur radio antennas are usually confined to that limited
linear range.

"The necessary and sufficient conditions for a linear system
are: (1) validity of the principle of superposition;
(2) preservation of scale factor.

Does doubling the power input to the antenna ~double the
radiated power? Does it ~double the non-radiated losses?

"Fortunately for the engineer, however, linear systems are
frequently excellent approximations to reality and have a
wide range of validity in the real world."

Maxwell's equations in particular. Textbook equations for
traveling waves and standing waves assume linearity.
--
73, Cecil http://www.qsl.net/w5dxp

2787. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 17:38:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <aulbg.90147$dW3.17632@newssvr21.news.prodigy.com>
Source record: 59129

dale.j. wrote:

> Cecil Moore <mycall@hotmail.com> wrote:
>>http://www.qsl.net/w5dxp/pnts130.gif
>>
>>shows the best lengths for 40m to be 30 feet or 92 feet.
>
> Yes I did Cecil. I went out and remeasured and found that I have about
> 67 total feet of feed line now.

(30+92)/2 = 61 feet, worst case for feeding that dipole
on 40m. For all-HF-band operation, I would highly
recommend a feedline length of 100 feet. You can use
a 60 foot run of small non-conductive rope with the
ladder-line spiraled around it and tie-wrapped to it
to obtain the better case 100 feet.
--
73, Cecil http://www.qsl.net/w5dxp

2788. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 17:39:44 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <AvIbg.74485$F_3.34687@newssvr29.news.prodigy.net>
Source record: 59130

Reg Edwards wrote:
>>I suppose, Cecil,
>>that if you keep repeating the same old tired line, over and over
>>again, you might find someone who will agree with you.
>
> ==
>
> I agreed with Cecil the first time he said it.
> But I'm only a foreigner.
> So whatever I say doesn't carry any weight.
> Or does it?
> ----
> Reg.
>
>

You're the master of simple approximation, Reg. Cecil thinks
your simplified ideas are received wisdom. Knowing you,
I find it hard to believe you'd ever agree with anyone.
73,
Tom Donaly, KA6RUH

2789. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 17:42:55 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s4lu62drhct2cuncrf9ti6kf1r27mle51o@4ax.com>
Source record: 59131

On Sat, 20 May 2006 12:14:29 -0000, "Dave" <noone@nowhere.com> wrote:

>KEEP IT GOING!

Dave, your trolling effort is rather a poor substitute for the sense
of accomplishment. Too many do it far better, with more flair, and
offer more entertainment than this pallid use of the CAPS KEYS.

2790. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 17:46:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <mCIbg.90155$dW3.86858@newssvr21.news.prodigy.com>
Source record: 59132

dale.j. wrote:
> BTW Cecil, I could never get 100 feet of open wire in my back yard
> unless I coil it up or string it all over the place and that would not
> be good. Isn't there a shorter length that would work for 75 & 40?

As you can see from: http://www.qsl.net/w5dxp/pnts130.gif
the 3.8 MHz feedline needs to be about 110 feet. Worst case
for 3.8 MHz would be about 55 feet. Why can't you use a non-
conductive messenger rope and spiral the 100 feet of tie
wrapped ladder-line along its 60 ft. length? That has worked
well for me. I predict that your tuner will have no problem
tuning 100 ft. of feedline at least on the lower bands. Since
your antenna is 3 feet shorter than mine, it may exhibit
different characteristics on the higher bands.
--
73, Cecil http://www.qsl.net/w5dxp

2791. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 17:52:22 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qHIbg.90156$dW3.62728@newssvr21.news.prodigy.com>
Source record: 59133

Tom Donaly wrote:
> Knowing you,
> I find it hard to believe you'd ever agree with anyone.

Reg and I are in perfect agreement on the benefits
of a good Cabernet.
--
73, Cecil http://www.qsl.net/w5dxp

2792. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 17:53:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <2jlu62hksmq85k3fumin30cu0r627o319i@4ax.com>
Source record: 59134

On Fri, 19 May 2006 21:50:35 GMT, Owen Duffy <owen@no.where> wrote:

>Your dissapointment is perhaps caused by your expectation of a
>specific length.

Hi Owen,

There is one way to obtain a simple answer, you make the transmission line an odd 8th wave long which will offer reasonable tuning. This insight comes courtesy of Walt Maxwell's techniques offered for measuring steep loads found in his classic "Reflections."

73's
Richard Clark, KB7QHC

2793. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 17:56:50 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <aulu621n286t2hm037qlda1l3fcpatm17c@4ax.com>
Source record: 59136

On Sat, 20 May 2006 17:39:44 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Cecil thinks your simplified ideas are received wisdom.

Hi Tom,

Is there some suggestion of smoldering bush in this parable?
Commandments that are unzipped and ready for immediate entablature?

73's
Richard Clark, KB7QHC

2794. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 17:57:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <WLIbg.90160$dW3.40321@newssvr21.news.prodigy.com>
Source record: 59135

Richard Clark wrote:
> There is one way to obtain a simple answer, you make the transmission
> line an odd 8th wave long which will offer reasonable tuning. This
> insight comes courtesy of Walt Maxwell's techniques offered for
> measuring steep loads found in his classic "Reflections."

Where does Walt say that?
--
73, Cecil http://www.qsl.net/w5dxp

2795. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 18:01:27 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <XPIbg.90162$dW3.77939@newssvr21.news.prodigy.com>
Source record: 59137

Cecil Moore wrote:

> Reg Edwards wrote:
>
>>> I suppose, Cecil,
>>> that if you keep repeating the same old tired line, over and over
>>> again, you might find someone who will agree with you.
>>
>>
>> I agreed with Cecil the first time he said it.
>> But I'm only a foreigner.
>> So whatever I say doesn't carry any weight.
>> Or does it?
>
>
> I dug out my linear network theory book and would like
> to present a few quotes and comments:
>
> "The real world is inherently non-linear."
>
> Lightning hitting an antenna can cause arcing and melted
> wires.
>
> "Although nature is non-linear, linear approximations over
> defined ranges of validity are valid representations of
> non-linear phenomena."
>
> Amateur radio antennas are usually confined to that limited
> linear range.
>
> "The necessary and sufficient conditions for a linear system
> are: (1) validity of the principle of superposition;
> (2) preservation of scale factor.
>
> Does doubling the power input to the antenna ~double the
> radiated power? Does it ~double the non-radiated losses?
>
> "Fortunately for the engineer, however, linear systems are
> frequently excellent approximations to reality and have a
> wide range of validity in the real world."
>
> Maxwell's equations in particular. Textbook equations for
> traveling waves and standing waves assume linearity.

You can still pretend a dipole is a "linear system," as you call it, and still understand that the current envelope is not a simple sine function. The Achilles heel of all your reflection mechanics ideas is the assumption that everything is lossless. (Not to mention the fact that it's supposed to exist in outer space.) You and Reg like to think of a dipole as a transmission line, and Reg can even tell you its characteristic impedance (average). What neither he nor you ever mention is the alpha part of the propagation constant. That's the important part, though, since it signifies radiation, the very thing the antenna was designed to do.

By the way, why are you quoting from a network theory book when not too long ago you were ranting and raving about the invalidity of the lumped constant model?
73,
Tom Donaly, KA6RUH

2796. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 19:39:48 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <4Yednd2Bbdlf7fLZRVn-uQ@insightbb.com>
Source record: 59138

That link doesn't

"JT" <jt@trek.net> wrote in message
news:pJGbg.65799$w85.1909@fe42.usenetserver.com...
> Try this site www.kr1st.com.magloop.htm
> this one I built and am running 100 watts. 73's de Jim W8OLD
> --
> --
> Posted with NewsLeecher v3.0 Final
> * Binary Usenet Leeching Made Easy
> * http://www.newsleecher.com/?usenet
> --
>

2797. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 19:40:04 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Fp-dncSut6o57fLZRVn-hg@crocker.com>
Source record: 59139

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:s4lu62drhct2cuncrf9ti6kf1r27mle51o@4ax.com...
> On Sat, 20 May 2006 12:14:29 -0000, "Dave" <noone@nowhere.com> wrote:
>
>>KEEP IT GOING!
>
> Dave, your trolling effort is rather a poor substitute for the sense
> of accomplishment. Too many do it far better, with more flair, and
> offer more entertainment than this pallid use of the CAPS KEYS.

I'm just cheering you on... besides if I'm going to troll I might as well abandon some other parts of decency in the process. And it doesn't seem like anyone cares, even with the obvious thread title it took off all on its own.

2798. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 19:52:32 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-7FA88A.14520920052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59140

In article <auIbg.90147$dW3.17632@newssvr21.news.prodigy.com>,
Cecil Moore <mycall@hotmail.com> wrote:

> dale.j. wrote:
>
> > Cecil Moore <mycall@hotmail.com> wrote:
> >>http://www.qsl.net/w5dxp/pnts130.gif
> >>
> >>shows the best lengths for 40m to be 30 feet or 92 feet.
> >
> > Yes I did Cecil. I went out and remeasured and found that I have about
> > 67 total feet of feed line now.
>
> (30+92)/2 = 61 feet, worst case for feeding that dipole
> on 40m. For all-HF-band operation, I would highly
> recommend a feedline length of 100 feet. You can use
> a 60 foot run of small non-conductive rope with the
> ladder-line spiraled around it and tie-wrapped to it
> to obtain the better case 100 feet.

Well I'll give it some thought. All I need is to find room somehow for
33 more feet of ladder. Maybe I will try it jury rigged first to see
how it tunes, but not today, it rains. Doesn't the matchbox do the
electrical tuning of the feedline instead of using fixed lengths as you
are doing? As you said the length I have now does not tune very well on
40, I can get it to work but it's like opening a safe.

I just dug out my Drake MN-2700 user manual and it says to use 135 foot
long horizontal fed in the middle with 67 feet of ladder. Weird, this
stuff is worse than making a pizza.

Dale j.

--
Email: dalej2@mac.com

2799. Re: HF broadcasting antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 19:56:20 UTC
From: clifto <clifto@gmail.com>
Message-ID: <5s84k3-2id.ln1@remote.clifto.com>
Source record: 59141
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

sipa wrote:
> First please excuse me for my bad english.

1. Your English is far better than my Hungarian.
2. Your English is better than the English that is spoken or written by
many US college graduates.

--
Britney Spears' Guide to Semiconductor Physics
<http://britneyspears.ac/lasers.htm>

2800. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 21:00:04 UTC
From: Dan Richardson <>
Message-ID: <7q0v62ptc4cdu3h3ce41kemo09ef8vmcc9@4ax.com>
Source record: 59142

On Sat, 20 May 2006 17:57:10 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Richard Clark wrote:
>> There is one way to obtain a simple answer, you make the transmission
>> line an odd 8th wave long which will offer reasonable tuning. This
>> insight comes courtesy of Walt Maxwell's techniques offered for
>> measuring steep loads found in his classic "Reflections."
>
>Where does Walt say that?

In chapter 15.

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2801. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 21:33:48 UTC
From: richardharrison@webtv.net
Message-ID: <4754-446F8B3C-20@storefull-3255.bay.webtv.net>
Source record: 59143

Reg, G4FGQ wrote:
"I agreed with Cecil the first time he said it. But I`m only a
foreigner.

So whatever I say doesn`t carry any weight. Or does it?"

We all are foreigners in most places. Reg`s reputation precedes him so
he always carries a lot of weight.

Best regards, Richard Harrison, KB5WZI

2802. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 22:15:39 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <fyMbg.27112$QP4.10463@fed1read12>
Source record: 59144
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

> > I am quite sure that they all got their tickets with CW
> > required. And the problem stations on 75 are quite the same. Which
> > also proves nothing either way.
>
> it does prove that CW testing is at best poor proof of screening out
> bad ops

There's no test for one important ham skill: typing. I didn't appreciate how important it is until I learned that one of my pro-Morse buddies does all of his sending with a computer. (He can send with a key but doesn't know where his is.) He says he copies with the computer, too, although he can follow along with the audio.

I asked around and found this practice is far from rare; I'm not sure "common" is the right word, though.

We also might want to test for basic language skills, including punctuation. While it's not always true, the disagreeable transmissions (and NG posts) often make the speakers/writers sound pretty ignorant.

2803. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 22:19:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <TBMbg.29427$4L1.5847@newssvr11.news.prodigy.com>
Source record: 59146

Tom Donaly wrote:
> You can still pretend a dipole is a "linear system," as you
> call it, and still understand that the current envelope is not
> a simple sine function.

Diverting to a "simple" sine function in the same spirit as
diverting to a "small" loading coil?

If you were always talking about a perfect sine wave, you should
have said so long before now and nobody would have disagreed with
you.

> The Achilles heel of all your reflection
> mechanics ideas is the assumption that everything is lossless.

That's NOT the assumption. The assumption is that lossless systems
are easiest to understand so let's understand them first before
we move on to something more complex. You guys have proven that
you don't even understand the simple lossless condition.

> (Not to mention the fact that it's supposed to exist in outer
> space.) You and Reg like to think of a dipole as a transmission line,
> and Reg can even tell you its characteristic impedance (average). What
> neither he nor you ever mention is the alpha part of the
> propagation constant. That's the important part, though, since it
> signifies radiation, the very thing the antenna was designed to do.

Only about 1 dB of the steady-state energy stored in a 1/2WL
dipole is radiated so radiation is not the largest effect. The
radiation from an antenna can be simulated by using resistance
wire to simulate a 1 dB loss in a transmission line. The reason
that I have rarely mentioned such is that you guys don't understand
enough of the basics to proceed to those more complex examples.

> By the way, why are you quoting from a network theory book when not
> too long ago you were ranting and raving about the invalidity of the
> lumped constant model?

The lumped constant model is valid under certain conditions. What I
object to is its use under known invalid conditions. The lumped constant
model and distributed network model are both *linear systems*.
--
73, Cecil http://www.qsl.net/w5dxp

2804. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 22:20:04 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <l73v62pn18bvuqpk100s5106f27jpoja4s@4ax.com>
Source record: 59145

On Sat, 20 May 2006 10:53:04 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Fri, 19 May 2006 21:50:35 GMT, Owen Duffy <owen@no.where> wrote:
>
>>Your dissapointment is perhaps caused by your expectation of a
>>specific length.
>
>Hi Owen,
>
>There is one way to obtain a simple answer, you make the transmission
>line an odd 8th wave long which will offer reasonable tuning. This
>insight comes courtesy of Walt Maxwell's techniques offered for
>measuring steep loads found in his classic "Reflections."
>

Richard,

The original question was regarding a multiband double of unspecified
length.

Aren't there lengths of the dipole that in concert with an eight wave
feedline would challenge the ATU?

Have you made assumptions about the doublet length in making this
recommendation?

Owen
--

2805. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 22:25:50 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <OHMbg.29429$4L1.25125@newssvr11.news.prodigy.com>
Source record: 59147

dale.j. wrote:
> Doesn't the matchbox do the
> electrical tuning of the feedline instead of using fixed lengths as you
> are doing?

If it's a Johnson Matchbox, it has a limited tuning range.
But for dipoles 1/2WL at the lowest frequency of operation,
feeding in the rough vicinity of the current maximum point
will work. For 80m and 40m, you might get by with 80 feet
of feedline.

> I just dug out my Drake MN-2700 user manual and it says to use 135 foot
> long horizontal fed in the middle with 67 feet of ladder. Weird, this
> stuff is worse than making a pizza.

If that is for 80m or 40m, the Drake must like very high
impedances.
--
73, Cecil http://www.qsl.net/w5dxp

2806. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 22:28:07 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148164087.750699.162430@i39g2000cwa.googlegroups.com>
Source record: 59148
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

Sal M. Onella wrote:
> > > I am quite sure that they all got their tickets with CW
> > > required. And the problem stations on 75 are quite the same. Which
> > > also proves nothing either way.
> >
> > it does prove that CW testing is at best poor proof of screening out
> > bad ops
>
> There's no test for one important ham skill: typing.
> I asked around and found this practice is far from rare; I'm not sure
> "common" is the right word, though.
>
> We also might want to test for basic language skills, including punctuation.
why?

why do do we want to restrict the numer of hams in that manner

> While it's not always true, the disagreeable transmissions (and NG posts)
> often make the speakers/writers sound pretty ignorant.

2807. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 22:32:39 UTC
From: richardharrison@webtv.net
Message-ID: <23820-446F9907-347@storefull-3252.bay.webtv.net>
Source record: 59149

Dale j wrote:
"I just dug out my Drake MN-2700 user manual and it says to use 135 fiit long horizontal fed in the middle with 67 feet of ladder."

Drakes idea is probably a versatile antenna similar to the one on page 22.11 of the 2006 ARRL Handbook.

At 80 meters it is about 1/2-wavelength fed with about 1/4-wavelength of feedline. A grounded radio presents a high impedance to comon-mode travel where the line meets the antenna at the resonant frequency of the antenna. Your radio should not bite you on 80 meters and a versatile tuner should make the antenna useable through 10 meters. The pattern goes through a lot of change in that range of frequencies. This is predicted by a modeling program and some of the transition is shown in the handbook.

Best regards, Richard Harrison, KB5WZI

2808. Re: Replacing car broadcast antenna for AM/FM/2M/70cm

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 23:03:22 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <_eNbg.27116$QP4.16428@fed1read12>
Source record: 59150

"yea right" <spam@spam.spam> wrote in message
news:pan.2006.05.20.05.29.17.886633@spam.spam...
> I am looking for a commercial antenna that I can replace the regular
> broadcast antenna on my car with, that would still service the car
> broadcast radio but have bandpass/bandblock filters so that I can also use
> the same antenna for my mobile 2m/70cm FM radio.
>
> Is there such a beast?

First, I couldn't find you an HF/VHF diplexer, but you can build one.
http://home.datacomm.ch/hb9abx/diplhf6m-vuhf.html

Second, do you have to have both radios functional simultaneously or are you willing to switch one antenna between to radios? If you're hamming you probably don't want the BCST radio playing in the background.

Here's my story:
Years ago, I developed an open shield in my van's BCST antenna and I didn't want to tear apart the dashboard to replace the antenna, so I put a Motorola-to-BNC adapter into the back of the car radio. From there I dropped a short length of coax down, ran it under the floormat to a point behind the seat and connected it to my MFJ magmount's coax. (If I'm hamming, I disconnect the BCST radio and use the magmount as MFJ intended. I never bothered to install a switch.)

My $15.95 (last time I bought one) MFJ Dual Band magmount works perfectly as a substitute for the car's BCST antenna -- AM & FM just fine. BONUS: On long inter-city trips, I swap out the stock whip for a longer, straight whip and the BCST reception is just wonderful.

2809. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-20 23:40:11 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-B08E33.18394820052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59151

In article <OHMbg.29429$4L1.25125@newssvr11.news.prodigy.com>,
Cecil Moore <mycall@hotmail.com> wrote:

> dale.j. wrote:
> > Doesn't the matchbox do the
> > electrical tuning of the feedline instead of using fixed lengths as you
> > are doing?
>
> If it's a Johnson Matchbox, it has a limited tuning range.
> But for dipoles 1/2WL at the lowest frequency of operation,
> feeding in the rough vicinity of the current maximum point
> will work. For 80m and 40m, you might get by with 80 feet
> of feedline.
>
> > I just dug out my Drake MN-2700 user manual and it says to use 135 foot
> > long horizontal fed in the middle with 67 feet of ladder. Weird, this
> > stuff is worse than making a pizza.
>
> If that is for 80m or 40m, the Drake must like very high
> impedances.

I'll give the 100 ft a go and let you know.

When you say wind the ladder line around a tag rope, I assume you mean
to use ties around one wire of the ladder and make the loop maybe a foot
in diameter or maybe 6 inches? Sort of a helix affair. Would that
cause a problem with the ladder being so close to the turns? I've read
where I should keep the ladder from sharp angles and away from metal
objects so as not to unbalance the line and destroy the cancel
properties of ladder line.

The more I read about this the more it looks like black magic.

Dalej.

--
Email: dalej2@mac.com

2810. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 00:00:22 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <r4Obg.27117$QP4.23293@fed1read12>
Source record: 59152
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1148164087.750699.162430@i39g2000cwa.googlegroups.com...

> > We also might want to test for basic language skills, including
punctuation.
> why?
>
> why do do we want to restrict the numer of hams in that manner

That's a persuasive argument and you've definitely brought some clarity to
the issue. Thanks so much.

2811. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 00:05:35 UTC
From: CW <s@earthlink.net>
Message-ID: <j9Obg.5$Yu1.4@newsread1.news.pas.earthlink.net>
Source record: 59153

Look at his site. Cecil does not use a tuner.

"dale.j. " <nos.pamz@nospam.com> wrote in message
news:nos.pamz-7FA88A.14520920052006@news-rdr-03.rdc-kc.rr.com...
>Doesn't the matchbox do the
> electrical tuning of the feedline instead of using fixed lengths as you
> are doing?

2812. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 00:48:42 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <KNObg.74053$_S7.28198@newssvr14.news.prodigy.com>
Source record: 59154

Richard Clark wrote:
> On Sat, 20 May 2006 17:39:44 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>Cecil thinks your simplified ideas are received wisdom.
>
>
> Hi Tom,
>
> Is there some suggestion of smoldering bush in this parable?
> Commandments that are unzipped and ready for immediate entablature?
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
Yes, but there's some evidence Cecil is about to
apostatize. I hope he doesn't end up wandering in the wilderness.
73,
Tom Donaly, KA6RUH

2813. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 00:51:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <lmdv62tqr2ho5fidc9tcsad2qaj7gihi7o@4ax.com>
Source record: 59155

On Sat, 20 May 2006 22:20:04 GMT, Owen Duffy <owen@no.where> wrote:

>The original question was regarding a multiband double of unspecified
>length.
>
>Aren't there lengths of the dipole that in concert with an eight wave
>feedline would challenge the ATU?

Probability certainly suggests so. Russian roulette's popularity is based, in part, with the notion "I'm feeling luckier than you." We can both agree that perhaps the same mind-set is at work dreaming in Technicolor and surround-sound for this doublet.

>Have you made assumptions about the doublet length in making this
>recommendation?

Hi Owen,

That was the point of my (Walt's) choice of an odd 8th wave length transmission line, at least for a fire breather load, it pulls it into a relatively placid range for matching (measuring).

If the original poster needs a simple rule, the odd 8th wave is good as any. However, if this is in an effort to cover every band, series/parallel resistors will do the job every time.

73's
Richard Clark, KB7QHC

2814. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 01:00:35 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148173235.369647.170700@j55g2000cwa.googlegroups.com>
Source record: 59156
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

Sal M. Onella wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1148164087.750699.162430@i39g2000cwa.googlegroups.com...
>
> > > We also might want to test for basic language skills, including
> punctuation.
> > why?
> >
> > why do do we want to restrict the numer of hams in that manner
>
>
> That's a persuasive argument and you've definitely brought some clarity to
> the issue. Thanks so much.
meaning of course you have no answer answer as well no name

2815. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 01:12:16 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <l4dv625sp00j4rpuv1ru4jmlotrv6jp3l8@4ax.com>
Source record: 59157

On Sat, 20 May 2006 16:47:55 GMT, "dale.j. " <nos.pamz@nospam.com>
wrote:

>In article <RNDbg.74304$F_3.781@newssvr29.news.prodigy.net>,
> Cecil Moore <mycall@hotmail.com> wrote:
>
>> dale.j. wrote:
>> > Thanks for all the links which I am reading. My dipole is about 126
>> > feet long which should be about right for 3.7 Mhz. I mostly use it on
>> > 75 M. The new feedline I have installed is a bit shorter than what I
>> > was using, I think it's now around 47 feet, the old stuff was 50 plus
>> > feet. I notice my Johnson matchbox now finds it somewhat difficult to
>> > tune up this antenna on 40 M so I may have to add on a few feet.
>>
>> Did you take a look at the information on my web page at:
>>
>> http://www.qsl.net/w5dxp/notuner.htm
>>
>> It tells you everything you need to know about that antenna
>> including why 47 feet is not the best feedline length on 40m.
>> In particular, the chart at:
>>
>> http://www.qsl.net/w5dxp/pnts130.gif
>>
>> shows the best lengths for 40m to be 30 feet or 92 feet.
>> A good compromise single length for all-HF-band operation
>> is 100 feet.
>
>Yes I did Cecil. I went out and remeasured and found that I have about
>67 total feet of feed line now. I may shorten that up again. I'll
>re-check the links you provided, thanks.

47', now 67'... slowly more information emerges, even if changing.

The following is a one band (40m) perspective of your multiband
antenna.

If you have a 126' dipole (as you said), it has a feedpoint impedance
that is quite high around 7MHz because it is close to a full wave
dipole which has a feedpoint impedance around 4200+j0 (depending on
height, ground etc). A 126' dipole 15m above average ground is
probably around 3600+j1400 at 7.2MHz.

If you were using 67' of Wireman 551, you would expect the load seen
by the tuner to be around 660-j1400 ohms (assuming an effective 1:1
balun)... which is not extreme, but it is fairly high and might

challenge some ATUs. Lengthening the feedline will bring the load impedance down fairly quickly, just another 10' (ie 77' overall) gives 90-j400. Shortening the feedline a little from 67' will make it worse, 62.5' will give you the maximum load impedance of 3500+ ohms.

Standing back and taking a system view, it is questionable whether making the dipole resonant or very close to resonance at 3.7MHz as you have done, makes harmonic operation easier. It certainly presents the worst case feedline VSWR on 7MHz, the highest feedline voltage (>2500V peak at 1kW), though the transmission line loss for 90' of 551 is only 0.6dB in the above scenario.

Owen

PS: I know conventional wisdom is to make a multiband dipole half wavelength at the lowest operating frequency, and the ARRL shows such an antenna with 130' dipole length.

It turns out that if a dipole with practical length of open wire feeder to an ATU at the tx is less than about 35% of a wavelength, system losses increase dramatically with reduced length, so the dipole should not be less than about 35% of wavelength at the lowest frequency. You can see the effect in Fig 2 of my article at http://www.vk1od.net/LOLL/index.htm . In that case, the system losses with a 66' dipole are acceptable down to about 5.5MHz, for 3.5MHz the dipole needs to be greater than 5.5/3.5*66' or 103'.
--

2816. Re: question about tunable capacitor: how to mount ??

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 02:56:52 UTC
From: Irv Finkleman <finkirv@shaw.ca>
Message-ID: <446FD707.D3B5E8CD@shaw.ca>
Source record: 59158

"jt@trek.net" wrote:
>
> Try this site www.kr1st.com.magloop.htm
> this one I built and am running 100 watts. 73's de Jim W8OLD
> --
> --
> Posted with NewsLeecher v3.0 Final
> * Binary Usenet Leeching Made Easy
> * http://www.newsleecher.com/?usenet
> --

The link should read http://www.kr1st.com/magloop.htm

Irv VE6BP
--

Diagnosed Type II Diabetes March 5 2001
Beating it with diet and exercise!
297/215/210 (to be revised lower)
58"/43"(!)/44" (already lower too!)

Visit my HomePage at http://members.shaw.ca/finkirv/index.html
Visit my Baby Sofia website at http://members.shaw.ca/finkirv4/index.htm
Visit my OLDTIMERS website at http://members.shaw.ca/finkirv5/index.htm
----
Irv Finkleman,
Grampa/Ex-Navy/Old Fart/Ham Radio VE6BP
Calgary, Alberta, Canada

2817. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 03:46:42 UTC
From: richardharrison@webtv.net
Message-ID: <21360-446FE2A2-1481@storefull-3257.bay.webtv.net>
Source record: 59159

Mike, W4EF wrote:
"I would agree, Richard, but at HF frequencies, the current path around the shield isn`t real;ly broken by the gap."

To best describe what broken means, a picture helps. There is a picture on page 13.18 of the 2006 ARRL Handbook. Fig 13.26 has a legend which says:
"To prevent shielding of the loop from magnetic fields, leave the shield unconnected at one end."

I think the handbook has it right.

Best regards, Richard Harrison, KB5WZI

2818. Auto-Tuners with balanced antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 04:12:31 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97C9D7E3CBC77spectrumhogstarbandn@198.186.192.196>
Source record: 59160

Any recommendations for an automatic tuner that will work well with balanced antennas fed with 600 ohm ladder line?

Specifically, I have in mind a 160M dipole fed with ladder line.

Ed K7AAT

2819. Re: HF broadcasting antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 04:25:44 UTC
From: m II <none@telus.net>
Message-ID: <cZRbg.18175$zn1.12951@clgrps13>
Source record: 59161
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

clifto wrote:

> sipa wrote:
>
>>First please excuse me for my bad english.
>
>
> 1. Your English is far better than my Hungarian.

Mindenkinek a Magyarja job mint az Angolod..

mihaly (Doing the Dance of Joy..) II

2820. Re: HF broadcasting antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 04:27:54 UTC
From: m II <none@telus.net>
Message-ID: <e%Rbg.18176$zn1.16503@clgrps13>
Source record: 59162
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

m II wrote:
> clifto wrote:
>
>
>>sipa wrote:
>>
>>
>>>First please excuse me for my bad english.
>>
>>
>>1. Your English is far better than my Hungarian.

The poster's .sig was a Slavic language, not Hungarian.

mike

2821. 2.4 GHz Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 04:49:24 UTC
From: "pdrunen@aol.com" <pdrunen@aol.com>
Message-ID: <1148186964.790355.140740@i39g2000cwa.googlegroups.com>
Source record: 59163

Hi Group,

I looking at convering a TV UHF antenna to 2.4 GHz, the antenna has a yagi part with elements spaced every 3 inches and the elements are the same lenght of about 3 inches.

I think the 3 inch element lenght are a little long, and the elements need to be cut so that one of them is the reflector and one as a driven elements and the others would be come directors. There are about 10 elements on this boom.

The element spacing, 3 inches most likely will do OK ? comments?

A look in the handbook for 2.4 GHz antenna, either they don't include them or I missed them. I have several old handbooks and ARRL antenna books.

So, would as anyone who has some of the basic dimensions to pass that along.

Also concerned that the frequency will require a SMA or Type-N and matching, I don't have a means to check the SWR.

De KJ4UO

2822. Re: 2.4 GHz Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 05:00:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <iusv62dh80emqi9amep8muk85ok4tnc6qe@4ax.com>
Source record: 59164

On 20 May 2006 21:49:24 -0700, "pdrunen@aol.com" <pdrunen@aol.com>
wrote:

>I looking at convering a TV UHF antenna to 2.4 GHz

Hi OM,

Sounds like a fool's mission.

73's
Richard Clark, KB7QHC

2823. Re: Auto-Tuners with balanced antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 06:53:58 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97C9F31D43C97doldridgsprintca@64.59.135.159>
Source record: 59165

Ed <Huckleberry_REMOVE_@bigvalley.net> wrote in
news:Xns97C9D7E3CBC77spectrumhogstarbandn@198.186.192.196:

>
> Any recommendations for an automatic tuner that will work well with
> balanced antennas fed with 600 ohm ladder line?
>
> Specifically, I have in mind a 160M dipole fed with ladder line.

Well, I've not tried THAT, specifically, but my MFJ939B will load a 50foot
piece of what looks like 200 or 150 ohm twinlead with half of one side
stripped away just fine, if I connect up the internal balun. And I mean
LOAD it--on any frequency from 1.8 to 30mhz.

I've also loaded small loops with it well off their resonant points and use
it all the time to lead hamstick whips well off their resonant points.

I don't think you'd have any real trouble as long as the 600 ohm line ran
straight away from the antenna, at least in the near field.

--
Dave Oldridge+
ICQ 1800667

2824. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 07:57:06 UTC
From: Michael Tope <W4EF@comcast.net>
Message-ID: <9f6dndFM6YCPt-3ZRVn-rQ@comcast.com>
Source record: 59166

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:21360-446FE2A2-1481@storefull-3257.bay.webtv.net...
> Mike, W4EF wrote:
> "I would agree, Richard, but at HF frequencies, the current path around
> the shield isn`t real;ly broken by the gap."
>
> To best describe what broken means, a picture helps. There is a picture
> on page 13.18 of the 2006 ARRL Handbook. Fig 13.26 has a legend which
> says:
> "To prevent shielding of the loop from magnetic fields, leave the shield
> unconnected at one end."
>

I am a bit behind on ARRL Handbooks, Richard, but from
what you describe, this is the same figure that appears in my
1992 edition (chapter 38, figure 2). In any case, what is
shown in the figure agrees with my understanding of "broken",
although admittedly when I made my previous post, I was
thinking of the case where the shield is broken on the side of
the loop opposite the feedpoint. For the purposes of this
discussion, however, it doesn't matter whether the break is
at the top (opposite the feed) or at the bottom (adjacent
to the feed). In either case, current induced on the inside
of the shield by current flowing on the center conductor loop
has a continuous back to ground via the outside surface of the
shield. IOW, the gap doesn't suppress the eddy current, rather
it forces it to flow on the outside surface of the shield, thereby
causing the loop to radiate.

>
> I think the handbook has it right.
>

Yes, I agree it does. If you connect the shield at both ends, the
loop can't radiate because the eddy current caused by current
flowing on the inner conductor loop will confined to the inside of
the shield. Likewise, eddy currents induced on the outside of the
shield by EM waves passing the antenna will be confined to the
outside of the shield if there is no gap (reciprocity holds - the
antenna won't receive with no gap).

73, Mike W4EF.....

> Best regards, Richard Harrison, KB5WZI
>

2825. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 09:42:38 UTC
From: w8ji@akorn.net
Message-ID: <1148204558.861148.41500@j55g2000cwa.googlegroups.com>
Source record: 59167

Michael Tope wrote:
>> I am a bit behind on ARRL Handbooks, Richard, but from
> what you describe, this is the same figure that appears in my
> 1992 edition (chapter 38, figure 2). In any case, what is
> shown in the figure agrees with my understanding of "broken",
> although admittedly when I made my previous post, I was
> thinking of the case where the shield is broken on the side of
> the loop opposite the feedpoint. For the purposes of this
> discussion, however, it doesn't matter whether the break is
> at the top (opposite the feed) or at the bottom (adjacent
> to the feed). In either case, current induced on the inside
> of the shield by current flowing on the center conductor loop
> has a continuous back to ground via the outside surface of the
> shield. IOW, the gap doesn't suppress the eddy current, rather
> it forces it to flow on the outside surface of the shield, thereby
> causing the loop to radiate.

Absolutely nothing, neither electic nor magnetic, couplesthrough the
wall of a conductor more than several skin depths thick. This isn't
anything that can be debated, it is simply how it works. It is very
easy to demonstrate, it takes only a few minutes and a minimum of test
equipment.

It is something very basic in physics and underlies how coaxial cables
and things with shields of all types work.

The gap is the feedpoint no matter where the gap is placed. The
radiation and coupling of any time-varying field, magnetic or electric,
occurs on a frequency where the shield is more than a few skin depths
thick comes by the gap.

This is such a very basic thing it is important everyone understand it.

> > I think the handbook has it right.
> >
>
> Yes, I agree it does. If you connect the shield at both ends, the
> loop can't radiate because the eddy current caused by current
> flowing on the inner conductor loop will confined to the inside of
> the shield.

Absolutely. When the gap is closed there is no potential difference
across the gap the outside of the shield is not connected to the inside
of the shield via the potential developed across the gap. The outer
wall is not coupled to the inner wall, the feedpoint is shorted.

When the gap is opened, the outside of the shield IS the antenna. Not the inside or anything inside the inside.

> Likewise, eddy currents induced on the outside of the
> shield by EM waves passing the antenna will be confined to the
> outside of the shield if there is no gap (reciprocity holds - the
> antenna won't receive with no gap).

Again true. This is a very basic thing we must understand if we are to understand how shields, walls, or conductors of any kind or form work with HF currents, voltages, or fields of any type.

There isn't any way to change this effect.

73 Tom

2826. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 10:38:06 UTC
From: Michael Tope <W4EF@comcast.net>
Message-ID: <LJSdnWsj0PiS3u3ZRVn-iA@comcast.com>
Source record: 59168

<w8ji@akorn.net> wrote in message
news:1148204558.861148.41500@j55g2000cwa.googlegroups.com...
>
> Michael Tope wrote:
>>> I am a bit behind on ARRL Handbooks, Richard, but from
>> what you describe, this is the same figure that appears in my
>> 1992 edition (chapter 38, figure 2). In any case, what is
>> shown in the figure agrees with my understanding of "broken",
>> although admittedly when I made my previous post, I was
>> thinking of the case where the shield is broken on the side of
>> the loop opposite the feedpoint. For the purposes of this
>> discussion, however, it doesn't matter whether the break is
>> at the top (opposite the feed) or at the bottom (adjacent
>> to the feed). In either case, current induced on the inside
>> of the shield by current flowing on the center conductor loop
>> has a continuous back to ground via the outside surface of the
>> shield. IOW, the gap doesn't suppress the eddy current, rather
>> it forces it to flow on the outside surface of the shield, thereby
>> causing the loop to radiate.
>
> Absolutely nothing, neither electic nor magnetic, couplesthrough the
> wall of a conductor more than several skin depths thick. This isn't
> anything that can be debated, it is simply how it works. It is very
> easy to demonstrate, it takes only a few minutes and a minimum of test
> equipment.
>

I don't think we disagree on that point, Tom. Perhaps I should
have chosen my words more carefully. I didn't mean to imply
that gap somehow forces the current on the inside of the shield
to pass through shield. When I said that the gap forces the current
to flow on the outside surface of the shield, I meant that in the
sense that the eddy current flows on the inside of the shield until
it reaches the break in the shield at which point the current flow
wraps around the edge of the shield and onto the outside surface
(thereby reversing direction relative to the direction of the eddy
current on the inside of the shield). The skin effect in effect
separates the shield into two distinct conductors, the inner surface
being one conductor and the outer surface of the shield being the
other. The gap is the circuit node where these two independent
conductors are connected. The eddy current flows out of one
conductor (the inner surface of the shield) and into the other
conductor (the outer surface of the shield).

73, Mike W4EF.....

2827. Re: Auto-Tuners with balanced antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 12:41:18 UTC
From: KC1DI <davekc1di@gmail.net>
Message-ID: <e4pn0l$f4h$1@emma.aioe.org>
Source record: 59169

Ed wrote:
> Any recommendations for an automatic tuner that will work well with
> balanced antennas fed with 600 ohm ladder line?
>
> Specifically, I have in mind a 160M dipole fed with ladder line.
>
>
> Ed K7AAT

I use the LDG z100 with and external Balun Works well for me.
73 Dave kc1di

2828. Re: Auto-Tuners with balanced antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 13:01:24 UTC
From: Lew <lew_jean@bellsouth.net>
Message-ID: <bwZbg.51220$Kn4.22422@bignews2.bellsouth.net>
Source record: 59170

I run a SGC ATU to my Dipole with ladder line with no problems

Lew
"KC1DI" <davekc1di@gmail.net> wrote in message
news:e4pn0l$f4h$1@emma.aioe.org...
> Ed wrote:
>> Any recommendations for an automatic tuner that will work well with
>> balanced antennas fed with 600 ohm ladder line?
>>
>> Specifically, I have in mind a 160M dipole fed with ladder line.
>>
>>
>> Ed K7AAT
>
>
> I use the LDG z100 with and external Balun Works well for me.
> 73 Dave kc1di

2829. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 13:22:18 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <50q072h0ell1qfeepqkn3mfrg20spe6v8b@4ax.com>
Source record: 59171

On Tue, 16 May 2006 22:55:13 GMT, "dale.j. " <nos.pamz@nospam.com>
wrote:

>What is the correct way to determine the non-resonant feedline length of
>a multiband doublet using 450 ohm open wire.
>
> tnx
>Dale

I have a 130 foot dipole, about 25' high in the middle, 20' at the
ends, fed with 47' of the Wireman's ladderline, going directly to the
4-1 balun of an old mfj989c tuner. From everything I've read in this
thread, it shouldn't tune worth a darn on 40 meters, but I can get a
1-1 swr match on 40, as well as every other band. I guess all you can
do is put it up and see if it works :-)

One of these days I might try Cecil's idea, a 100 foot feed of
ladderline, but I'd have to string about 50' of that back and forth to
make it work.

bob
k5qwg

2830. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 13:43:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <z8_bg.13144$fb2.7760@newssvr27.news.prodigy.net>
Source record: 59172

dale.j. wrote:
> I'll give the 100 ft a go and let you know.
>
> When you say wind the ladder line around a tag rope, I assume you mean
> to use ties around one wire of the ladder and make the loop maybe a foot
> in diameter or maybe 6 inches? Sort of a helix affair. Would that
> cause a problem with the ladder being so close to the turns?

You are forming 100 ft. of ladder-line into a 50 ft. long helix.
The spacing on the turns will not be a problem as it will be
a very loosely wound helix. Tie a knot in the messenger string
every 10 inches. Anchor one point of the ladder-line to a knot
in the messenger string using black tie-wraps. Take 20 inches of
ladder-line and anchor it at the next knot down from the first knot.
That will give you one turn of the helix. Repeat until you have
a 100 foot feedline. If you didn't want to use tie-wraps, you
could tie the 10 inch spaced knots through the ladder-line every
20 inches of ladder-line.
--
73, Cecil http://www.qsl.net/w5dxp

2831. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 13:49:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ud_bg.13146$fb2.5200@newssvr27.news.prodigy.net>
Source record: 59173

CW wrote:

> Look at his site. Cecil does not use a tuner.
>
> "dale.j. " <nos.pamz@nospam.com> wrote:
>>Doesn't the matchbox do the electrical tuning of the
>> feedline instead of using fixed lengths as you
>>are doing?

When I was using an ICOM-706, I didn't use a tuner. Now
that I have an ICOM-756PRO, I choose a feedline length
that resonates the antenna system in the center of a
band and then use the autotuner for excursions toward
band edges.

Making the feedline a fixed length of 100 ft. and then
using a tuner is somewhat similar to what I am doing now.
--
73, Cecil http://www.qsl.net/w5dxp

2832. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 13:55:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gj_bg.13147$fb2.5777@newssvr27.news.prodigy.net>
Source record: 59174

Owen Duffy wrote:
> It turns out that if a dipole with practical length of open wire
> feeder to an ATU at the tx is less than about 35% of a wavelength,
> system losses increase dramatically with reduced length, so the dipole
> should not be less than about 35% of wavelength at the lowest
> frequency.

Agrees pretty closely with Walter Maxwell's 3/8 wavelength
minimum dipole advice.

> You can see the effect in Fig 2 of my article at
> http://www.vk1od.net/LOLL/index.htm . In that case, the system losses
> with a 66' dipole are acceptable down to about 5.5MHz, for 3.5MHz the
> dipole needs to be greater than 5.5/3.5*66' or 103'.

Agrees pretty closely with the length of a G5RV.
--
73, Cecil http://www.qsl.net/w5dxp

2833. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 14:06:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <jt_bg.13151$fb2.3580@newssvr27.news.prodigy.net>
Source record: 59175

w8ji@akorn.net wrote:
> Absolutely nothing, neither electic nor magnetic, couplesthrough the
> wall of a conductor more than several skin depths thick.

Do 60 Hz magnetic fields penetrate RF coax since
the conductor is not more than several skin depths
thick?
--
73, Cecil http://www.qsl.net/w5dxp

2834. Re: Auto-Tuners with balanced antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 14:08:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ev_bg.13152$fb2.8170@newssvr27.news.prodigy.net>
Source record: 59026

Lew wrote:
> I run a SGC ATU to my Dipole with ladder line with no problems

Isn't that contrary to SGC's recommendations?
--
73, Cecil http://www.qsl.net/w5dxp

2835. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 14:12:34 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <mz_bg.13153$fb2.555@newssvr27.news.prodigy.net>
Source record: 59027

Bob Miller wrote:
> I have a 130 foot dipole, about 25' high in the middle, 20' at the
> ends, fed with 47' of the Wireman's ladderline, going directly to the
> 4-1 balun of an old mfj989c tuner. From everything I've read in this
> thread, it shouldn't tune worth a darn on 40 meters, but I can get a
> 1-1 swr match on 40, as well as every other band.

That "1-1 swr" is on the coax between the tuner and the
transmitter. The SWR on the ladder-line is probably around 12:1.

> One of these days I might try Cecil's idea, a 100 foot feed of
> ladderline, but I'd have to string about 50' of that back and forth to
> make it work.

Please see my other posting. Using a messenger string, tie
wrap 20 inches of ladder-line to every 10 inches of string.
--
73, Cecil http://www.qsl.net/w5dxp

2836. Re: 2.4 GHz Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 14:40:14 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <ena6k3-qc9.ln1@p400bob.personal.cox.net>
Source record: 59029

I'd suggest it isnt worth attempting. The frequency change is more than
3:1 from the original TV use.

There are a lot of simple 2.4GHz designs out there that are worth
looking at.

Cheers Bob VK2YQA

pdrunen@aol.com wrote:
>
> Hi Group,
>
> I looking at convering a TV UHF antenna to 2.4 GHz, the antenna has a
> yagi part with elements spaced every 3 inches and the elements are the
> same lenght of about 3 inches.

2837. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 15:02:48 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-F5AC47.10022621052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59028

In article <OHMbg.29429$4L1.25125@newssvr11.news.prodigy.com>,
Cecil Moore <mycall@hotmail.com> wrote:

> dale.j. wrote:
> > Doesn't the matchbox do the
> > electrical tuning of the feedline instead of using fixed lengths as you
> > are doing?
>
> If it's a Johnson Matchbox, it has a limited tuning range.
> But for dipoles 1/2WL at the lowest frequency of operation,
> feeding in the rough vicinity of the current maximum point
> will work. For 80m and 40m, you might get by with 80 feet
> of feedline.
>
> > I just dug out my Drake MN-2700 user manual and it says to use 135 foot
> > long horizontal fed in the middle with 67 feet of ladder. Weird, this
> > stuff is worse than making a pizza.
>
> If that is for 80m or 40m, the Drake must like very high
> impedances.

I just tacked on additional ladder line for a total of 91 feet, it's
draped all over the place. The matchbox tunes more difficult on 75 M
but tuned right up on 40. The matchbox controls are skewed quite a ways
off the center point. tuning control is at 26 and match is about 15 so
it does not seem to like this length any better. I could tack on
another 15 feet but then I'd have to lay it on the ground which is not
good. I could shorten up the original 67 feet to perhaps 50 plus but
that would make it worse?

The Drake MN2700 uses a 4 to 1 balun for matching ladder line. I use my
Johnson KW matchbox for the ladder line.

--
Email: dalej2@mac.com

2838. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 15:58:25 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <me3172takm8rdp1h8nk710uj5af22lcoht@4ax.com>
Source record: 59030

On Sun, 21 May 2006 14:12:34 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Bob Miller wrote:
>> I have a 130 foot dipole, about 25' high in the middle, 20' at the
>> ends, fed with 47' of the Wireman's ladderline, going directly to the
>> 4-1 balun of an old mfj989c tuner. From everything I've read in this
>> thread, it shouldn't tune worth a darn on 40 meters, but I can get a
>> 1-1 swr match on 40, as well as every other band.
>
>That "1-1 swr" is on the coax between the tuner and the
>transmitter. The SWR on the ladder-line is probably around 12:1.
>
>> One of these days I might try Cecil's idea, a 100 foot feed of
>> ladderline, but I'd have to string about 50' of that back and forth to
>> make it work.
>
>Please see my other posting. Using a messenger string, tie
>wrap 20 inches of ladder-line to every 10 inches of string.

If I were to use W7FG's 600-ohm line, would 100' still be a good
length?

bob
k5qwg

2839. Re: 2.4 GHz Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 16:14:30 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <Gl0cg.3350$p13.2229@trnddc07>
Source record: 59031

<pdrunen@aol.com> wrote in message
news:1148186964.790355.140740@i39g2000cwa.googlegroups.com...
> Hi Group,
>
> I looking at convering a TV UHF antenna to 2.4 GHz, the antenna has a
> yagi part with elements spaced every 3 inches and the elements are the
> same lenght of about 3 inches.
>
> I think the 3 inch element lenght are a little long, and the elements
> need to be cut so that one of them is the reflector and one as a driven
> elements and the others would be come directors. There are about 10
> elements on this boom.
>
> The element spacing, 3 inches most likely will do OK ? comments?
>
> A look in the handbook for 2.4 GHz antenna, either they don't include
> them or I missed them. I have several old handbooks and ARRL antenna
> books.
>
> So, would as anyone who has some of the basic dimensions to pass that
> along.
>
> Also concerned that the frequency will require a SMA or Type-N and
> matching, I don't have a means to check the SWR.
>
> De KJ4UO

Hi KJ4UO

I assume that you dont have alot of experience with designing and building Yagi antennas. If you have no test equipment for testing at 2.4 GHz, you will undoubtedly be at the mercy of luck, good or bad.
If your goal is to have a WiFi yagi, there are affordable Yagi antennas available for less than $100.00.
If your goal is to build your own WiFi antenna, I'd suggest you consider using other than a Yagi. You have probably searched the web and know about the cantenna. And, a small satellite TV dish is easy to convert to 2.4 GHz.

Jerry

2840. Re: 2.4 GHz Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 16:21:52 UTC
From: RST Engineering <jim@rstengineering.com>
Message-ID: <d0b7f$4470939d$4251288c$13759@DIALUPUSA.NET>
Source record: 59032

Is there a URL where this is discussed?

Jim

And, a small satellite TV dish is easy to convert to 2.4
> GHz.
>
> Jerry
>

2841. Re: 2.4 GHz Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 17:23:13 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <5m1cg.3505$p13.1333@trnddc07>
Source record: 59033

Hi Jim

I got all my feed point info from Trevor Marshall's web site.
http://www.trevormarshall.com/biquad.htm

Jerry

"RST Engineering" <jim@rstengineering.com> wrote in message
news:d0b7f$4470939d$4251288c$13759@DIALUPUSA.NET...
> Is there a URL where this is discussed?
>
> Jim
>
>
> And, a small satellite TV dish is easy to convert to 2.4
>> GHz.
>>
>> Jerry
>>
>
>

2842. Re: HF broadcasting antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 18:03:00 UTC
From: mzenier@eskimo.com
Message-ID: <e4qnem$dl6$1@eskinews.eskimo.com>
Source record: 59047
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

In article <5s84k3-2id.ln1@remote.clifto.com>,
clifto <clifto@gmail.com> wrote:
>sipa wrote:
>> First please excuse me for my bad english.
>
>1. Your English is far better than my Hungarian.

I think .hr is Croatia.

Mark Zenier mzenier@eskimo.com
Googleproofaddress(account:mzenier provider:eskimo domain:com)

2843. Re: Auto-Tuners with balanced antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 18:07:22 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-0ECB93.10080521052006@netnews.worldnet.att.net>
Source record: 59034

In article <ev_bg.13152$fb2.8170@newssvr27.news.prodigy.net>,
Cecil Moore <mycall@hotmail.com> wrote:

> Lew wrote:
> > I run a SGC ATU to my Dipole with ladder line with no problems
>
> Isn't that contrary to SGC's recommendations?

Only if you believe that SGC, has a CLUE about how their autotuner
works, and the design of the firmware that runs it.....

Me

2844. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 18:32:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Ym2cg.75305$F_3.1505@newssvr29.news.prodigy.net>
Source record: 59035

Bob Miller wrote:
> If I were to use W7FG's 600-ohm line, would 100' still be a good
> length?

I don't know. If you have EZNEC, it can tell you.
--
73, Cecil http://www.qsl.net/w5dxp

2845. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 19:49:49 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <xv3cg.5298$y4.1997@newsread2.news.pas.earthlink.net>
Source record: 59036
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"an old friend" <kb9rqz@yahoo.com> wrote in message
news:1148093850.852066.18100@u72g2000cwu.googlegroups.com...
>
> Dan/W4NTI wrote:
>> "an_old_friend" <konstans@hotmail.com> wrote in message
>> news:1147832357.964390.122730@i40g2000cwc.googlegroups.com...
>> >
>> > Dan/W4NTI wrote:
>> >> "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
>> >> news:38c8.gop.17.1@news.alt.net...
>> >
>> >> 4
>> >
>> > this is not a golfign NG dan I would expect you topay attention but you
>> > insit on disappointing me
>> >>
>> >> Dan/W4NTI
>> >
>>
>> Try a spell check you goofball.
> why?
>> I don't give a damn if you are dyslexic or
>> not. That does not preclude you using a spell checker.
>
> never made anysuch claim
>
> I keep asing you what right you have to make such a demnd you keep not
> nswering
>
>
>>
>> Dan/W4NTI
>

Oh, your not dyslexic then? So that means your what? Ignorant ? Not
properly schooled? Or just a common drunk or dope addict that gets worse as
the night goes on?

Dan/W4NTI
```

2846. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 19:54:36 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-9C4E96.14541321052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59037

In article <z8_bg.13144$fb2.7760@newssvr27.news.prodigy.net>,
Cecil Moore <mycall@hotmail.com> wrote:

> dale.j. wrote:
> > I'll give the 100 ft a go and let you know.
> >
> > When you say wind the ladder line around a tag rope, I assume you mean
> > to use ties around one wire of the ladder and make the loop maybe a foot
> > in diameter or maybe 6 inches? Sort of a helix affair. Would that
> > cause a problem with the ladder being so close to the turns?
>
> You are forming 100 ft. of ladder-line into a 50 ft. long helix.
> The spacing on the turns will not be a problem as it will be
> a very loosely wound helix. Tie a knot in the messenger string
> every 10 inches. Anchor one point of the ladder-line to a knot
> in the messenger string using black tie-wraps. Take 20 inches of
> ladder-line and anchor it at the next knot down from the first knot.
> That will give you one turn of the helix. Repeat until you have
> a 100 foot feedline. If you didn't want to use tie-wraps, you
> could tie the 10 inch spaced knots through the ladder-line every
> 20 inches of ladder-line.

I just dug out my Practical Wire Antennas book by John Heys, G3BDQ,
RSGB 1989, P. 16 & 17 "centre-fed antennas using tuned feedlines", and
it collaborates the information in my old ARRL 1960 handbook which says
to calculate one half of the horizontal wire plus the feedline length
and that total number should not equal certain critical lengths one of
which is 160 feet on 3.6 Mhz, there are more. I hate to beat this to
death, but frankly I don't think any of us has a clear understanding of
this antenna.

Dalej.

--
Email: dalej2@mac.com

2847. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 20:12:33 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1148242353.491923.5580@u72g2000cwu.googlegroups.com>
Source record: 59038
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Dan/W4NTI wrote:
> "an old friend" <kb9rqz@yahoo.com> wrote in message
> news:1148093850.852066.18100@u72g2000cwu.googlegroups.com...
> >
> > Dan/W4NTI wrote:
> >> "an_old_friend" <konstans@hotmail.com> wrote in message
> >> news:1147832357.964390.122730@i40g2000cwc.googlegroups.com...
> >> >
> >> > Dan/W4NTI wrote:
> >> >> "Not Lloyd II" <CurtainsBoy@Glendale.up> wrote in message
> >> >> news:38c8.gop.17.1@news.alt.net...
> >> >
> >> >> 4
> >> >
> >> > this is not a golfign NG dan I would expect you topay attention but you
> >> > insit on disappointing me
> >> >>
> >> >> Dan/W4NTI
> >> >
> >>
> >> Try a spell check you goofball.
> > why?
> >> I don't give a damn if you are dyslexic or
> >> not. That does not preclude you using a spell checker.
> >
> > never made anysuch claim
> >
> > I keep asing you what right you have to make such a demnd you keep not
> > nswering
> >
> >
> >>
> >> Dan/W4NTI
> >
>
> Oh, your not dyslexic then?
no I did not say that Dane you realy should try reading a post I said I
made noclaim (in resposne your claim that I had claimed dyslexia
prevented me from using a spell chekcer
```

when are you goign to learn to read Dan?
> So that means your what?
dyslexic and that I refused to be bullied by you
> Ignorant ?
nope
> Not
> properly schooled?
by your standards very likely

but you do think think more code is a measure of rain funtction too
> Or just a common drunk or dope addict that gets worse as
> the night goes on?
more libel

how drool Dan
>
> Dan/W4NTI

2848. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 20:24:19 UTC
From: pltrgyst <pltrgyst@spamlessxhost.org>
Message-ID: <p1j1729noc9djlhlbdk15q4q95asf8kea9@4ax.com>
Source record: 59039
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

The thread-ending clincher: if it weren't for cw, no one would understand
today's (5/21/2006) Foxtrot cartoon.

-- Larry

2849. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 20:30:55 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1148243455.816046.132970@j73g2000cwa.googlegroups.com>
Source record: 59041
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
pltrgyst wrote:
> The thread-ending clincher: if it weren't for cw, no one would understand
> today's (5/21/2006) Foxtrot cartoon.
>
> -- Larry

well that is certainly clear enough
```

2850. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 20:30:57 UTC
From: Lloyd <lloyd@no.spammmmm>
Message-ID: <DRL017833.2458F8789@tarrnews.net>
Source record: 59040
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
On 21 May 2006 13:12:33 -0700, an old friend drooled:
> Dan/W4NTI wrote:
> > Or just a common drunk or dope addict that gets worse as
> > the night goes on?
> more libel
>
> how drool Dan

Dan doesn't drool. Right, Dan?
```

2851. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 20:47:25 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <hqj172lg2vopl6grk1j8e8ks4a960bb0pl@4ax.com>
Source record: 59042

On Sun, 21 May 2006 01:12:16 GMT, Owen Duffy <owen@no.where> wrote:

>... It certainly presents the
>worst case feedline VSWR on 7MHz, the highest feedline voltage (>2500V
>peak at 1kW), though the transmission line loss for 90' of 551 is only
>0.6dB in the above scenario.

When I read that in the clarity of a new day, I can see that is not
correct as written, I should have said:

It certainly presents the worst case feedpoint impedance at 7MHz, the
highest feedpoint voltage (>2500V peak at 1kW), though the
transmission line loss for 90' of 551 is only 0.6dB in the above
scenario. (A shorter dipole may result in higher voltage along the
feedline, and higher feedline loss, depending on the lengths of each
of dipole and feedline.)

Owen
--

2852. Re: Auto-Tuners with balanced antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 20:59:04 UTC
From: Alan WA4SCA <APBIDDLE@UNITED.NET>
Message-ID: <7vk172l0050bo0b4e8rm02n7mrlonn1r81@4ax.com>
Source record: 59043

Ed,

Take a look at http://www.hamware.de/index.html Just got back from Dayton, and the ones on display looked solidly built, though that is no indication of how well they actually work. Eham has some positive reviews of an earlier model. No personal experience.

--
Alan
WA4SCA

2853. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 21:07:22 UTC
From: richardharrison@webtv.net
Message-ID: <21360-4470D68A-1590@storefull-3257.bay.webtv.net>
Source record: 59044

Tom, W8JI wrote:
"Absolutely nothing, neither electric nor magnetic, couples through the wall of a conductor several skin depths thick."

That`s wrong for a "Faraday screen".

Terman is right. At the bottom of page 38 of his 1955 edition he writes: "It is possible to shield electrostatic flux without simultaneously affecting the magnetic field by surrounding the space to be shielded with a conducting cage that is made in such a way as to provide no low-resistance path for the flow of eddy currents, while at the same time offering a metallic terminal upon which electrostatic flux lines can terminate."

An example exists in the AM broadcast stations I`ve worked in. Every tower was coupled to its transmission line through a 1:1 air-core traansformer. Two identical single-layer solenoids sharing the same axis. Between the coils was a metal picket fence. One end of the pickets was firmly grounded to the coupling cabinet. The other end of all pickets was an open circuit. Electric lines of force were intercepted by the pickets and directly shorted to ground. However, the fences had no effect on the magnetic coupling between them because the open circuit at the ends of the pickets prevented circulating currents which would have opposed magnetic coupling according to Lenz`s law.

Voila! Magnetic coupling but no electrostatic coupling between coils of a transformer.

It`s time for W8JI to turn-off his misinformation machine.

Best regards, Richard Harrison, KB5WZI

2854. seperation in lie of a duplexer at 222 mhz band

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 21:17:19 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1148246239.775059.271390@u72g2000cwu.googlegroups.com>
Source record: 59045

haing gotten many of the peices of a 222 band repater and wanting to
put it on the air how much sepertion is required to avoid a paying the
price of a duplexer at 22 band

any assiatnce welcome

2855. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 21:50:32 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <mlk172lj3pdhqt33qla581r09r5qedbngk@4ax.com>
Source record: 59046

On Sun, 21 May 2006 19:54:36 GMT, "dale.j. " <nos.pamz@nospam.com>
wrote:

>In article <z8_bg.13144$fb2.7760@newssvr27.news.prodigy.net>,
> Cecil Moore <mycall@hotmail.com> wrote:
>

>
>I just dug out my Practical Wire Antennas book by John Heys, G3BDQ,
>RSGB 1989, P. 16 & 17 "centre-fed antennas using tuned feedlines", and
>it collaborates the information in my old ARRL 1960 handbook which says
>to calculate one half of the horizontal wire plus the feedline length
>and that total number should not equal certain critical lengths one of

As has been noted in several posts, this is not a new approach.

The approach seeks to avoid length combinations that result in the
impedance maximums at desired operating frequencies, whether or not
those impedance maximums are ok for the ATU.

It is an approximation in several ways, including that it does not
consider the velocity factor of the transmission line, it does not
consider the effects of the environment on the impedance at the feed
point of the radiator, it assumes that higher order modes are exactly
harmonically related.

So, even then, the lengths indicated as undesirable may have
significant error incorporated.

Let's look at an example:

Consider a model of a 40m dipole of length 20.12m at 10m above average
ground, and I want to use it at 28MHz with Wireman 551 feedline of 20m
(or greater).

The wavelength at 28MHz is 10.7m, so your method would suggest that
3*10.7 or 32.1m is a "total" length to avoid, meaning that a feedline
of 32.1-20.12/2m or 22.04m is the feed length to avoid.

At this "undesirable length", the model yields a load impedance of
82+j58 which should not be particularly troublesome to most tuners at
28MHz.

In fact the corresponding modelled voltage maximum occurs with a
feedline of 19.4m (not at 22.04m), so the method is 2.64m or 12% in
error in this example. The next voltage maximum occurs at feedline
length of 24.2m, so the forecast undesirable length is roughly in the
middle of these two lengths, and about as far as you can get (ie the

most error) from the modelled voltage maxima.

>which is 160 feet on 3.6 Mhz, there are more. I hate to beat this to
>death, but frankly I don't think any of us has a clear understanding of
>this antenna.

You don't understand it, so no one else does? I have got the picture.

Owen
--

2856. Re: seperation in lie of a duplexer at 222 mhz band

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 22:07:47 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <e4o172hrtj8m3cqctduff23qjjje6dl1iu@4ax.com>
Source record: 59048

On 21 May 2006 14:17:19 -0700, "an old friend" <kb9rqz@yahoo.com>
wrote:

>haing gotten many of the peices of a 222 band repater and wanting to
>put it on the air how much sepertion is required to avoid a paying the
>price of a duplexer at 22 band
>
>any assiatnce welcome

Depending on the transmitter and receiver type, good ones will require
around 75 to 85 db of isolation at least.

30 feet of vertical seperation of antennas will give around 60 db of
isolation.
60 feet of vertical isolation may give around 70 db of isolation.
After that it starts to flatten out.

600 feet of horizontal seperation will give around 60 db of isolation.
It will take doubling the distance for an additional each 6 db of
isolation

73
Gary K4FMX

2857. Re: seperation in lie of a duplexer at 222 mhz band

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 22:13:32 UTC
From: dplatt@radagast.org
Message-ID: <1271pgcl22ihl42@corp.supernews.com>
Source record: 59049

In article <1148246239.775059.271390@u72g2000cwu.googlegroups.com>,
an old friend <kb9rqz@yahoo.com> wrote:

>haing gotten many of the peices of a 222 band repater and wanting to
>put it on the air how much sepertion is required to avoid a paying the
>price of a duplexer at 22 band

That depends to some extent on the design of your receiver. Different designs have different RF-signal thresholds at which front-end desensitization will become a problem. A receiver with a broadly-tuned front end (e.g. some converted Motorola radios, most mobile ham rigs) is likely to be more prone to desense than a dedicated single-frequency receiver board having several stages of narrowly-tuned helical resonator in the RF chain.

It'll also depend on how clean your transmitter is. Broadband noise and spurs from the transmitter can cause problems for the receiver by "swamping" the desired signal with noise, independent of whatever desensitization the main transmit signal causes to the receiver front-end.

My old copy of ARRL's "FM and Repeaters" book (copyright 1972) suggests that approximately 58 dB of attenuation is required for a 600 kHz transmit/receive offset. They don't give a suggested figure for the wider 1.6 MHz offset used on the 222 band.

According to the graphs in this book, achieving 58 dB of attenuation, on the 222 band, requires approximately 20 feet of vertical separation between antennas, or approximately 100 feet of horizontal separation, assuming unity-gain antennas (e.g. halfwave dipoles). You'd need greater horizontal separation when using antennas with gain over a halfwave. You might be able to get by with less vertical separation if using gain antennas, depending on the actual pattern, feedline radiation, local reflections, and so forth.

You might want to Google around for articles which show a method for homebrewing a duplexer, using a length of surplus large-diameter hardline coaxial cable as the resonator. These have apparently been used for several years on the 6-meter band, and I recently saw a Heliax notch/pass resonator which was made for a local 2-meter repeater (it adds one additional section of receive filtering/isolation to a repeater which uses a single antenna and a commercially-built two-transmit-can, two-receive-can duplexer). The Q of such Heliax-based resonators is lower than that of conventional cans, and the insertion losses are higher.

If you don't want to install a full-fledged duplexer and use a single antenna, you might try something like a pair of 222 antennas with 20 foot or more of vertical separation, plus one band-reject (or band-pass band-reject) Heliax resonator on each one.

http://www.dallas.net/~jvpoll/dup6m/dup6m.html would be one place to start looking.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

2858. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 23:00:28 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-574DAC.18000521052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59050

In article <mlk172lj3pdhqt33qla581r09r5qedbngk@4ax.com>,
Owen Duffy <owen@no.where> wrote:

> On Sun, 21 May 2006 19:54:36 GMT, "dale.j. " <nos.pamz@nospam.com>
> wrote:
>
> >In article <z8_bg.13144$fb2.7760@newssvr27.news.prodigy.net>,
> > Cecil Moore <mycall@hotmail.com> wrote:
> >
>
> >
> >I just dug out my Practical Wire Antennas book by John Heys, G3BDQ,
> >RSGB 1989, P. 16 & 17 "centre-fed antennas using tuned feedlines", and
> >it collaborates the information in my old ARRL 1960 handbook which says
> >to calculate one half of the horizontal wire plus the feedline length
> >and that total number should not equal certain critical lengths one of
>
> As has been noted in several posts, this is not a new approach.
>
> The approach seeks to avoid length combinations that result in the
> impedance maximums at desired operating frequencies, whether or not
> those impedance maximums are ok for the ATU.
>
> It is an approximation in several ways, including that it does not
> consider the velocity factor of the transmission line, it does not
> consider the effects of the environment on the impedance at the feed
> point of the radiator, it assumes that higher order modes are exactly
> harmonically related.
>
> So, even then, the lengths indicated as undesirable may have
> significant error incorporated.
>
> Let's look at an example:
>
> Consider a model of a 40m dipole of length 20.12m at 10m above average
> ground, and I want to use it at 28MHz with Wireman 551 feedline of 20m
> (or greater).
>
> The wavelength at 28MHz is 10.7m, so your method would suggest that
> 3*10.7 or 32.1m is a "total" length to avoid, meaning that a feedline
> of 32.1-20.12/2m or 22.04m is the feed length to avoid.
>
> At this "undesirable length", the model yields a load impedance of
> 82+j58 which should not be particularly troublesome to most tuners at

> 28MHz.
>
> In fact the corresponding modelled voltage maximum occurs with a
> feedline of 19.4m (not at 22.04m), so the method is 2.64m or 12% in
> error in this example. The next voltage maximum occurs at feedline
> length of 24.2m, so the forecast undesirable length is roughly in the
> middle of these two lengths, and about as far as you can get (ie the
> most error) from the modelled voltage maxima.
>
> >which is 160 feet on 3.6 Mhz, there are more. I hate to beat this to
> >death, but frankly I don't think any of us has a clear understanding of
> >this antenna.
>
> You don't understand it, so no one else does? I have got the picture.
>
> Owen
> --

With all the J factoring ect I tend to get a bit intimidated. Then I go
back to the books from years ago. I don't have EZnec.

Dalej.

--
Email: dalej2@mac.com

2859. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 23:16:53 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <g3t172tmmb8t25sbiu6h38h2sqvbefua9c@4ax.com>
Source record: 59051
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

On Sat, 20 May 2006 15:15:39 -0700, "Sal M. Onella"
<salmonella@food.poisoning.org> wrote:

>
>
>
>> > I am quite sure that they all got their tickets with CW
>> > required. And the problem stations on 75 are quite the same. Which
>> > also proves nothing either way.
>>
>> it does prove that CW testing is at best poor proof of screening out
>> bad ops
>
>There's no test for one important ham skill: typing. I didn't appreciate
>how important it is until I learned that one of my pro-Morse buddies does
>all of his sending with a computer. (He can send with a key but doesn't
>know where his is.) He says he copies with the computer, too, although he
>can follow along with the audio.
>
>I asked around and found this practice is far from rare; I'm not sure
>"common" is the right word, though.
>
>We also might want to test for basic language skills, including punctuation.
>While it's not always true, the disagreeable transmissions (and NG posts)
>often make the speakers/writers sound pretty ignorant.

In that case how about testing for personality traits as well as
anti-social and anti-authoritarian behavior? <:-))

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>

2860. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 23:30:37 UTC
From: Lloyd <Lloyd@namtcrtnet.org>
Message-ID: <nim8.nae.17.1@news.alt.net>
Source record: 59052
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

Which "Roger" are you?

"Roger" <Delete-Invallid.stuff.groups@tm.net> wrote in message
news:g3t172tmmb8t25sbiu6h38h2sqvbefua9c@4ax.com...
> On Sat, 20 May 2006 15:15:39 -0700, "Sal M. Onella"
> <salmonella@food.poisoning.org> wrote:
>
>>
>>
>>
>>> > I am quite sure that they all got their tickets with CW
>>> > required. And the problem stations on 75 are quite the same. Which
>>> > also proves nothing either way.
>>>
>>> it does prove that CW testing is at best poor proof of screening out
>>> bad ops
>>
>>There's no test for one important ham skill: typing. I didn't appreciate
>>how important it is until I learned that one of my pro-Morse buddies does
>>all of his sending with a computer. (He can send with a key but doesn't
>>know where his is.) He says he copies with the computer, too, although he
>>can follow along with the audio.
>>
>>I asked around and found this practice is far from rare; I'm not sure
>>"common" is the right word, though.
>>
>>We also might want to test for basic language skills, including
>>punctuation.
>>While it's not always true, the disagreeable transmissions (and NG posts)
>>often make the speakers/writers sound pretty ignorant.
>
> In that case how about testing for personality traits as well as
> anti-social and anti-authoritarian behavior? <:-))
>
> Roger Halstead (K8RI & ARRL life member)
> (N833R, S# CD-2 Worlds oldest Debonair)
> www.rogerhalstead.com
>
>
>>

2861. Re: 2.4 GHz Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-21 23:58:00 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <SuqdnQqfS7TtY-3ZnZ2dnUVZ_vmdnZ2d@comcast.com>
Source record: 59053

<pdrunen@aol.com> wrote in message
news:1148186964.790355.140740@i39g2000cwa.googlegroups.com...
> Hi Group,
>
> I looking at convering a TV UHF antenna to 2.4 GHz, the antenna has a
> yagi part with elements spaced every 3 inches and the elements are the
> same lenght of about 3 inches.
>
> I think the 3 inch element lenght are a little long, and the elements
> need to be cut so that one of them is the reflector and one as a driven
> elements and the others would be come directors. There are about 10
> elements on this boom.
>
> The element spacing, 3 inches most likely will do OK ? comments?
>
> A look in the handbook for 2.4 GHz antenna, either they don't include
> them or I missed them. I have several old handbooks and ARRL antenna
> books.
>
> So, would as anyone who has some of the basic dimensions to pass that
> along.
>
> Also concerned that the frequency will require a SMA or Type-N and
> matching, I don't have a means to check the SWR.
>
> De KJ4UO
>
We had need for an antenna like that a few years ago, and bought a loop Yagi
from www.downeastmicrowave.com . No doubt similiar antennas are available in
DJ land. The one I bought had something like 80 elements on about a 3 - 4
meter boom. Price was ~U$120. Converting a TV antenna does not seem
worthwhile.

Tam/WB2TT

2862. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 00:07:58 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <Xh7cg.1170$w05.773@fe10.lga>
Source record: 59054

Richard,
"this can't be" because "gurus" know otherwise.
Why do you hate Tom? You don't like anything he says on his "myth overturning" web pages. He describes in a such detail and explains that "shield is an antenna" - why don't you get it? :-))))
According to Tom, RF gets induced on the outside "wire" of the shield, then it crolls to the "inside" wire of the shield around the edge of the tubing and sees another wire and jumps over, and then to coax.
If tubing or shield was the antenna, then it would receive DX and near field signals the same way. The fact that shield is shielding the near field signals should make any guru wonder.
There was ZS1 on TopBand reflector reporting that he used shielded loop and other loop antennas, and shielded loop was the only one that suppressed the local TV birdies. Tom "explained" to him "how things work" and he apologized that he did not mean to have this as an example of what I was saying.

There are other examples where shield "doesn't shield" - like link coupling made of coax with end shield open and center conductor soldered to the shield. As I mentioned I have magnetothermia machine that produces about 200W from single shielded loop, according to Tom, it should be frying the coax in the gap, with all that RF power trying to make the corner :-)

There is more nonsense on his web site.

73 Yuri, K3BU

"Richard Harrison" <richardharrison@webtv.net> wrote in message news:21360-4470D68A-1590@storefull-3257.bay.webtv.net...
> Tom, W8JI wrote:
> "Absolutely nothing, neither electric nor magnetic, couples through the
> wall of a conductor several skin depths thick."
>
> That`s wrong for a "Faraday screen".
>
> Terman is right. At the bottom of page 38 of his 1955 edition he writes:
> "It is possible to shield electrostatic flux without simultaneously
> affecting the magnetic field by surrounding the space to be shielded
> with a conducting cage that is made in such a way as to provide no
> low-resistance path for the flow of eddy currents, while at the same
> time offering a metallic terminal upon which electrostatic flux lines
> can terminate."
>
> An example exists in the AM broadcast stations I`ve worked in. Every
> tower was coupled to its transmission line through a 1:1 air-core
> traansformer. Two identical single-layer solenoids sharing the same

> axis. Between the coils was a metal picket fence. One end of the pickets
> was firmly grounded to the coupling cabinet. The other end of all
> pickets was an open circuit. Electric lines of force were intercepted by
> the pickets and directly shorted to ground. However, the fences had no
> effect on the magnetic coupling between them because the open circuit at
> the ends of the pickets prevented circulating currents which would have
> opposed magnetic coupling according to Lenz`s law.
>
> Voila! Magnetic coupling but no electrostatic coupling between coils of
> a transformer.
>
> It`s time for W8JI to turn-off his misinformation machine.
>
> Best regards, Richard Harrison, KB5WZI
>

2863. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 00:35:42 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <yH7cg.140988$eR6.96880@bgtnsc04-news.ops.worldnet.att.net>
Source record: 59055

Richard,

Think again about what you wrote. The "Faraday screen" is full of openings between the wires of the picket fence. There is no evidence that anything magnetic or electric penetrates the walls of the conductors beyond a very shallow layer.

Terman certainly did not deny the existence of skin effect that keeps the fields out of the interior of conductors.

73,
Gene
W4SZ

Richard Harrison wrote:
> Tom, W8JI wrote:
> "Absolutely nothing, neither electric nor magnetic, couples through the
> wall of a conductor several skin depths thick."
>
> That`s wrong for a "Faraday screen".
>
> Terman is right. At the bottom of page 38 of his 1955 edition he writes:
> "It is possible to shield electrostatic flux without simultaneously
> affecting the magnetic field by surrounding the space to be shielded
> with a conducting cage that is made in such a way as to provide no
> low-resistance path for the flow of eddy currents, while at the same
> time offering a metallic terminal upon which electrostatic flux lines
> can terminate."
>
> An example exists in the AM broadcast stations I`ve worked in. Every
> tower was coupled to its transmission line through a 1:1 air-core
> traansformer. Two identical single-layer solenoids sharing the same
> axis. Between the coils was a metal picket fence. One end of the pickets
> was firmly grounded to the coupling cabinet. The other end of all
> pickets was an open circuit. Electric lines of force were intercepted by
> the pickets and directly shorted to ground. However, the fences had no
> effect on the magnetic coupling between them because the open circuit at
> the ends of the pickets prevented circulating currents which would have
> opposed magnetic coupling according to Lenz`s law.
>
> Voila! Magnetic coupling but no electrostatic coupling between coils of
> a transformer.
>
> It`s time for W8JI to turn-off his misinformation machine.
>

> Best regards, Richard Harrison, KB5WZI
>

2864. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 00:42:12 UTC
From: Michael Tope <W4EF@comcast.net>
Message-ID: <tL2dnYM6ZZ55lezZnZ2dnUVZ_tKdnZ2d@comcast.com>
Source record: 59056

"Yuri Blanarovich" <K3BU@optonline.net> wrote in message
news:Xh7cg.1170$w05.773@fe10.lga...

> There are other examples where shield "doesn't shield" - like link
> coupling made of coax with end shield open and center conductor soldered
> to the shield. As I mentioned I have magnetothermia machine that produces
> about 200W from single shielded loop, according to Tom, it should be
> frying the coax in the gap, with all that RF power trying to make the
> corner :-)
>

Yuri, think about how the "link coupling" magnetic loop you describe
above works. When the loop is energized where does the RF current
leaving the center conductor go? It has to flow onto the outside of the
shield. Where else could it go?

RF current "makes the corner" around to the outside surface of the
shield in coax all the time. If it didn't we wouldn't need choke
balun's.

73, Mike
W4EF.....

2865. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 00:42:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <QN7cg.20524$Lm5.631@newssvr12.news.prodigy.com>
Source record: 59057

dale.j. wrote:
> I just dug out my Practical Wire Antennas book by John Heys, G3BDQ,
> RSGB 1989, P. 16 & 17 "centre-fed antennas using tuned feedlines", and
> it collaborates the information in my old ARRL 1960 handbook which says
> to calculate one half of the horizontal wire plus the feedline length
> and that total number should not equal certain critical lengths one of
> which is 160 feet on 3.6 Mhz, there are more. I hate to beat this to
> death, but frankly I don't think any of us has a clear understanding of
> this antenna.

EZNEC can solve the problem. EZNEC was not available to the
1960 hams. Let's take a 130 foot dipole on 3.6 MHz with
95 feet of 450 ohm ladder-line with a velocity factor of
0.9. 65+95=160 The impedance seen by the tuner is 100-j400.
Virtually every tuner in the world should be able to match
that impedance. The antenna system is resonant around 4 MHz.
The free demo version of EZNEC is available at:
http://www.eznec.com

How does the 1960 ARRL handbook handle velocity factor?
--
73, Cecil http://www.qsl.net/w5dxp

2866. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 00:46:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <nR7cg.20525$Lm5.4491@newssvr12.news.prodigy.com>
Source record: 59058

dale.j. wrote:
> With all the J factoring ect I tend to get a bit intimidated. Then I go
> back to the books from years ago. I don't have EZnec.

The free demo version will do what you need done.
It is available at: http://www.eznec.com
--
73, Cecil http://www.qsl.net/w5dxp

2867. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 01:23:08 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-9647B8.20224521052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59059

In article <nR7cg.20525$Lm5.4491@newssvr12.news.prodigy.com>,
Cecil Moore <mycall@hotmail.com> wrote:

> dale.j. wrote:
> > With all the J factoring ect I tend to get a bit intimidated. Then I go
> > back to the books from years ago. I don't have EZnec.
>
> The free demo version will do what you need done.
> It is available at: http://www.eznec.com

OSX don't do executables and I'm not switching to windows. I'll just
struggle along with my musty old books.

Dalej.

--
Email: dalej2@mac.com

2868. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 01:31:58 UTC
From: Dan Richardson <>
Message-ID: <l35272dj1m4f9p8o567mnolub2i2l9qrv0@4ax.com>
Source record: 59060

On Mon, 22 May 2006 01:23:08 GMT, "dale.j. " <nos.pamz@nospam.com>
wrote:

>OSX don't do executables and I'm not switching to windows. I'll just
>struggle along with my musty old books.

You can lead a hourse to water but you can't ....

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2869. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 02:46:03 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <12729e4e160k0f5@corp.supernews.com>
Source record: 59061
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
I intend to post the cartoon on my door. Several in my department will
understand. 73 Mac N8TT

s:p1j1729noc9djlhlbdk15q4q95asf8kea9@4ax.com...
> The thread-ending clincher: if it weren't for cw, no one would understand
> today's (5/21/2006) Foxtrot cartoon.
>
> -- Larry
>
```

2870. Re: seperation in lie of a duplexer at 222 mhz band

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 02:54:45 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148266485.066932.188610@i39g2000cwa.googlegroups.com>
Source record: 59062

Dave Platt wrote:
> In article <1148246239.775059.271390@u72g2000cwu.googlegroups.com>,
> an old friend <kb9rqz@yahoo.com> wrote:
>
> >haing gotten many of the peices of a 222 band repater and wanting to
> >put it on the air how much sepertion is required to avoid a paying the
> >price of a duplexer at 22 band
cut for brevity
> My old copy of ARRL's "FM and Repeaters" book (copyright 1972)
> suggests that approximately 58 dB of attenuation is required for a 600
> kHz transmit/receive offset. They don't give a suggested figure for
> the wider 1.6 MHz offset used on the 222 band.
>
> According to the graphs in this book, achieving 58 dB of attenuation,
> on the 222 band, requires approximately 20 feet of vertical separation
> between antennas, or approximately 100 feet of horizontal separation,
> assuming unity-gain antennas (e.g. halfwave dipoles). You'd need
> greater horizontal separation when using antennas with gain over a
> halfwave. You might be able to get by with less vertical separation
> if using gain antennas, depending on the actual pattern, feedline
> radiation, local reflections, and so forth.
ty for that given the proposed is a pair of disused grain silos 80 feet
a part I was thinking horizontal sepertion (frankly had not considered
vertical at all or i would have made that
>
> You might want to Google around for articles which show a method for
> homebrewing a duplexer, using a length of surplus large-diameter
> hardline coaxial cable as the resonator. These have apparently been
> used for several years on the 6-meter band, and I recently saw a
> Heliax notch/pass resonator which was made for a local 2-meter
> repeater (it adds one additional section of receive
> filtering/isolation to a repeater which uses a single antenna and a
> commercially-built two-transmit-can, two-receive-can duplexer). The Q
> of such Heliax-based resonators is lower than that of conventional
> cans, and the insertion losses are higher.
>
> If you don't want to install a full-fledged duplexer and use a single
> antenna, you might try something like a pair of 222 antennas with 20
> foot or more of vertical separation, plus one band-reject (or
> band-pass band-reject) Heliax resonator on each one.
>
> http://www.dallas.net/~jvpoll/dup6m/dup6m.html would be one place to
> start looking.
I had read something of that but have never been any good at cuting

stuff right (i end up with lots of scrap

i have just hearing folks with with radio that have some 22 band (a
kenwood tribander has been popular round here) and no reapters localy
that use it I am planing on trying to put together a decent repater
that work at least out then goping after I ge it u and let be know at
that point it exists maybe some folks that could help with hombrewing a
duplexer will step up to improve the system

ty for the info
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

2871. Re: ARS License Numbers and idiots galore

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 03:11:10 UTC
From: Murray Neece <radioranch@qth.com>
Message-ID: <1272athq7lvn71f@corp.supernews.com>
Source record: 59063
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

I love it!! You guys will never change. Glad you got to see me..73 and
all that. K5MDM Murray

2872. Re: HF broadcasting antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 03:50:42 UTC
From: m II <none@telus.net>
Message-ID: <myacg.25334$FI1.7863@edtnps89>
Source record: 59064
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

Mark Zenier wrote:

> I think .hr is Croatia.

Yes, I believe you are right.

http://www.dns.hr/kontakti.html

2873. Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 04:48:59 UTC
From: AG4QC <Joel@cyberbest.com>
Message-ID: <1148272981_5573@sp6iad.superfeed.net>
Source record: 59065

I am having a metal roof put on the house and shop. The installer said it isn't required to be grounded. The city inspector said the same thing. Is that really true? I'm thinking of running a #8 from the roof to my common ground. Does that make sense?

Joe Loucka AG4QC

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

2874. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 04:56:29 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bkg2725ui18t5pct6cm4of8ejvhmoo21vf@4ax.com>
Source record: 59066

On Sun, 21 May 2006 23:48:59 -0500, "AG4QC" <Joel@cyberbest.com>
wrote:

>I am having a metal roof put on the house and shop. The installer said it
>isn't required to be grounded. The city inspector said the same thing. Is
>that really true? I'm thinking of running a #8 from the roof to my common
>ground. Does that make sense?

Hi Joe,

It is arguable that the entire roof would even be evenly conducting,
as installed. As conductivity is not a primary concern, the installer
is not motivated to insure that a #8 wire attached to one panel would
be felt by any other with any degree of confidence. Further, even if
all panels exhibited continuity today, this is not to say they would
tomorrow unless some care was taken to insure tight interconnections.

It is not unheard of here in this group to find Hams taking that care
and bonding all panels. The sense of it is to reduce the chance of
developing spurs due to RF currents meeting corroded joints (although,
no one has ever reported this as a problem, only anticipated it).

73's
Richard Clark, KB7QHC

2875. highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 05:08:27 UTC
From: spears <ester@talk21.com>
Message-ID: <44714748_1@news.iprimus.com.au>
Source record: 59067

I was wondering what is the highest gain hf antenna thats operational anywhere in the world? Secondly what is the gain.

Peter

2876. Re: seperation in lie of a duplexer at 222 mhz band

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 05:58:01 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <Jpccg.179357$tc.141003@fe2.news.blueyonder.co.uk>
Source record: 59068

I see that English isn`t your mother tongue then !!!.......or are you just kidding??.... ;-)

Lee......G6ZSG.....

"an_old_friend" <konstans@hotmail.com> wrote in message news:1148266485.066932.188610@i39g2000cwa.googlegroups.com...
>
> Dave Platt wrote:
> > In article <1148246239.775059.271390@u72g2000cwu.googlegroups.com>,
> > an old friend <kb9rqz@yahoo.com> wrote:
> >
> > >haing gotten many of the peices of a 222 band repater and wanting to
> > >put it on the air how much sepertion is required to avoid a paying the
> > >price of a duplexer at 22 band
> cut for brevity
> > My old copy of ARRL's "FM and Repeaters" book (copyright 1972)
> > suggests that approximately 58 dB of attenuation is required for a 600
> > kHz transmit/receive offset. They don't give a suggested figure for
> > the wider 1.6 MHz offset used on the 222 band.
> >
> > According to the graphs in this book, achieving 58 dB of attenuation,
> > on the 222 band, requires approximately 20 feet of vertical separation
> > between antennas, or approximately 100 feet of horizontal separation,
> > assuming unity-gain antennas (e.g. halfwave dipoles). You'd need
> > greater horizontal separation when using antennas with gain over a
> > halfwave. You might be able to get by with less vertical separation
> > if using gain antennas, depending on the actual pattern, feedline
> > radiation, local reflections, and so forth.
> ty for that given the proposed is a pair of disused grain silos 80 feet
> a part I was thinking horizontal sepertion (frankly had not considered
> vertical at all or i would have made that
> >
> > You might want to Google around for articles which show a method for
> > homebrewing a duplexer, using a length of surplus large-diameter
> > hardline coaxial cable as the resonator. These have apparently been
> > used for several years on the 6-meter band, and I recently saw a
> > Heliax notch/pass resonator which was made for a local 2-meter
> > repeater (it adds one additional section of receive
> > filtering/isolation to a repeater which uses a single antenna and a
> > commercially-built two-transmit-can, two-receive-can duplexer). The Q
> > of such Heliax-based resonators is lower than that of conventional
> > cans, and the insertion losses are higher.
> >
> > If you don't want to install a full-fledged duplexer and use a single

> > antenna, you might try something like a pair of 222 antennas with 20
> > foot or more of vertical separation, plus one band-reject (or
> > band-pass band-reject) Heliax resonator on each one.
> >
> > http://www.dallas.net/~jvpoll/dup6m/dup6m.html would be one place to
> > start looking.
> I had read something of that but have never been any good at cuting
> stuff right (i end up with lots of scrap
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> that work at least out then goping after I ge it u and let be know at
> that point it exists maybe some folks that could help with hombrewing a
> duplexer will step up to improve the system
>
> ty for the info
> >
> > --
> > Dave Platt <dplatt@radagast.org> AE6EO
> > Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> > I do _not_ wish to receive unsolicited commercial email, and I will
> > boycott any company which has the gall to send me such ads!
>

2877. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 06:36:10 UTC
From: nm5k@wt.net
Message-ID: <1148279770.237761.281080@i40g2000cwc.googlegroups.com>
Source record: 59069
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

>I asked around and found this practice is far from rare; I'm not sure
>"common" is the right word, though.

You really need to type if you run cw over about 60wpm
or so.. That was about my limit as far as sending fairly clean
with a paddle. I never liked to type, so 55-60 wpm pretty much was
the limit for me. Most all the high speed people used a keyboard
to send. But I'd say the majority listened with their ears instead
of using a reader. The brain is a better reader than most puter CW
programs. Most don't handle noise very well. Once I hit 55-60 wpm
on a paddle, I was stretching the limits. Past that, and it was pretty
dang ugly... Slopsville. The keyboards could kick back and type
about any CW speed with perfect sending. A decent typist can go
over 100 wpm+.
MK

2878. can i use this for satalite working A270-10S Cushcraft 2m/70cm 5 el Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 06:36:20 UTC
From: DAVID BROWNE <david.browne5@btinternet.com>
Message-ID: <EZccg.6989$BD2.5190@newsfe4-win.ntli.net>
Source record: 59070

A270-10S Cushcraft 2m/70cm 5 el Yagi
* Frequency 144-148MHz, 430-450MHz * Elements 5 ea. band * Power 350W *
Forward Gain10dB * Front-to-back 20, 18dBi * SWR (typ) 1.2:1 * Bandwidth
>4MHz, >10MHz * Boom length 1.9m * Longest element 102.4cm * Turning radius
1.8m * Mast Size 32-51mm * Wind load 0.07 * Weight 0.81kg
This antenna can be mounted in either vertical or horizontal polarisation.
It is perfect where space is tight and dual-band operation is required. The
harmonic relationship of 2m and 70cm allows clean radiation patterns with
minimal interaction.

if i can dose it want to be mounted vertical or horizontal polarisation

2879. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 09:11:21 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-6F6758.04105722052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59071

In article <l35272dj1m4f9p8o567mnolub2i2l9qrv0@4ax.com>,
Dan Richardson <> wrote:

> On Mon, 22 May 2006 01:23:08 GMT, "dale.j. " <nos.pamz@nospam.com>
> wrote:
>
> >OSX don't do executables and I'm not switching to windows. I'll just
> >struggle along with my musty old books.
>
> You can lead a hourse to water but you can't ....

What did you do before EZnec?

--
Email: dalej2@mac.com

2880. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 09:24:10 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-477820.04234622052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59072

In article <QN7cg.20524$Lm5.631@newssvr12.news.prodigy.com>,
Cecil Moore <mycall@hotmail.com> wrote:

> dale.j. wrote:
> > I just dug out my Practical Wire Antennas book by John Heys, G3BDQ,
> > RSGB 1989, P. 16 & 17 "centre-fed antennas using tuned feedlines", and
> > it collaborates the information in my old ARRL 1960 handbook which says
> > to calculate one half of the horizontal wire plus the feedline length
> > and that total number should not equal certain critical lengths one of
> > which is 160 feet on 3.6 Mhz, there are more. I hate to beat this to
> > death, but frankly I don't think any of us has a clear understanding of
> > this antenna.
>
> EZNEC can solve the problem. EZNEC was not available to the
> 1960 hams. Let's take a 130 foot dipole on 3.6 MHz with
> 95 feet of 450 ohm ladder-line with a velocity factor of
> 0.9. 65+95=160 The impedance seen by the tuner is 100-j400.
> Virtually every tuner in the world should be able to match
> that impedance. The antenna system is resonant around 4 MHz.
> The free demo version of EZNEC is available at:
> http://www.eznec.com
>
> How does the 1960 ARRL handbook handle velocity factor?

In Heys book circa 1989, he says "The velocity factor is only of
significance in certain antenna types, for example those requiring
quarter-wave 'stubs'. Such stubs are needed for the four -element
collinear antenna illustrated in Fig 21 and described later. Open wire
lines have a velocity factor of about 0.975 which means that a
quarter-wavelength stub at 7 Mhz will be 10in. (25cm) shorter than a
basic electrical quarter-wave-length."

In my old dusty musty ARRL 1960 and 1983 antenna handbooks I did not
find any reference to velocity factor in using this type of antenna.

Dalej.

--
Email: dalej2@mac.com

2881. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 12:32:27 UTC
From: w8ji@akorn.net
Message-ID: <1148301147.519366.35860@j73g2000cwa.googlegroups.com>
Source record: 59073

Gene Fuller wrote:
> Richard,
>
> Think again about what you wrote. The "Faraday screen" is full of
> openings between the wires of the picket fence. There is no evidence
> that anything magnetic or electric penetrates the walls of the
> conductors beyond a very shallow layer.
>
> Terman certainly did not deny the existence of skin effect that keeps
> the fields out of the interior of conductors.

Gene,

You might have to find a book that quotes the description of a screen
with parallel wires and large air gaps as compared to a wall or
cylinder several skin depths thick.
:-)

73 Tom

2882. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 13:25:05 UTC
From: Dan Richardson <>
Message-ID: <8re372ldsqnuijojl3rhglc333in021umj@4ax.com>
Source record: 59074

On Mon, 22 May 2006 09:11:21 GMT, "dale.j. " <nos.pamz@nospam.com>
wrote:

>In article <l35272dj1m4f9p8o567mnolub2i2l9qrv0@4ax.com>,
> Dan Richardson <> wrote:
>
>> On Mon, 22 May 2006 01:23:08 GMT, "dale.j. " <nos.pamz@nospam.com>
>> wrote:
>>
>> >OSX don't do executables and I'm not switching to windows. I'll just
>> >struggle along with my musty old books.
>>
>> You can lead a hourse to water but you can't ....
>
>
>What did you do before EZnec?

Made a lot of mistakes that I don't do now.

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2883. Re: 2.4 GHz Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 13:43:13 UTC
From: Jon Kåre Hellan <dev@null.com>
Message-ID: <1md5e6rx8u.fsf@persaunet.uninett.no>
Source record: 59075

Bob Bob <bob3bob3@cox.net> writes:

> I'd suggest it isnt worth attempting. The frequency change is more
> than 3:1 from the original TV use.
>
> There are a lot of simple 2.4GHz designs out there that are worth
> looking at.

Here are some cool ones build using Chinese cookware and USB Wi-Fi
adapters:
http://www.usbwifi.orcon.net.nz/
E.g. this one:
http://www.usbwifi.orcon.net.nz/usbscoop.jpg

73
LA4RT Jon

2884. Re: highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 13:53:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <wnjcg.90606$dW3.7948@newssvr21.news.prodigy.com>
Source record: 59076

spears wrote:
> I was wondering what is the highest gain hf antenna thats operational
> anywhere in the world? Secondly what is the gain.

Available from my web page below, this antenna models
out to have 24 dBi omnidirectional gain. :-)
--
73, Cecil http://www.qsl.net/w5dxp/SUPRGAIN.EZ

2885. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 14:10:19 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-B670D2.09095722052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59077

In article <8re372ldsqnuijojl3rhglc333in021umj@4ax.com>,
Dan Richardson <> wrote:

> On Mon, 22 May 2006 09:11:21 GMT, "dale.j. " <nos.pamz@nospam.com>
> wrote:
>
> >In article <l35272dj1m4f9p8o567mnolub2i2l9qrv0@4ax.com>,
> > Dan Richardson <> wrote:
> >
> >> On Mon, 22 May 2006 01:23:08 GMT, "dale.j. " <nos.pamz@nospam.com>
> >> wrote:
> >>
> >> >OSX don't do executables and I'm not switching to windows. I'll just
> >> >struggle along with my musty old books.
> >>
> >> You can lead a hourse to water but you can't ....
> >
> >
> >What did you do before EZnec?
>
> Made a lot of mistakes that I don't do now.
>
>
>
> In my many years I have come to a conclusion that one
> useless man is a shame, two is a law firm, and three
> or more is a congress. - John Adams
>
> email: k6mhe<at>arrl<dot>net
> http://www.k6mhe.com/

Well, I downloaded it on my shop machine and when I get around to it
I'll take a look as long as I don't have to spend a lot of time learning
it's operation. I'm going jogging now.

73
Dale

PS Nice web site Dan.

--
Email: dalej2@mac.com

2886. Re: highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 14:12:45 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <ZFjcg.35$lv.32@fe08.lga>
Source record: 59078

"spears" <ester@talk21.com> wrote in message
news:44714748_1@news.iprimus.com.au...
>I was wondering what is the highest gain hf antenna thats operational
>anywhere in the world? Secondly what is the gain.
>
> Peter

It is most likely the huge dish in Arecibo, Puerto Rico.
Close by would be the HARP system in Alaska.
Then the curtain arrays used by broadcast stations.
Then the Rhombics, then the rest.

--
Yuri Blanarovich, K3BU, VE3BMV

2887. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 14:16:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <fJjcg.90616$dW3.84579@newssvr21.news.prodigy.com>
Source record: 59079

dale.j. wrote:
> What did you do before EZnec?

I remember my "Elmer" in the 50's adding extra
lengths of open-wire line on certain bands for
his 80m dipole. He said he did it to make his
Harvey Wells Band-Master Deluxe happy. I don't
recall him owning an SWR meter but he did have
a 6C4 homebrew GDO and a sensing loop for locating
current maximum points on the open-wire line. The
transformed impedance is lowest at the current
maximum point.

When I was a Novice, every time I changed bands
from 40m to 80m, I would let my coax-fed dipole
down and jumper across two insulators. That was
the extent of my knowledge half a century ago.
--
73, Cecil http://www.qsl.net/w5dxp

2888. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 14:42:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <w5kcg.90623$dW3.88586@newssvr21.news.prodigy.com>
Source record: 59080

dale.j. wrote:
> Well, I downloaded it on my shop machine and when I get around to it
> I'll take a look as long as I don't have to spend a lot of time learning
> it's operation. I'm going jogging now.

I'm sending you the EZNEC file for a 127' dipole with
100' of 450 ohm ladder-line used on 3.6 MHz. It obeys
the 20 segment limit for the EZNEC demo.
--
73, Cecil http://www.qsl.net/w5dxp

2889. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 14:42:40 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <%5kcg.95$vQ5.31@fe10.lga>
Source record: 59081

"Michael Tope" <W4EF@comcast.net> wrote in message
news:tL2dnYM6ZZ55lezZnZ2dnUVZ_tKdnZ2d@comcast.com...
>
> "Yuri Blanarovich" <K3BU@optonline.net> wrote in message
> news:Xh7cg.1170$w05.773@fe10.lga...
>
>> There are other examples where shield "doesn't shield" - like link
>> coupling made of coax with end shield open and center conductor soldered
>> to the shield. As I mentioned I have magnetothermia machine that produces
>> about 200W from single shielded loop, according to Tom, it should be
>> frying the coax in the gap, with all that RF power trying to make the
>> corner :-)
>>
>
> Yuri, think about how the "link coupling" magnetic loop you describe
> above works. When the loop is energized where does the RF current
> leaving the center conductor go? It has to flow onto the outside of the
> shield. Where else could it go?
>
> RF current "makes the corner" around to the outside surface of the
> shield in coax all the time. If it didn't we wouldn't need choke
> balun's.

We need RF chokes and baluns to supress curents induced on the shield from
the unbalance at the antenna feedpoint.
Sooo, according to W8JI "teachings", RF current gets induced onto the
outside surface of tubing, then crolls around the edges and goes inside the
tubing?
Sooo, we should cork the elements, or the current will get confused inside
of dark tubing elements, Eh?
Any formulas to calculate the resonance of such "antenna"??

> 73, Mike
> W4EF.....

--
Yuri Blanarovich, K3BU, VE3BMV

2890. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 15:04:55 UTC
From: richardharrison@webtv.net
Message-ID: <23154-4471D317-1504@storefull-3254.bay.webtv.net>
Source record: 59082

Gene Fuller wrote:
"Terman certainly did not deny the existence of skin effect that keeps fields out of the interior of conductors.'

true. The point is, shielding from magnetic fields is different from electric fields. On page 35 of his 1955 edition, Terman writes:
"Magnetic flux in attempting to pass through a shield (copper or aluminum) induces voltage in the shield which gives rise to eddy currents. These eddy currents oppose the action of the flux, and in large measure prevent its penetration through the shield."

On page 38, Terman writes:
"Electrostatic shielding is obtained by enclosing free space to be shielded by a conducting surface."

On page 45, is problem 2-45 which contains an illustration of a grid of open-circuit wires which "will provide electrostatic shielding without magnetic shielding---." This works just like the picket fences used in broadcast stations to inhibit harmonic transmission.

Terman did not make this stuff up. It was already in wide use at the time.

Best regards, Richard Harrison, KB5WZI

2891. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 15:32:23 UTC
From: Dan Richardson <>
Message-ID: <d3m372tkemiu1h7oeff1a49b266scjc7ga@4ax.com>
Source record: 59083

On Mon, 22 May 2006 14:10:19 GMT, "dale.j. " <nos.pamz@nospam.com>
wrote:

[snip]
>
>Well, I downloaded it on my shop machine and when I get around to it
>I'll take a look as long as I don't have to spend a lot of time learning
>it's operation. I'm going jogging now.

Before you run the program, I suggest you printout Roy's "Getting
Started" portion of his manual, then one evening set down with a cup
of coffee and read it over. Roy has provided an excellent section on
getting started. It is not difficult and it will have you up and
running in a short order.

>
>73
>Dale
>
>PS Nice web site Dan.

Thank you and good luck.

73,
Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

2892. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 15:59:09 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <mrn3725f6ffoun0fnrn5ghkn69dr6u1f1l@4ax.com>
Source record: 59084

On Mon, 22 May 2006 10:42:40 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>
>"Michael Tope" <W4EF@comcast.net> wrote in message
>news:tL2dnYM6ZZ55lezZnZ2dnUVZ_tKdnZ2d@comcast.com...
>>
>> "Yuri Blanarovich" <K3BU@optonline.net> wrote in message
>> news:Xh7cg.1170$w05.773@fe10.lga...
>>
>>> There are other examples where shield "doesn't shield" - like link
>>> coupling made of coax with end shield open and center conductor soldered
>>> to the shield. As I mentioned I have magnetothermia machine that produces
>>> about 200W from single shielded loop, according to Tom, it should be
>>> frying the coax in the gap, with all that RF power trying to make the
>>> corner :-)
>>>
>>
>> Yuri, think about how the "link coupling" magnetic loop you describe
>> above works. When the loop is energized where does the RF current
>> leaving the center conductor go? It has to flow onto the outside of the
>> shield. Where else could it go?
>>
>> RF current "makes the corner" around to the outside surface of the
>> shield in coax all the time. If it didn't we wouldn't need choke
>> balun's.
>
>We need RF chokes and baluns to supress curents induced on the shield from
>the unbalance at the antenna feedpoint.
>Sooo, according to W8JI "teachings", RF current gets induced onto the
>outside surface of tubing, then crolls around the edges and goes inside the
>tubing?
>Sooo, we should cork the elements, or the current will get confused inside
>of dark tubing elements, Eh?
>Any formulas to calculate the resonance of such "antenna"??
>
>> 73, Mike
>> W4EF.....

Yuri,

It is true that current will not flow on the inside of a tube from
current on the outside. The "waveguide beyond cutoff" effect keeps it
from doing so. The currents quickly cancel a short distance inside the
tube.

However, if you put a conductor inside that tube (wire) now it acts like a coax cable and the energy on the center conductor couples to the inside wall of the tube. At the end of the tube the current is free to wrap around to the outside.

73
Gary K4FMX

2893. Hamvention: Amateur Radio Manufacturers and Unfair Pricing...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 16:08:47 UTC
From: laborkei <laborkeiNOSPAM@hotmail.com>
Message-ID: <1mlcg.51373$Kn4.38159@bignews2.bellsouth.net>
Source record: 59085
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.misc,rec.radio.amateur.swap

Amateur Radio Manufacturers and unfair pricing!

Here I sit the day after Dayton, calling around to all the dealers looking for a HF Transceiver. There were some fantastic prices offered on equipment (As much as $500 off list), and the dealers are back to charging full price today.

I am told by the dealers I called, that the Manufacturers were making deals with them so they could sell there inventories much cheaper, and the orders had to be taken at Dayton. Today, the day after when most of these orders had not even shipped yet, they are back up to full retail price.

To be fair, Manufacturers should allow these prices for a time period after Dayton to give other Amateurs who could not drive to Dayton an opportunity to get the same deals.

I think we should all write to them and let them know how we feel. This is unfair !

2894. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 16:23:05 UTC
From: Al - VA3KAI <niittyma@sympatico.ca>
Message-ID: <Ezlcg.347$ho5.46713@news20.bellglobal.com>
Source record: 59088

Cecil,

I read the postings regularly for new ideas on antennas and feedlines.

This recent posting with your ladder-line physical shortening idea is just the solution I was searching for to reduce my ~65' of 300 ohm ladder-line to stand-off my 40' tower and keep it out of my house. Now I can add a coax RF choke loop at the base of my ladder-line feeder (still outside) and feed the rest of the coax into the basement to my shack. I'll likely use knotted black dacron line for the stringer/messenger support.

The antenna is an inverted 204' G5RV - any suggestions on how many RG-8X turns and what diameter choke loop to use for mostly 160, 80 and 40 metre band operations with this antenna - I was thinking about 8-9 turns on a 9" loop? I plan to have it about 37' up with the ends dropping down to 20'. I know it will be mostly a cloud-burner at this height, but it is the best I can do given my tower height and tree availability and it will get me on 160M.

Thanks....... Al, va3kai

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:z8_bg.13144$fb2.7760@newssvr27.news.prodigy.net...
> dale.j. wrote:
>> I'll give the 100 ft a go and let you know.
>>
>> When you say wind the ladder line around a tag rope, I assume you mean to
>> use ties around one wire of the ladder and make the loop maybe a foot in
>> diameter or maybe 6 inches? Sort of a helix affair. Would that cause a
>> problem with the ladder being so close to the turns?
>
> You are forming 100 ft. of ladder-line into a 50 ft. long helix.
> The spacing on the turns will not be a problem as it will be
> a very loosely wound helix. Tie a knot in the messenger string
> every 10 inches. Anchor one point of the ladder-line to a knot
> in the messenger string using black tie-wraps. Take 20 inches of
> ladder-line and anchor it at the next knot down from the first knot.
> That will give you one turn of the helix. Repeat until you have
> a 100 foot feedline. If you didn't want to use tie-wraps, you
> could tie the 10 inch spaced knots through the ladder-line every
> 20 inches of ladder-line.
> --
> 73, Cecil http://www.qsl.net/w5dxp

2895. Re: Hamvention: Amateur Radio Manufacturers and Unfair Pricing...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 16:26:44 UTC
From: Billy Smith <colonelsmileywrm85n6e8@yahoo.com>
Message-ID: <8Dlcg.5361$x4.2824@newsread3.news.pas.earthlink.net>
Source record: 59086
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.misc,rec.radio.amateur.swap

laborkei wrote:
> Amateur Radio Manufacturers and unfair pricing!
>
> Here I sit the day after Dayton, calling around to all the dealers looking
> for a HF Transceiver. There were some fantastic prices offered on equipment
> (As much as $500 off list), and the dealers are back to charging full price
> today.
>
> I am told by the dealers I called, that the Manufacturers were making deals
> with them so they could sell there inventories much cheaper, and the orders
> had to be taken at Dayton. Today, the day after when most of these orders
> had not even shipped yet, they are back up to full retail price.
>
> To be fair, Manufacturers should allow these prices for a time period after
> Dayton to give other Amateurs who could not drive to Dayton an opportunity
> to get the same deals.
>
> I think we should all write to them and let them know how we feel. This is
> unfair !
>
>

Cry us a river. They made the offers at Dayton and that was what they as
private businesses chose to do. You could have either went to Dayton or
found whatever way to get a radio from there. Get over it.

2896. Re: Hamvention: Amateur Radio Manufacturers and Unfair Pricing...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 16:30:02 UTC
From: Paul Rubin <http>
Message-ID: <7xirnyyqd1.fsf@ruckus.brouhaha.com>
Source record: 59087
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.misc,rec.radio.amateur.swap

"laborkei" <laborkeiNOSPAM@hotmail.com> writes:
> I think we should all write to them and let them know how we feel. This is
> unfair !

Why not just vote with your wallet?

2897. Free QRP xmtr

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 16:44:24 UTC
From: hamradio.dxer@yahoo.com
Message-ID: <1148316264.771023.87880@j55g2000cwa.googlegroups.com>
Source record: 59089

No, I'm not affiliated with them. But this company has a promotion
going this summer that you get a free qrp transmitter (it's not a kit)
if you buy one of their portable dipole antennas. Here's the promotion
page:

http://hamradiofun.com/summer-special.htm

73's from Fred

2898. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 16:49:23 UTC
From: Michael Tope <W4EF@comcast.net>
Message-ID: <_Zudnd8ToMgMduzZnZ2dnUVZ_v6dnZ2d@comcast.com>
Source record: 59090

"Yuri Blanarovich" <K3BU@optonline.net> wrote in message
news:%5kcg.95$vQ5.31@fe10.lga...

>> RF current "makes the corner" around to the outside surface of the
>> shield in coax all the time. If it didn't we wouldn't need choke
>> balun's.
>
> We need RF chokes and baluns to supress curents induced on the shield from
> the unbalance at the antenna feedpoint.

Actually what oftentimes happens with a coax feed is that the RF
current leaving the inside of the feedline shield can flow in two
directions. It can flow down the antenna element half connected to the
shield (desired path), or it can flow down the outside of the shield
(undesired path). The electrons are dumb, all they are looking for is
the path of least resistance. They can't tell that the metal surface
on the outside of the coax isn't supposed to be part of the antenna.
The only way to keep current from flowing down the shield is make
the antenna element-half connected to the shield look like a lower
impedance than the outside of the shield. If you place ferrite beads
around the outside of the shield, this will raise the impedance of the
shield path, thereby diverting the bulk of the RF current into the
element-half and off of the shield's outside surface.

> Sooo, according to W8JI "teachings", RF current gets induced onto the
> outside surface of tubing, then crolls around the edges and goes inside
> the tubing?

As per K4FMX's comments, this can only happen if there is a
center conductor inside the tubing, or if the tubing diameter is greater
than ~1/2 wavelength in diameter, otherwise the inside of the tubing
looks like a circular waveguide beyond cutoff. This is why coax
of a given diameter becomes useless above a certain upper frequency
limit. Once the I.D. of the coax becomes a significant fraction of a
wavelength in diameter, the coax will start to support propagation of
waveguide modes (e.g. non-TEM modes). At HF frequencies, even
large diameter tubing is well beyond waveguide cutoff, so there is no
concern about "corking" open tubing with no center conductor (it
corks itself).

73, Mike W4EF.....

> Sooo, we should cork the elements, or the current will get confused inside
> of dark tubing elements, Eh?
> Any formulas to calculate the resonance of such "antenna"??
>

2899. Re: can i use this for satalite working A270-10S Cushcraft 2m/70cm 5 el Yagi

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 16:51:13 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <e4sq62$371$1@news.netins.net>
Source record: 59091

With a couple of caveats, yes, you can use it for satellite work.

1. Rear mount it, don't shoot through a metal mast.

2. Polarization: for LEOs won't matter (Low Earth Orbit). Since there aren't any HEOs right now, do whatever might give you dual use, e.g., if you want to work the occasional SSB contact then mount them for horizontal polarization. If, on the other hand, you want some increased FM repeater coverage, mount them for vertical polarization. As far as the LEOs go, polarization won't be a real factor.

3. Chances are neither antenna comes even close to claimed gain. It won't matter for the LEO, they are good enough.

Some of the best fun you can currently have on satellites would be dramatically improved with a 2m preamp. Do yourself a favor and mount it out at the antenna, not after 2 or 3 dB of feedline loss in front of it. The mode B VUSAT works really well. Lots of fun to be had on it. ISS also works well (International Space Station). Old AO-7 still works (after being on an extended vacation for a decade or so) nicely on mode B, WHEN IT IS IN SUNLIGHT (batteries are shot)).

Any bird that you work that has a 70cm downlink (your received side) will require a preamp unless you have no feedline loss at all.

In summary, the antenna will work. Make sure to keep your feedline losses as low as possible. Nothing less than LMR-400 will do if you have any significant length of run to the antennas from the shack. (25' or more). Preamps at the antenna will make a night and day difference. They are the SINGLE thing you can do that will give the biggest bang for the buck. I recommend the SSB Electronics preamps as they are rugged, well built and well protected.

Have fun.

My sat setup:

2m/70cm nested quads (5el-2m/8 el-70cm), vertical polarization, mast mounted gasfet preamps
70cm 14.2 dBc circlularly polarized (RHC) crossed yagi M2
2m Egg Beater
3' parabolic dish for 2.4 gig, antenna mounted LNA down-converter.
All antennas fed with 80' of LMR-400.
AZ/EL rotors: G-800 AZ, Yaesu Elevation Rotor.

73,

...hasan, N0AN

"DAVID BROWNE" <david.browne5@btinternet.com> wrote in message
news:EZccg.6989$BD2.5190@newsfe4-win.ntli.net...
> A270-10S Cushcraft 2m/70cm 5 el Yagi
> * Frequency 144-148MHz, 430-450MHz * Elements 5 ea. band * Power 350W *
> Forward Gain10dB * Front-to-back 20, 18dBi * SWR (typ) 1.2:1 * Bandwidth
> >4MHz, >10MHz * Boom length 1.9m * Longest element 102.4cm * Turning
> >radius
> 1.8m * Mast Size 32-51mm * Wind load 0.07 * Weight 0.81kg
> This antenna can be mounted in either vertical or horizontal polarisation.
> It is perfect where space is tight and dual-band operation is required.
> The harmonic relationship of 2m and 70cm allows clean radiation patterns
> with minimal interaction.
>
>
> if i can dose it want to be mounted vertical or horizontal polarisation
>
>

2900. Re: highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 17:12:38 UTC
From: You <You@shadow.orgs>
Message-ID: <You-F7F432.09131822052006@netnews.worldnet.att.net>
Source record: 59092

In article <ZFjcg.35$lv.32@fe08.lga>,
"Yuri Blanarovich" <K3BU@optonline.net> wrote:

> It is most likely the huge dish in Arecibo, Puerto Rico.

Arecibo ISN"T an "HF" antenna.........

2901. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 17:21:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <aqmcg.90658$dW3.19794@newssvr21.news.prodigy.com>
Source record: 59093

Al - VA3KAI wrote:
> The antenna is an inverted 204' G5RV - any suggestions on how many RG-8X
> turns and what diameter choke loop to use for mostly 160, 80 and 40 metre
> band operations with this antenna - I was thinking about 8-9 turns on a 9"
> loop?

IMO, turns of coax, like 1/2WL of feedline, doesn't make much
sense on 160m because of the number of turns required. Turns
of coax on a large toroid makes more sense at the low frequencies.
--
73, Cecil http://www.qsl.net/w5dxp

2902. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 17:23:52 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <lsmcg.90659$dW3.45504@newssvr21.news.prodigy.com>
Source record: 59094

Michael Tope wrote:
> The electrons are dumb, all they are looking for is
> the path of least resistance.

Hmmmm, electrons that know ohm's law sound pretty
smart to me. :-)
--
73, Cecil http://www.qsl.net/w5dxp

2903. Re: highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 17:40:21 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <9Imcg.31806$4L1.3730@newssvr11.news.prodigy.com>
Source record: 59095

"You" <You@shadow.orgs> wrote in message
news:You-F7F432.09131822052006@netnews.worldnet.att.net...
> In article <ZFjcg.35$lv.32@fe08.lga>,
> "Yuri Blanarovich" <K3BU@optonline.net> wrote:
>
>> It is most likely the huge dish in Arecibo, Puerto Rico.
>
> Arecibo ISN"T an "HF" antenna.........

Just for the heck of it , I did a little internet check on Arecibo and found
the following info;
""Full operation of the facility ideally requires three frequency bands,
near 3.175, 5.1, and 8.175 mhz."

Harold
KD5SAK

2904. Re: Free QRP xmtr

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 18:18:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ekv372d4fue6dcatipbq1hk9kiruhagfdd@4ax.com>
Source record: 59096

On 22 May 2006 09:44:24 -0700, hamradio.dxer@yahoo.com wrote:

>No, I'm not affiliated with them.

I'll bet if you have a tower there in Concord, that if it tipped over
it would hit the folks in Horton. You are not affiliated with them?
You couldn't be any closer if you were siamese twins.

2905. Re: highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 18:44:01 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <hEncg.129$vQ5.126@fe10.lga>
Source record: 59097

"You" <You@shadow.orgs> wrote in message
news:You-F7F432.09131822052006@netnews.worldnet.att.net...
> In article <ZFjcg.35$lv.32@fe08.lga>,
> "Yuri Blanarovich" <K3BU@optonline.net> wrote:
>
>> It is most likely the huge dish in Arecibo, Puerto Rico.
>
> Arecibo ISN"T an "HF" antenna.........

IT IS!
It has been used by hams as low as 3.5 MHz band.

Yuri, K3BU

2906. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 19:09:52 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-04E419.14092922052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59098

In article <w5kcg.90623$dW3.88586@newssvr21.news.prodigy.com>,
Cecil Moore <mycall@hotmail.com> wrote:

> dale.j. wrote:
> > Well, I downloaded it on my shop machine and when I get around to it
> > I'll take a look as long as I don't have to spend a lot of time learning
> > it's operation. I'm going jogging now.
>
> I'm sending you the EZNEC file for a 127' dipole with
> 100' of 450 ohm ladder-line used on 3.6 MHz. It obeys
> the 20 segment limit for the EZNEC demo.

Thanks Cecil, I downloaded it on my G5 and saved it to my AMD XP machine
in the workshop via my network. I did run it, but I'm going to have to
spend some time with it. I'll take Dannys advice and download Roys
getting started.

73
Dale

--
Email: dalej2@mac.com

2907. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 19:12:42 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-30D7E2.14121922052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59099

In article <fJjcg.90616$dW3.84579@newssvr21.news.prodigy.com>,
Cecil Moore <mycall@hotmail.com> wrote:

> dale.j. wrote:
> > What did you do before EZnec?
>
> I remember my "Elmer" in the 50's adding extra
> lengths of open-wire line on certain bands for
> his 80m dipole. He said he did it to make his
> Harvey Wells Band-Master Deluxe happy. I don't
> recall him owning an SWR meter but he did have
> a 6C4 homebrew GDO and a sensing loop for locating
> current maximum points on the open-wire line. The
> transformed impedance is lowest at the current
> maximum point.
>
> When I was a Novice, every time I changed bands
> from 40m to 80m, I would let my coax-fed dipole
> down and jumper across two insulators. That was
> the extent of my knowledge half a century ago.

Seems like the Harvey Zmatch was more narrow tuning than the Johnson.

--
Email: dalej2@mac.com

2908. Re: highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 19:46:08 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148327168.199001.5220@38g2000cwa.googlegroups.com>
Source record: 59100

Seems like Arecibo might have around 36dB gain at 28MHz where it is a
28 wavelength dish, at least according to scaling numbers I found on a
random webpage.

Not bad. Seems that a 3.5 wavelength dish (3.5MHz Arecibo) still has a
bit of gain too. 15dB?

I wish I had 15dBd gain on 3.5MHz... don't exactly want it straight up,
though.

73,
Dan
N3OX

2909. Re: highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 19:56:44 UTC
From: dplatt@radagast.org
Message-ID: <12745rs4pepag62@corp.supernews.com>
Source record: 59101

In article <1148327168.199001.5220@38g2000cwa.googlegroups.com>,
n3ox.dan@gmail.com <n3ox.dan@gmail.com> wrote:

>Seems like Arecibo might have around 36dB gain at 28MHz where it is a
>28 wavelength dish, at least according to scaling numbers I found on a
>random webpage.
>
>Not bad. Seems that a 3.5 wavelength dish (3.5MHz Arecibo) still has a
>bit of gain too. 15dB?
>
>I wish I had 15dBd gain on 3.5MHz... don't exactly want it straight up,
>though.

That's OK. Just hoist up one mountain, lower the other, and rotate
the whole dish/valley onto its side. Paul Bunyan would have thought
nothing of it.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2910. Re: Hamvention: Amateur Radio Manufacturers and Unfair Pricing...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 21:18:25 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <mia47256agbqijcepd8nm5rmogvi1fd7ii@4ax.com>
Source record: 59102
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.misc,rec.radio.amateur.swap

On Mon, 22 May 2006 16:26:44 GMT, Billy Smith
<colonelsmileywrm85n6e8@yahoo.com> wrote:
> You could have either went to Dayton

Or even better, you could have gone to Dayton.

2911. Re: highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 21:22:28 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <tqa472l0he9em6qbnqga7j4frv4f4ot3il@4ax.com>
Source record: 59103

On 22 May 2006 12:46:08 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

>Seems like Arecibo might have around 36dB gain at 28MHz where it is a
>28 wavelength dish, at least according to scaling numbers I found on a
>random webpage.
>
>Not bad. Seems that a 3.5 wavelength dish (3.5MHz Arecibo) still has a
>bit of gain too. 15dB?
>
>I wish I had 15dBd gain on 3.5MHz... don't exactly want it straight up,
>though.

Not to mention the blockage from the feed horn. [g]

2912. Why Markie Spams

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 21:34:14 UTC
From: W6BLO@yahoo.com
Message-ID: <1148333653.989066.182600@38g2000cwa.googlegroups.com>
Source record: 59104
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

markie the retard dreams of sucking hot hammie cock! sick little markie
wants his demented father's cock in his mouth,too.

2913. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 21:36:39 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148333799.022539.52100@j33g2000cwa.googlegroups.com>
Source record: 59105
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

W...@yahoo.com wrote:
> markie the retard dreams of sucking hot hammie cock!
I get all I want no need for me to dream

get help

2914. Re: Auto-Tuners with balanced antenna?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 23:09:09 UTC
From: Pete Connors <ici@la.bas>
Message-ID: <aog472l42tt1sbm6s3k7t7ajjk1c76v283@4ax.com>
Source record: 59106

On Sun, 21 May 2006 20:59:04 GMT, Alan WA4SCA <APBIDDLE@UNITED.NET>
wrote:

>Ed,
>
>Take a look at http://www.hamware.de/index.html Just got back from
>Dayton, and the ones on display looked solidly built, though that is
>no indication of how well they actually work. Eham has some positive
>reviews of an earlier model. No personal experience.

I am just about to install a hamware AT-502 in my back garden to tune
a 67ft doublet fed with ladder line. On 1.8MHz (and sometimes on 3.5 &
7MHz) I'll be using the ASU-502 accessory switch, strapping the
feeders together and tuning it as a T against a crappy ground .
I'll let youse all know how it works out.

Pete, G4PLZ
--
Pete

2915. sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 23:19:25 UTC
From: ml <m@di.net>
Message-ID: <m-CF4A28.19192122052006@news.verizon.net>
Source record: 59107

hi

I was wondering a few things i read about in my sgc tuner manual about dipoles

a) they say or sorta recomend that if your making a simple horiz ctr fed dipole, it's 'best' to have one leg longer

why is that 'a good idea' what happens that makes this sorta advisable

b) they recomend the longer leg to be the rf 'ground'' side , really confused as to why, my gut would tell me to make the hot side the longest leg so i am confused

can anyone help me understand the above, i kinda understand how the wave looks on a regular horizontal ctr fed dipole is

any help appreciated

2916. Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 23:28:15 UTC
From: Jay <Jpegged@b4qrt.net>
Message-ID: <jOrcg.651$Sf2.175@newsread1.news.pas.earthlink.net>
Source record: 59108
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

I put the ball to a metal grinder and I could easily see an outer F layer and then the E layer. I couldn't find a D layer, but it was dark outside and there's not supposed to be a D layer at night. Neat how antenna's can be manufactured to do that.

Just passed my tech and General on Sunday so I'll be on the bands as soon as I find out my callsign and get an ionsphere for my antenna. I destroyed the old one on the grinder and I hear you need a good ionsphere to shoot good skip and hear far away stations. Reception has been really shitty lately without the ionsphere. I looked through the last 4 issues of QST and I couldn't find anyone selling ionsphere's. Where can I get one, or do I have to buy a whole new antenna?

Thanks, Jay

2917. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 23:32:13 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148340733.169536.23730@38g2000cwa.googlegroups.com>
Source record: 59109
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

Jay wrote:
> I put the ball to a metal grinder and I could easily see an outer F layer
> and then the E layer. I couldn't find a D layer, but it was dark outside
troll

2918. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 23:41:02 UTC
From: Brenda Ann <brendad@shinbiro.com>
Message-ID: <e4ti2i$il6$1@news2.kornet.net>
Source record: 59110
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1148340733.169536.23730@38g2000cwa.googlegroups.com...
>
> Jay wrote:
>> I put the ball to a metal grinder and I could easily see an outer F layer
>> and then the E layer. I couldn't find a D layer, but it was dark outside
> troll
>

I'm not so sure he's a troll.. it's a funny routine, and probably is meant
as such. We really need something to lighten up this NG a little. :)

2919. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 23:47:41 UTC
From: gosmithwhisper@yahoo.com
Message-ID: <1148341661.666387.9240@j73g2000cwa.googlegroups.com>
Source record: 59111
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

Why, like every other ham here, don't you just use a cell phone and
save yourself a few thousand bucks !

2920. Re: highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 23:51:45 UTC
From: ml <m@di.net>
Message-ID: <m-B7E5CA.19514522052006@news.verizon.net>
Source record: 59112
Body handling: HTML body converted to readable text

```
>
> Just for the heck of it , I did a little internet check on Arecibo and found
> the following info;
> ""Full operation of the facility ideally requires three frequency bands,
> near 3.175, 5.1, and 8.175 mhz."
>
> Harold
> KD5SAK

<
```

2921. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 23:56:33 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148342193.488304.185750@g10g2000cwb.googlegroups.com>
Source record: 59113
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

```
Brenda Ann wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1148340733.169536.23730@38g2000cwa.googlegroups.com...
> >
> > Jay wrote:
> >> I put the ball to a metal grinder and I could easily see an outer F layer
> >> and then the E layer. I couldn't find a D layer, but it was dark outside
> > > troll
> > >
> >
> > I'm not so sure he's a troll.. it's a funny routine, and probably is meant
> > as such. We really need something to lighten up this NG a little. :)
I amsure he is a troll
```

2922. Variable coax length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-22 23:57:49 UTC
From: Buck <not@this.time>
Message-ID: <h8rv62ttfbq1pdv5ta4290bq32qsa5f96v@4ax.com>
Source record: 59114

>Did you take a look at the information on my web page at:
>
>http://www.qsl.net/w5dxp/notuner.htm

Can you make that work using coax instead of open wire?

--
73 for now
Buck
N4PGW

2923. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 00:11:29 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <orscg.177472$bm6.119592@fed1read04>
Source record: 59115
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

Jay -- wrong approach

Propagation is conrolled by the Palos Verdes Sundancers see URL:
http://www.ve1dx.net/Stories/story109.html

--
CL -- I doubt, therefore I might be !

"Jay" <Jpegged@b4qrt.net> wrote in message
news:jOrcg.651$Sf2.175@newsread1.news.pas.earthlink.net...
>I put the ball to a metal grinder and I could easily see an outer F layer
> and then the E layer. I couldn't find a D layer, but it was dark outside
> and there's not supposed to be a D layer at night. Neat how antenna's can
> be manufactured to do that.
>
> Just passed my tech and General on Sunday so I'll be on the bands as
> soon as I find out my callsign and get an ionsphere for my antenna. I
> destroyed the old one on the grinder and I hear you need a good ionsphere
> to shoot good skip and hear far away stations. Reception has been really
> shitty lately without the ionsphere. I looked through the last 4 issues of
> QST and I couldn't find anyone selling ionsphere's. Where can I get one,
> or do I have to buy a whole new antenna?
>
> Thanks, Jay
>

2924. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 00:28:21 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97CBB1E883718spectrumhogstarbandn@198.186.192.196>
Source record: 59116
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

Jay <Jpegged@b4qrt.net> wrote in
news:jOrcg.651$Sf2.175@newsread1.news.pas.earthlink.net:

> I put the ball to a metal grinder and I could easily see an outer F
> layer and then the E layer. I couldn't find a D layer, but it was
> dark outside and there's not supposed to be a D layer at night. Neat
> how antenna's can be manufactured to do that.
>
> Just passed my tech and General on Sunday so I'll be on the bands as
> soon as I find out my callsign and get an ionsphere for my antenna. I
> destroyed the old one on the grinder and I hear you need a good
> ionsphere to shoot good skip and hear far away stations. Reception has
> been really shitty lately without the ionsphere. I looked through the
> last 4 issues of QST and I couldn't find anyone selling ionsphere's.
> Where can I get one, or do I have to buy a whole new antenna?
>

You don't need a new one. The old one probably got stuck in your coax
by back-feed when you were grinding. Just get an RF brush and give your
coax a few swipes and the ionosphere should pop right back out!

Ed K7AAT

2925. Re: Variable coax length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 00:56:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <r1n472tp7bmvrojvsk2g3msb1e9tpf5du6@4ax.com>
Source record: 59117

On Mon, 22 May 2006 19:57:49 -0400, Buck <not@this.time> wrote:

>
>>Did you take a look at the information on my web page at:
>>
>>http://www.qsl.net/w5dxp/notuner.htm
>
>
>Can you make that work using coax instead of open wire?

Hi Buck,

I built one some 10 years ago for what I call my Binary Variable
Transmission Line. I had obtained some precision transmission line,
that is solid copper shield (no vinyl jacket), but RG-58 size and I
coiled it in 6 inch loops of 1', 2', 4', 8' and 16'. I then used 5
DPDT switches to add the sections in, or to jump them. I mounted it
in a box and it works fine.

73's
Richard Clark, KB7QHC

2926. Wanted tube socketts & chimneys

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 01:51:51 UTC
From: Big Al <tjtrucker@hotmail.com>
Message-ID: <XUtcg.182333$7a.75961@pd7tw1no>
Source record: 59118

Wanted
Looking for 2 socketts and chimneys for Eimac 4CX250 tubes.

Email direct to ve7agw(at)shaw.ca (you know what to do with the (at).

Thanks and 73...de ve7agw,
Al

2927. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 02:32:40 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44727448.8050103@fuse.net>
Source record: 59119
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

an_old_friend wrote:
> Jay wrote:
>
>>I put the ball to a metal grinder and I could easily see an outer F layer
>>and then the E layer. I couldn't find a D layer, but it was dark outside
>
> troll
>
Relax, it wasn't THAT bad of a joke. Not that GOOD, either.

2928. Re: Hamvention: Amateur Radio Manufacturers and Unfair Pricing...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 03:16:35 UTC
From: C64ER <me@home.com>
Message-ID: <n8vcg.30283$YI5.17975@tornado.ohiordc.rr.com>
Source record: 59120
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.misc,rec.radio.amateur.swap

Here's a clue:
Life is not fair. Never was, never will be.
Deal with it.

73

2929. Re: Variable coax length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 03:29:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7kvcg.13806$fb2.2474@newssvr27.news.prodigy.net>
Source record: 59121

Buck wrote:
>>Did you take a look at the information on my web page at:
>>http://www.qsl.net/w5dxp/notuner.htm
>
> Can you make that work using coax instead of open wire?

You cannot use 50 ohm coax to transform the impedance to
50 ohms since 50 ohms is the center of the SWR circle.

You could use side-by-side runs of 75 ohm coax to achieve
a balanced Z0 of 150 ohms.

But the reason that 450 ohm ladder-line works so well is
that 450/50 = 9:1 and 4050/450 = 9:1. 450 ohm ladder-line
can handle most any and all of the antenna impedances with
an SWR less than 18:1 on the ladder-line.
--
73, Cecil http://www.qsl.net/w5dxp

2930. Re: Variable coax length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 03:33:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Hovcg.13808$fb2.5727@newssvr27.news.prodigy.net>
Source record: 59122

Cecil Moore wrote:
> But the reason that 450 ohm ladder-line works so well is
> that 450/50 = 9:1 and 4050/450 = 9:1. 450 ohm ladder-line
> can handle most any and all of the antenna impedances with
> an SWR less than 18:1 on the ladder-line.

Forgot to say the above applies to dipoles that are 1/2
wavelength on the lowest frequency of operation. It
doesn't apply to dipoles that are much shorter than 1/2
wavelength.
--
73, Cecil http://www.qsl.net/w5dxp

2931. Re: Variable coax length?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 05:00:44 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <4a5572pgc995vqjm07j2qe5drdjv9bl6fq@4ax.com>
Source record: 59123

On Tue, 23 May 2006 03:29:07 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Buck wrote:
>>>Did you take a look at the information on my web page at:
>>>http://www.qsl.net/w5dxp/notuner.htm
>>
>> Can you make that work using coax instead of open wire?
>
>You cannot use 50 ohm coax to transform the impedance to
>50 ohms since 50 ohms is the center of the SWR circle.
>
>You could use side-by-side runs of 75 ohm coax to achieve
>a balanced Z0 of 150 ohms.
>
>But the reason that 450 ohm ladder-line works so well is
>that 450/50 = 9:1 and 4050/450 = 9:1. 450 ohm ladder-line
>can handle most any and all of the antenna impedances with
>an SWR less than 18:1 on the ladder-line.

Since Cecil's scheme operates the transmission line at very high VSWR
on some frequencies (no matter what the line Zo), lossy lines such as
typical coax may (probably will) have unacceptable losses on some
frequencies.

Owen
--

2932. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 05:33:56 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12757m7m6v342f0@corp.supernews.com>
Source record: 59124

Richard Harrison wrote:
> Richard Clark, KB7QHC wrote:
> "Who. in your estimation, does qualify to discuss it?"
>
> If it`s about antennas, I nominate Kraus. If it`s about mathematics,
> many marhematicians qualify.
>
> In algebra, y = mx + b, (the point slope formula), is called linear
> because it is the graph of a straight line.
> . . .

But of course you realize that the function y = mx + b doesn't meet the requirements of a linear function when applied to network theory.

Roy Lewallen, W7EL

2933. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 05:55:42 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12758v1nbaq09f5@corp.supernews.com>
Source record: 59125

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "Assuming the source signal is a pure sine wave, if the standing wave
> current "isn`t in general sinusoidally shaped (as Roy said)", then the
> antenna would have to be introducing harmonic radiation that doesn`t
> exist in the source signal."
> . . .

Either Cecil is misquoting me, or Richard is misquoting Cecil.

Cecil calls the total current the "standing wave current". I never said that the standing wave current isn't sinusoidally shaped. I said that the *envelope* of the standing wave -- that is, a graph of the magnitude of the current on a transmission line as a function of position along the line -- is not sinusoidally shaped except in the special case of a complete reflection. This isn't a personal theory, but a very well established fact which can easily be derived from fundamental equations. (Or it can even be found clearly stated in texts for those unable to understand the derivation.) On antennas, the current distribution (magnitude of current vs position) is generally not sinusoidal either, although it's approximately so on thin wire antennas.

Assuming that the transmission line is driven with a pure sine wave, the forward, reverse, and total currents as a function of *time* will be sinusoidal and consequently no harmonics will be generated. (I'm of course neglecting nonlinear effects which might occur in a real transmission line or antenna such as magnetic conductors or nonlinear dielectrics. But in practical terms these will be virtually unmeasurable with ordinary coax or twinlead and amateur power levels.)

It's hard to determine whether Cecil's sustained confusion between a time waveform and a graph of amplitude vs distance is intentional or if the concepts are really mixed up for him. It has, in either case, provided a convenient diversion from his basic strange theories at the time it was getting particularly hard for him to continue supporting them.

Roy Lewallen, W7EL

2934. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 06:44:25 UTC
From: BKR <REMOVESPAMrchvid7@lycos.comFilter>
Message-ID: <4472af4e@nntp.zianet.com>
Source record: 58976

ml wrote:
> hi
>
> I was wondering a few things i read about in my sgc tuner manual about
> dipoles
>
>
> a) they say or sorta recomend that if your making a simple horiz ctr fed
> dipole, it's 'best' to have one leg longer
>
> why is that 'a good idea' what happens that makes this sorta advisable
>
>
> b) they recomend the longer leg to be the rf 'ground'' side , really
> confused as to why, my gut would tell me to make the hot side the
> longest leg so i am confused
>
>
>
> can anyone help me understand the above, i kinda understand how the wave
> looks on a regular horizontal ctr fed dipole is
>
>
> any help appreciated

It is the same reason that when you build a standard 2 meter ground plane antenna, that the ground plane is constructed with wires or rods about 20.5 inches each. That is close to a quarter wave without compensating for end effect. The radiating element is about 19.5 inches which does take the end effect into account.

It will result in less RF on the outside of the coax.

2935. Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 09:07:14 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <6hAcg.5443$oa3.1513@trnddc08>
Source record: 58977

I have determined a way to feed four dipoles to provide good horizon to horizon coverage at all angles for circularly polarized signals. It works quite well for Low Earth Orbiting satellites. I lack the skills needed to analyze the concept. I would like to make this concept available to anyone who wants to build their own antenna.
I have a working model that seems to have no serious minimums when receiving NOAA satellites at 137 MHz. The concept is quite simple and probably easily understood by any antenna engineer.
Does anyone know where I might locate someone who would have interest in knowing about this antenna concept that I have chosen to call the Cross concept.

Jerry KD6JDJ

2936. Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 09:52:19 UTC
From: Kevin & Natalia <sparc_man@hotmail.com>
Message-ID: <1148377755.519950@ftpsrv1>
Source record: 58978
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi All,

I acquired a Pitch-Prop motor a number of years ago, with the intention of building a antenna rotator.
I still have the intention of doing this, and have checked the motor for operation. This works out very nice, and was able to control it to different speeds with different voltage.
I have a construction design for the mounting of the motor and gearbox to the tower, and antenna.

The problem I have now, is I wish to construct a suitable control unit, with digital readout, and the possibility of controlling via a mini PIC control, or via PC.

I have searched the internet without much success, so my next course of action was to see if anyone on these groups might be of help.
So I put my hands up for HELP! :)

Any help would be gratefully received.

Thanks in Advance.

Kevin, ZL1KFM.

2937. Retard Markie the troll pegs the irony meter

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 11:56:22 UTC
From: whinyslit_lloydie@yahoo.com
Message-ID: <1148385382.868835.229910@y43g2000cwc.googlegroups.com>
Source record: 58979
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

asraped by an_old_friend wrote:
> Brenda Ann wrote:
> > "an_old_friend" <konstans@hotmail.com> wrote in message
> > news:1148340733.169536.23730@38g2000cwa.googlegroups.com...
> > >
> > > Jay wrote:
> > >> I put the ball to a metal grinder and I could easily see an outer F layer
> > >> and then the E layer. I couldn't find a D layer, but it was dark outside
> > > troll
> > >
> >
> > I'm not so sure he's a troll.. it's a funny routine, and probably is meant
> > as such. We really need something to lighten up this NG a little. :)
> I amsure he is a troll

Speaking from experience, dumbass?

2938. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 12:12:53 UTC
From: ml <m@di.net>
Message-ID: <m-F4BEFF.08125623052006@news.verizon.net>
Source record: 58980

In article <4472af4e@nntp.zianet.com>,
BKR <REMOVESPAMrchvid7@lycos.comFilter> wrote:

> ml wrote:
> > hi
> >
> > I was wondering a few things i read about in my sgc tuner manual about
> > dipoles
> >
> >
> > a) they say or sorta recomend that if your making a simple horiz ctr fed
> > dipole, it's 'best' to have one leg longer
> >
> > why is that 'a good idea' what happens that makes this sorta advisable
> >
> >
> > b) they recomend the longer leg to be the rf 'ground'' side , really
> > confused as to why, my gut would tell me to make the hot side the
> > longest leg so i am confused
> >
> >
> >
> > can anyone help me understand the above, i kinda understand how the wave
> > looks on a regular horizontal ctr fed dipole is
> >
> >
> > any help appreciated
>
>
>
> It is the same reason that when you build a standard 2 meter ground
> plane antenna, that the ground plane is constructed with wires or rods
> about 20.5 inches each. That is close to a quarter wave without
> compensating for end effect. The radiating element is about 19.5 inches
> which does take the end effect into account.
>
> It will result in less RF on the outside of the coax.

ahh less rf on outer coax that i get glad i followed the directions!

thanks very much

2939. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 12:14:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <I0Dcg.29256$Lm5.15702@newssvr12.news.prodigy.com>
Source record: 58981

Roy Lewallen wrote:
> Richard Harrison wrote:
>> In algebra, y = mx + b, (the point slope formula), is called linear
>> because it is the graph of a straight line.
>
> But of course you realize that the function y = mx + b doesn't meet the
> requirements of a linear function when applied to network theory.

I knew what Richard meant. Quoting "Linear Network Theory",
by Ferris: "In the functional relationship, h(t)=kf(t), no
matter what h(t) and f(t) represent, the relation h(t)=kf(t)
must be linear. ... An elementary concept, then, is that h(t)
and f(t) are related by a straight line of the form
h(t) = mt + b."
--
73, Cecil http://www.qsl.net/w5dxp

2940. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 12:53:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <3BDcg.29574$Lm5.3231@newssvr12.news.prodigy.com>
Source record: 58983

Roy Lewallen wrote:

> Richard Harrison wrote:
>
>> Cecil, W5DXP wrote:
>> "Assuming the source signal is a pure sine wave, if the standing wave
>> current "isn`t in general sinusoidally shaped (as Roy said)", then the
>> antenna would have to be introducing harmonic radiation that doesn`t
>> exist in the source signal."
>
> Either Cecil is misquoting me, or Richard is misquoting Cecil.

Richard quoted me correctly. I did *NOT* quote you. I merely
stated what I thought you said.

> Cecil calls the total current the "standing wave current".

That is absolutely false. Total current equals standing wave
current plus traveling wave current. Or standing wave current
equals total current minus traveling wave current. Subtract
out the traveling wave component and a pure standing wave
component is left.

Note that you did not quote me. You merely stated what you
thought I said and you were mistaken.

> I never said
> that the standing wave current isn't sinusoidally shaped. I said that
> the *envelope* of the standing wave -- that is, a graph of the magnitude
> of the current on a transmission line as a function of position along
> the line -- is not sinusoidally shaped except in the special case of a
> complete reflection.

The envelope of the standing wave current is the same whether
reflection is complete or not since the traveling wave current
has been subtracted from the total current.

Seems you should have said the total current envelope is not
sinusoidal. The standing wave current envelope is obviously
sinusoidal since the traveling wave has been subtracted.

> This isn't a personal theory, but a very well
> established fact which can easily be derived from fundamental equations.

Please provide a reference that says after the traveling wave
current has been subtracted from the total current, the resulting
standing wave current envelope is not sinusoidal.

> (Or it can even be found clearly stated in texts for those unable to
> understand the derivation.) On antennas, the current distribution
> (magnitude of current vs position) is generally not sinusoidal either,
> although it's approximately so on thin wire antennas.

Just because the scale of the position axis changes with VF doesn't
mean things become non-sinusoidal.

> Assuming that the transmission line is driven with a pure sine wave, the
> forward, reverse, and total currents as a function of *time* will be
> sinusoidal and consequently no harmonics will be generated.

This statement contradicts what I thought you said before. Seems
we are now in agreement.
--
73, Cecil http://www.qsl.net/w5dxp

2941. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 13:25:57 UTC
From: w8ji@akorn.net
Message-ID: <1148390757.341256.120320@i40g2000cwc.googlegroups.com>
Source record: 58984

ml wrote:
> hi
>
> I was wondering a few things i read about in my sgc tuner manual about
> dipoles
>
>
> a) they say or sorta recomend that if your making a simple horiz ctr fed
> dipole, it's 'best' to have one leg longer
>
> why is that 'a good idea' what happens that makes this sorta advisable
>
>
> b) they recomend the longer leg to be the rf 'ground'' side , really
> confused as to why, my gut would tell me to make the hot side the
> longest leg so i am confused
>
>
>
> can anyone help me understand the above, i kinda understand how the wave
> looks on a regular horizontal ctr fed dipole is

That suggestion does not make very much sense.

First, a ground isn't a "better ground" just because it is longer. The lowest impedance and "best" ground or counterpoise occurs when the ground is exactly resonant.

Second, the least common mode current is influenced heavily by the length of the feeder, and is often the least when a dipole antenna is evenly balanced.

The only possible reason for that is to moderate the impedance presented by the antenna, but again that would also take special consideration of the feedline length.

Even a 1/4 wl groundplane does not improve from radials longer than 1/4 wl. As a matter of fact it often gets worse.

Maybe you should ask them why they want customers to do that. It sounds like witchcraft to me.

73 Tom

2942. Re: Special Tower Bolts

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 13:39:26 UTC
From: W8LNA <W8LNA@arrl.net>
Message-ID: <igEcg.1751$oa1.1118@news02.roc.ny>
Source record: 58985

Jeff Dieterle wrote:
> Where do I find the galvanized bolts with the spline under the head to
> assemble a 3-leg tower??
>
>

I go to http://www.fastenal.com/ for real hardware but I don't know if
they have exactly what you desire.

W8LNA

2943. Special Tower Bolts

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 13:41:46 UTC
From: Jeff Dieterle <jdieter@nospam.carlnet.org>
Message-ID: <84062$447302fc$ce6b49db$18022@COMTECK.COM>
Source record: 58982

Where do I find the galvanized bolts with the spline under the head to assemble a 3-leg tower??

2944. www.samovie.tk c cooooooooooooooooool

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 13:51:22 UTC
From: s.rhai@menara.ma
Message-ID: <1148392282.540556.218050@u72g2000cwu.googlegroups.com>
Source record: 58986

www.samovie.tk c cooooooooooooooooooooool

2945. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 13:55:42 UTC
From: richardharrison@webtv.net
Message-ID: <24025-4473145E-1862@storefull-3258.bay.webtv.net>
Source record: 58987

Roy Lewallen, W7EL wrote:
"But of course you realize that the function y = mx + b doesn`t meet the requirements of a linear function when applied to network theory."

Works for me.

Linear means the graph of the function is a straight line.

f(x) = y = mx + b is called linear because its graph is a straight line.

A straight line is the shortest distance between two points.

In y = mx + b, m is a constant determining the slope of the line. x is is the independent variable. b is the offset or point along the x-axis where the line crosses.

y then is a linear function of x because its slope is always mx, but displaced in the x-direction by a constant value, namely b.

y is linear the same as IR is linear, or by substitution, E is linear in Ohm`s law where E=IR. For any value of I, voltage = IR and the graph of I versus E is a straight line with a slope equal to R.

Resistance is a common factor in network theory.

Best regards, Richard Harrison, KB5WZI

2946. Re: Hamvention: Amateur Radio Manufacturers and Unfair Pricing...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 14:06:00 UTC
From: "John L. Sielke" <w2agnNOSPAM@w2agn.net>
Message-ID: <447316C8.1080203@w2agn.net>
Source record: 58988
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.misc,rec.radio.amateur.swap

Billy Smith wrote:
> laborkei wrote:
>
>> Amateur Radio Manufacturers and unfair pricing!
>>
>> Here I sit the day after Dayton, calling around to all the dealers
>> looking
>> for a HF Transceiver. There were some fantastic prices offered on
>> equipment
>> (As much as $500 off list), and the dealers are back to charging full
>> price
>> today.
>>
>> I am told by the dealers I called, that the Manufacturers were making
>> deals
>> with them so they could sell there inventories much cheaper, and the
>> orders
>> had to be taken at Dayton. Today, the day after when most of these orders
>> had not even shipped yet, they are back up to full retail price.
>>
>> To be fair, Manufacturers should allow these prices for a time period
>> after
>> Dayton to give other Amateurs who could not drive to Dayton an
>> opportunity
>> to get the same deals.
>>
>> I think we should all write to them and let them know how we feel.
>> This is
>> unfair !
>>
>>
>
> Cry us a river. They made the offers at Dayton and that was what they as
> private businesses chose to do. You could have either went to Dayton or
> found whatever way to get a radio from there. Get over it.
>
Maybe you can get some left wing liberal whiners to feel sorry for you, but not
likely. This is a free market, remember? Or would you prefer the government
telling businesses what they can charge.

UNBELIEVABLE that some people expect soemthing for nothing all the time.

2947. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 14:08:59 UTC
From: Buck <not@this.time>
Message-ID: <bgb572tado25bo525u9ff4hi2jmg0hq144@4ax.com>
Source record: 58989

>I just tacked on additional ladder line for a total of 91 feet, it's
>draped all over the place. The matchbox tunes more difficult on 75 M
>but tuned right up on 40. The matchbox controls are skewed quite a ways
>off the center point. tuning control is at 26 and match is about 15 so
>it does not seem to like this length any better. I could tack on
>another 15 feet but then I'd have to lay it on the ground which is not
>good. I could shorten up the original 67 feet to perhaps 50 plus but
>that would make it worse?

Suppose you trim the feedline a few inches at the time until the tuner
works on 80 and the other bands as well?

--
73 for now
Buck
N4PGW

2948. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 14:20:42 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <hOmdnZarFMOuh-7ZnZ2dnUVZ_vqdnZ2d@web-ster.com>
Source record: 58990
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Kevin & Natalia wrote:

> Hi All,
>
> I acquired a Pitch-Prop motor a number of years ago, with the intention of
> building a antenna rotator.
> I still have the intention of doing this, and have checked the motor for
> operation. This works out very nice, and was able to control it to different
> speeds with different voltage.
> I have a construction design for the mounting of the motor and gearbox to
> the tower, and antenna.
>
> The problem I have now, is I wish to construct a suitable control unit, with
> digital readout, and the possibility of controlling via a mini PIC control,
> or via PC.
>
> I have searched the internet without much success, so my next course of
> action was to see if anyone on these groups might be of help.
> So I put my hands up for HELP! :)
>
> Any help would be gratefully received.
>
> Thanks in Advance.
>
> Kevin, ZL1KFM.
>
>

Excepting the readout, this should be a fairly routine motor control problem. Depending on what you want to do your control box could be as simple as a current-limited power supply and a couple of switches or as complex as a fully fed-back motion control system.

How's your electronics skills, and how fancy do you want it to be?

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

Posting from Google? See http://cfaj.freeshell.org/google/

"Applied Control Theory for Embedded Systems" came out in April.
See details at http://www.wescottdesign.com/actfes/actfes.html

2949. Explanation wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 14:33:41 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <nvmdncAiGsLfgO7ZRVn-sQ@insightbb.com>
Source record: 58991

The ARRL Product Catalog at the link
http://www.arrl.org/catalog/?item=7571#top
lists a book titled "Stealth Amateur Radio", with a second printing in 2001. However, the catalog entry for this book has "SOLD OUT!" in bold red font. A check for this book on eBay finds one copy available for $100!! I then called the ARRL store and was told that they didn't know when this book would be reprinted and made available. The clerk mentioned something about needing to get the author's permission first.

Since there appears to be a demand for this book, why wouldn't the ARRL rush to get this book reprinted and posted for sale? BTW, is this book any good?

John, N9JG

2950. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 14:33:44 UTC
From: richardharrison@webtv.net
Message-ID: <6571-44731D48-1639@storefull-3251.bay.webtv.net>
Source record: 58993

Roy Lewallen, W7EL wrote:
"Either Cecil is misquoting me, or Richard is misquoting Cecil."

I apologize if I misquoted anyone. It was unintentional,

On page 239 of Kraus` 1950 edition of "Antennas" he wrote:
"It is generally assumed that the current distribution of an infinitesimally thin antenna (l/a=infinity) is sinusoidal, and that the phase is constant over a 1/2-wavelength interval, changing abruptly by 180-degrees between intervals."

Cosine has the same shape as sine. They are identical except for a 90-degree phase displacement. Sine starts at zero. Cosine starts at one.

Sinusoidal covers both sine and cosine shapes.

Best regards, Richard Harrison, KB5WZI

2951. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 14:34:14 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1148394854.797639.136780@i39g2000cwa.googlegroups.com>
Source record: 58992

What did you have in mind? Do you want to profit from the idea, or just make it freely available? Just what help (if any) are you looking for: help with analysis, help with writing a description, help with promoting it, help reviewing the idea and comparing and contrasting it to previous ideas, or what? There are lots of folk here who could potentially have an interest, and some even have a deep enough understanding of antennas that they might actually be able to help.

Cheers,
Tom

2952. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 14:45:55 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148395555.325411.197540@i39g2000cwa.googlegroups.com>
Source record: 58994

Is it something like the Lindenblad?

http://www.phys.unsw.edu.au/~map/weather/notes/buildyourown/lindenblad.html

I'm always interested in an antenna design. Making some drawings or taking some photos (or both) and putting them up on a website with some measurements is a fine way to publish your construction.

If you are trying to make some money, I can help for some percentage to be decided :-)

Seriously, though, everyone would be interested in the concept. Put it up on a webpage, even if just a couple of photos. I think QSL.net and some other sites will give you hosting.

73,
Dan
N3OX
www.n3ox.net

2953. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 14:48:05 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <127685875615t64@corp.supernews.com>
Source record: 58995

I don't think Icom would jack you around about this, do you really?
Marine radios are a large part of their business and they do know their
business. Uhmmm...this isn't one of those ionosphere posts is it?

Butch

Will wrote:
> I want to set up a hf antenna for my sailboat.
>
> I have read various guides from Icom etc.
>
> They suggest running copper foil to a Dynaplate and use sea water as
> the ground. How can this work when the Dynaplate is below sea water?
>
> Is sea water equal to copper wire radials as a RF ground system?
>
> Does sea water make a good enough ground without radials?
>
> How can a piece of copper metal about 1 ft square equal several
> radials laying on the boats deck?
>
> Why do i have to use copper foil when most other people suggest using
> ordinary copper wire?
>
> Over seawater what would be the best number of radials to use
> considering that maximum length i can run is 40 ft. I am planning to use
> a backstay antenna with a SGC 230 Tuner.
>
> All ideas and comments appreciated.
>
> Will

2954. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:05:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ywFcg.76009$_S7.28525@newssvr14.news.prodigy.com>
Source record: 58997

Jerry Martes wrote:
> I have determined a way to feed four dipoles to provide good horizon to
> horizon coverage at all angles for circularly polarized signals.

Hi Jerry, how is your antenna superior to a two-dipole turnstile?
--
73, Cecil http://www.qsl.net/w5dxp

2955. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:05:52 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <kxFcg.7286$ix2.3400@trnddc03>
Source record: 58996

Cecil Moore wrote:
> Roy Lewallen wrote:
>
>> Richard Harrison wrote:
>>
>>> Cecil, W5DXP wrote:
>>> "Assuming the source signal is a pure sine wave, if the standing wave
>>> current "isn`t in general sinusoidally shaped (as Roy said)", then the
>>> antenna would have to be introducing harmonic radiation that doesn`t
>>> exist in the source signal."
>>
>>
>> Either Cecil is misquoting me, or Richard is misquoting Cecil.
>
>
> Richard quoted me correctly. I did *NOT* quote you. I merely
> stated what I thought you said.
>
>> Cecil calls the total current the "standing wave current".
>
>
> That is absolutely false. Total current equals standing wave
> current plus traveling wave current. Or standing wave current
> equals total current minus traveling wave current. Subtract
> out the traveling wave component and a pure standing wave
> component is left.

I thought I was following this somewhat, but now it appears that I am not.

I thought there were two traveling waves, forward and reverse, with the reverse wave being a reflection of the forward wave from the end of the antenna. I thought that the total current was the sum of the two waves, could be measured with an ammeter, and that it could be referred to as the standing wave.

Are you now saying that the standing wave and the reverse wave are the same wave?

Confusedly,
John

2956. Re: Explanation wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:20:34 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148397634.621814.160690@j73g2000cwa.googlegroups.com>
Source record: 58998

Yikes! Give me $100 and I'll keep putting up steath amateur radio ideas on www.n3ox.net... oh, but I guess I'm going to keep doing that for free.

I doubt the book is quite that good... I'd like to read it since I'm stuck in an apartment for a while.

I imagine that it's like the other ARRL station/antenna books, there are a lot of things that you would have seen other places, as there are plenty of flagpole and magnetic loop antennas, but there are still some novel approaches and good reference material for things you need to look at again.

It is a bit strange that they're awaiting permission from the author... maybe he's incommunicado or something.

73
Dan
N3OX

2957. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:31:29 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148398289.804642.102440@i40g2000cwc.googlegroups.com>
Source record: 58999
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

I'm going to recommend against electronic feedback unless you are a control systems hobbyist... I did PID (proportional-integral-derivative) servo on a homebrew rotating mast so I didn't need a readout and eventually decided to go with a rotation sensing pot, a voltage-to-current converter, and a surplus meter.

This was after I tweaked the PID to get rid of the oscillations but still had some average position errors...

I guess with a digital system it would be easier to optimize. Mine was all analog... and only one op amp, so the settings interacted :-)

Making the motor go and watching the meter is a more sensitive and intelligent form of feedback, as long as you've got a system you can't break by turning too far.

A simple pulse-width-modulator for speed control might be in the cards though. That way you send a variable duty cycle full-on full-off pulse train to the motor. Good torque and you don't need a variable power supply just to run the rotor.

I'm going to add one to my rotator soon... I've got that on manual right now... pulsing the switch makes a nice slow smooth rotation!

If you do like electronics projects for the sake of electronics projects, feedback control is an interesting way to go, though.

73,
Dan
N3OX

2958. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:33:09 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148398389.824086.224190@j73g2000cwa.googlegroups.com>
Source record: 59000
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Oh, my bad. you're going to NEED some feedback to control it with a
PC.

OK, so let me retract the advice against it... possibly you could do it
all in software...

Dan
N3OX

2959. Re: Special Tower Bolts

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:38:06 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148398686.208071.43300@g10g2000cwb.googlegroups.com>
Source record: 59001

McMaster Carr at mcmaster.com has a lot of hardware too.

Is the SHAFT of these bolts splined near the head? Never seen those,
but it sounds like a good idea.

There are ones with the serrations on the bottom of the head itself.
McMaster has those, they're pretty common.

Dan
N3OX

2960. Re: Explanation wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:38:18 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <5NydndX6K7n6se7ZnZ2dnUVZ_sOdnZ2d@insightbb.com>
Source record: 59002

You have an interesting web site. Thanks for the link.

<n3ox.dan@gmail.com> wrote in message
news:1148397634.621814.160690@j73g2000cwa.googlegroups.com...
> Yikes! Give me $100 and I'll keep putting up steath amateur radio
> ideas on www.n3ox.net... oh, but I guess I'm going to keep doing that
> for free.
>

2961. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:48:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <X8Gcg.80250$H71.14927@newssvr13.news.prodigy.com>
Source record: 59003

John - KD5YI wrote:
> I thought there were two traveling waves, forward and reverse, with the
> reverse wave being a reflection of the forward wave from the end of the
> antenna. I thought that the total current was the sum of the two waves,
> could be measured with an ammeter, and that it could be referred to as
> the standing wave.

If the antenna were lossless, that would be true. However, the
antenna loses RF energy to radiation, ground, I^2*R, etc. Since
the same thing is true of a transmission line, let's first look
at a transmission line.

Let's say we measure (at the tuner)
a forward power of 100 watts and a reflected
power of 80 watts. We can assume that the losses in the line
and the power delivered to the load add up to 20 watts. The
20 watts can be associated with a pure forward traveling wave.
The other 80 watts of the forward power and the 80 watts of
reflected power can be associated with a pure standing wave.
The equations for such would look something like this.

Itot = Ifor*cos(kx+wt) + Iref*cos(kx-wt) =

Itot = I1*cos(kx+wt) + I2*cos(kx)*cos(wt)

I1 would be considered to be the part of the traveling wave that
is delivering net power to the load. I2 would be considered to be
the standing wave current delivering no net power to the load.
It's just another way of mathematically partitioning the currents.

Let's assume for the sake of discussion that the forward wave at
the antenna feedpoint is 100 watts and the reflected wave at the
antenna feedpoint is 80 watts. That means there are 20 watts of
total losses. We can partition the currents in the same way that
we did in the transmission line.

Incidentally, if we assume the antenna is 1/2 wavelength with a
Z0 of 600 ohms, we can calculate the feedpoint impedance just as
if it were a piece of transmission line with a resistive termination.
Anybody want to try that exercise? What impedance is seen looking
into a 600 ohm 1/4WL open stub when the forward power is 100 watts
and the reflected power is 80 watts?

> Are you now saying that the standing wave and the reverse wave are the
> same wave?

The reverse wave is half of the standing wave. The other half of
the standing wave is part of the forward wave. One might say that
the energy in the reverse wave neutralizes the ability of the
forward wave to deliver that same amount of energy to the load.
And indeed, we know the power delivered to the load is the forward
power minus the reflected power.
--
73, Cecil http://www.qsl.net/w5dxp

2962. Re: Yacht RF ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:48:47 UTC
From: richardharrison@webtv.net
Message-ID: <24587-44732EDF-17@storefull-3256.bay.webtv.net>
Source record: 59005

Will wrote:
"Does sea water make a good enough ground without radials?"

It`s the best you can get in a boat at sea, The point is to get a good connection to the sea. You don`t need radials for that. That`s why a thin copper plate is recommended. Copper is durable and poisonous to sea organisns which may foul the surfaces of other materials.

Skin effect applies. Bolting to a spot inside a metal hull means the RF must travel from the bolt location inside the hull (it can`t penetrate the hull) to an edge where it reaches from the inside surface to the outside surface and thence to the waterline.

DC resistsance of a conductor is resistivity x length divided by crossection. AC resistance is more but proportioned to the DC resistance. A large crossection or area produces a low resistance. That`s why the plate is better for contacting the water than a wire. Its also why the seawater has a low resistance despite a higher resistivity than copper. The huge crossection of seawater has very low resistance in most cases and its reactance is low too. Low resistance and low reactance make a good path for RF.

Best regards, Richard Harrison, KB5WZI

2963. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:52:44 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148399563.958468.40310@j55g2000cwa.googlegroups.com>
Source record: 59004

Tom,

I expect there's not supposed to be any feedline between the antenna
and the tuner in this installation, so I think that it probably is to
moderate the impedance for a ham band antenna cut for the lowest band.

It is witchcraft, but if you're selling antenna tuners to people who
don't know anything about the impedance issues with an all band wire,
it's better to give them a rule of thumb to avoid cooking the tuner,
especially when they don't read the bit in the manual where it's a
"100W" tuner on SSB and they fire up on RTTY.

BKR, where did you get that explanation?

I think you should measure the RF on the outside of your coax when it's
an odd multiple of a quarter wave long including the loading effect of
the case of the radio and the ground half of your dipole is made 5%
longer than the other half.

Listen to Tom. He knows common-mode current on the feedline!

Dan
N3OX

2964. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:55:26 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <HfudnZtD2umhrO7ZRVnyhA@bt.com>
Source record: 59007

A 6" square plate makes an adequate ground when immersed in salt sea water. That is unless the transmitter power exceeds 10 kW.

2965. Re: Multiband doublet feedline length

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 15:55:44 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-D78945.10552223052006@news-rdr-03.rdc-kc.rr.com>
Source record: 59006

In article <bgb572tado25bo525u9ff4hi2jmg0hq144@4ax.com>,
Buck <not@this.time> wrote:

> >I just tacked on additional ladder line for a total of 91 feet, it's
> >draped all over the place. The matchbox tunes more difficult on 75 M
> >but tuned right up on 40. The matchbox controls are skewed quite a ways
> >off the center point. tuning control is at 26 and match is about 15 so
> >it does not seem to like this length any better. I could tack on
> >another 15 feet but then I'd have to lay it on the ground which is not
> >good. I could shorten up the original 67 feet to perhaps 50 plus but
> >that would make it worse?
>
> Suppose you trim the feedline a few inches at the time until the tuner
> works on 80 and the other bands as well?

It's actually working pretty good right now and I have the ladder line
all symmetrical in the way it's routed from the antenna. I'm using my
original 126 ft long horizontal wire fed in the middle with 450 ohm
ladder which is 67 feet long going to my Johnson KW matchbox. It tunes
it on 75 and 40. 40 is a little tricky but I can get there ok. I also
use this same antenna as an inverted L on 160 by re-routing the ladder
via a knife switch to my Drake MN-2700 tuner. It tunes very nice on
160. When I get time from painting the house and other chores I will
try to sit down and learn EZnec, then tweak the feedline and maybe the
antenna too. I wish I had more room, I love to experiment with wire
type antennas.

73
Dale, K9VUJ

--
Email: dalej2@mac.com

2966. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:01:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <23c672tptm5qalf9vhnm3tn1mtotf509hs@4ax.com>
Source record: 59008

On Tue, 23 May 2006 23:44:50 +1000, Will <bluehyhena@hotmail.com>
wrote:
>They suggest running copper foil to a Dynaplate and use sea water as
>the ground. How can this work when the Dynaplate is below sea water?

Hi Will,

Below is better than above, to say the least. How much below is
immaterial.

>Is sea water equal to copper wire radials as a RF ground system?

Skip the pursuit of the Holy Grail in radials, this may lead you to
start carrying buckets of dirt which screws up buoyancy.

>Why do i have to use copper foil when most other people suggest using
>ordinary copper wire?

Probably more surface area.

>All ideas and comments appreciated.

How good (or poor) sea water is for matching and loss, is seeing the
glass 3/4's empty. How good sea water is for propagation is seeing
the pitcher nearby and filling your glass several times.

73's
Richard Clark, KB7QHC

2967. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:11:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <9jc6729qird5h3v6eb2gvg9ag6b41ttkhf@4ax.com>
Source record: 59010
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On 23 May 2006 08:31:29 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

>This was after I tweaked the PID to get rid of the oscillations but
>still had some average position errors...
>
>I guess with a digital system it would be easier to optimize. Mine was
>all analog... and only one op amp, so the settings interacted :-)

Hi Dan,

If anything, going digital has all the prospects of thrashing the
antenna into shreds. The oscillations you speak of are eminently
suited for an analog solution - you simply have to understand the
nature of resonance, coupling (over, critical, and under), and attack.
If you don't, translating them into binary code will be impossible.

For instance, your average position errors were probably due to
under/overshoot and a too heavily dampened system with too much gain.
No computer program is going to improve that.

73's
Richard Clark, KB7QHC

2968. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:12:02 UTC
From: Robert Kubichek <bobn9lvu@sbcglobal.net>
Message-ID: <4dgqilF1987e2U1@individual.net>
Source record: 59009
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Kevin & Natalia wrote:
> Hi All,
>
> I acquired a Pitch-Prop motor a number of years ago, with the intention of
> building a antenna rotator.
> I still have the intention of doing this, and have checked the motor for
> operation. This works out very nice, and was able to control it to different
> speeds with different voltage.
> I have a construction design for the mounting of the motor and gearbox to
> the tower, and antenna.
>
> The problem I have now, is I wish to construct a suitable control unit, with
> digital readout, and the possibility of controlling via a mini PIC control,
> or via PC.
>
> I have searched the internet without much success, so my next course of
> action was to see if anyone on these groups might be of help.
> So I put my hands up for HELP! :)
>
> Any help would be gratefully received.
>
> Thanks in Advance.
>
> Kevin, ZL1KFM.
>
>

It is entirely doable, check here
"http://forums.parallax.com/forums/default.aspx" for ideas on how to implement
your project using a Basic Stamp...
I would do it with digital position sensing, with an lcd display showing
direction of antenna..

Bob N9LVU

2969. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:13:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q2d67291pmbmpl0hpv6scoueecc1hpiplo@4ax.com>
Source record: 59011
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On 23 May 2006 08:33:09 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

>Oh, my bad. you're going to NEED some feedback to control it with a
>PC.
>
>OK, so let me retract the advice against it... possibly you could do it
>all in software...

Hi Dan,

To underline my last point about software, did software prevent this
error? [Hint, eyes were an analog solution.]

73's
Richard Clark, KB7QHC

2970. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:30:32 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <3hd672d7l08fc22b4h82ta5dmpng72uoah@4ax.com>
Source record: 59012

On Tue, 23 May 2006 09:33:44 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Sinusoidal covers both sine and cosine shapes.

Hi Richard,

Given two things:

1.) the frequency of this allusion to shape, sin/cos;
B.] the tolerance of errors that are sometimes as great as ï¿½59%;

it then follows that the shape of current distribution along the quarterwave element can also be described as a quarter circle arc.

Hello to those avidly seeking to participate,

The question of the new millennium must be: "What significance does this shape bring to us?" For those with misty-eyed philosophies, please adorn your response with stars and moon beams in the Subject line as a courtesy to serious correspondents.

73's
Richard Clark, KB7QHC

2971. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:37:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <d6e672thneibb62iidcfvp4lqi46jmed8v@4ax.com>
Source record: 59014

On Tue, 23 May 2006 08:55:42 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>f(x) = y = mx + b is called linear because its graph is a straight line.

Hi Richard,

Try listening to Mozart with a speaker driven with such a "linear" gain device. [Some things are so simple, they defy further analysis.]

This, again, goes to the matter of a finely staged distortion trial with tone-deaf judges.

73's
Richard Clark, KB7QHC

2972. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:38:07 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148402287.144951.51340@y43g2000cwc.googlegroups.com>
Source record: 59013
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Richard,
Agreed on the suitability of an analog solution... I certainly made some steps toward critically damped operation. My circuit design was bad, though.

I didn't have a very analyzable problem; the rotator rotates one of those fiberglass surplus military masts with respect to another, so I get a lot of stick-slip, especially if there's a breeze (there are 12 feet of mast above this thing).

This is not to say a suitable set of P, I and D couldn't be found, and it would have been pretty slick if I'd set up right for empirical loop tuning, but I hadn't done that. I got pretty close by soldering components in and out.

I would have had a better time with a real multiple op amp circuit with a knob for each of P, I and D.

I think you hit the nail on the head regarding too heavily dampened with too much gain in the antenna rotator case. I just couldn't really tune the thing.

In my case, I just decided to throw up my hands and go to the simplest method so I could get on the air with a rotating antenna. I have a quite successful analog servo going every day with my remote antenna tuner (www.n3ox.net/projects/servo). That one is ever-so-slightly underdamped, proportional only, and works nicely. There's a little bit of hysteresis and it certainly could be improved, but I stopped at the good-enough-for-daily-operation level.

I guess what I meant by "going digital" was that depending on whether you're more comfortable with programming than a soldering iron (not me!) you might think about having a simple motor drive circuit and implement the admittedly complex PID loop in software/firmware.

You're absolutely right that you can't do this if you don't know how to do the analog...

73,
Dan
N3OX

2973. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:41:27 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1276ept16to7h81@corp.supernews.com>
Source record: 59015

> Cecil Moore wrote:
>> Roy Lewallen wrote:
>> . . .
>> Richard quoted me correctly. I did *NOT* quote you. I merely
>> stated what I thought you said.
>>
>>> Cecil calls the total current the "standing wave current".
>>
>>
>> That is absolutely false. Total current equals standing wave
>> current plus traveling wave current. Or standing wave current
>> equals total current minus traveling wave current. Subtract
>> out the traveling wave component and a pure standing wave
>> component is left.

I could have sworn Cecil had used it in that sense before. But Ok, I'll go along with the new definition. Any basic analysis of transmission line operation shows that the total current is simply the sum of the traveling wave currents. Consequently the "standing wave current" as defined by Cecil is zero. So by "standing wave current", Cecil means zero.

This is getting stranger by the day.

Roy Lewallen, W7EL

2974. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:45:06 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148402706.618224.273650@j73g2000cwa.googlegroups.com>
Source record: 59016
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

hahaha!

Dude, I've got baaaaad software.

Took me a long time to get that.

CU,
Dan

2975. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:52:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1276ff6itsva2ca@corp.supernews.com>
Source record: 59017

I'm sure that somewhere in one of your texts you can find the definition of linear as applied to networks. Once you do, though, a little thought is required to discover that y = mx + b doesn't satisfy the criteria for network linearity.

To be linear, a network has to satisfy superposition. This means that:

If y1 is the response to excitation x1 and y2 is the response to excitation x2, then the response to x1 + x2 must be y1 + y2.

Let's try that with your function.

The response to x1 is:

y(x1) = mx1 + b

The response to x2 is:

y(x2) = mx2 + b

The sum of y(x1) and y(x2) is:

y(x1) + y(x2) = m(x1 + x2) + 2b

But response to x1 + x2 is:

y(x1 + x2) = m(x1 + x2) + b

These are not equal as they must be to satisfy superposition and therefore the requirements for linearity.

Roy Lewallen, W7EL

Richard Harrison wrote:
> Roy Lewallen, W7EL wrote:
> "But of course you realize that the function y = mx + b doesn`t meet the
> requirements of a linear function when applied to network theory."
>
> Works for me.
>
> Linear means the graph of the function is a straight line.
>
> f(x) = y = mx + b is called linear because its graph is a straight line.
>
> A straight line is the shortest distance between two points.
>
> In y = mx + b, m is a constant determining the slope of the line. x is
> is the independent variable. b is the offset or point along the x-axis
> where the line crosses.

>
> y then is a linear function of x because its slope is always mx, but
> displaced in the x-direction by a constant value, namely b.
>
> y is linear the same as IR is linear, or by substitution, E is linear in
> Ohm`s law where E=IR. For any value of I, voltage = IR and the graph of
> I versus E is a straight line with a slope equal to R.
>
> Resistance is a common factor in network theory.
>
> Best regards, Richard Harrison, KB5WZI
>

2976. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:54:20 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1148403260.256617.316140@j73g2000cwa.googlegroups.com>
Source record: 59018
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

whinyslit_lloydie@yahoo.com wrote:
> asraped by an_old_friend wrote:
> > Brenda Ann wrote:

> > I amsure he is a troll
>
> Speaking from experience, dumbass?
nope

2977. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 16:54:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8cf672pr5af9uv5iad1insf6m963fna96j@4ax.com>
Source record: 59019
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

On 23 May 2006 09:38:07 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

>You're absolutely right that you can't do this if you don't know how to
>do the analog...

Hi Dan, All,

The single loudest voice on these matters is Robert Pease at National
Semiconductor. For streaming courses/lectures on this very topic,
visit:
http://www.national.com/nationaltv/index.html

I've been following Bob's no-nonsense contributions for more than 25
years now.

73's
Richard Clark, KB7QHC

2978. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 17:00:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1276ftr2cm9h294@corp.supernews.com>
Source record: 59020

Richard Harrison wrote:
> Gene Fuller wrote:
> "Terman certainly did not deny the existence of skin effect that keeps
> fields out of the interior of conductors.'
>
> true. The point is, shielding from magnetic fields is different from
> electric fields. On page 35 of his 1955 edition, Terman writes:
> "Magnetic flux in attempting to pass through a shield (copper or
> aluminum) induces voltage in the shield which gives rise to eddy
> currents. These eddy currents oppose the action of the flux, and in
> large measure prevent its penetration through the shield."
> . . .

Am I mistaken, but is this not a clear statement that a copper or aluminum shield will block magnetic flux, along with an explanation of why it happens?

Roy Lewallen, W7EL

2979. Re: HF broadcasting antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 17:10:35 UTC
From: clifto <clifto@gmail.com>
Message-ID: <b9sbk3-vf8.ln1@remote.clifto.com>
Source record: 58926
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

```
m II wrote:
> m II wrote:
>> clifto wrote:
>>>1. Your English is far better than my Hungarian.
>
> The poster's .sig was a Slavic language, not Hungarian.

I knee-jerk associated .hr with Hungary. Oops. Guess my Domainian is as
bad as my Hungarian.

--
Britney Spears' Guide to Semiconductor Physics
<http://britneyspears.ac/lasers.htm>
```

2980. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 17:17:31 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1148404651.495761.262510@y43g2000cwc.googlegroups.com>
Source record: 59021

Seems pretty clear to me, Roy. The effectiveness of a copper strap around a mains-frequency power transformer at reducing the exterior magnetic field is well known and often used. It's all very clear from Faraday's law of magnetic induction: the net magnetic flux through an area enclosed by a perfect conductor may not change, so time-varying magnetic fields are perfectly blocked by perfect conductors. Copper's a reasonable approximation of a perfect conductor in the case of RF shields.

Cheers,
Tom

2981. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 17:18:10 UTC
From: w8ji@akorn.net
Message-ID: <1148404690.891299.235780@38g2000cwa.googlegroups.com>
Source record: 59022

Roy Lewallen wrote:
> Richard Harrison wrote:
> > Gene Fuller wrote:
> > "Terman certainly did not deny the existence of skin effect that keeps
> > fields out of the interior of conductors.'
> >
> > true. The point is, shielding from magnetic fields is different from
> > electric fields. On page 35 of his 1955 edition, Terman writes:
> > "Magnetic flux in attempting to pass through a shield (copper or
> > aluminum) induces voltage in the shield which gives rise to eddy
> > currents. These eddy currents oppose the action of the flux, and in
> > large measure prevent its penetration through the shield."
> > . . .
>
> Am I mistaken, but is this not a clear statement that a copper or
> aluminum shield will block magnetic flux, along with an explanation of
> why it happens?
>
> Roy Lewallen, W7EL

It would only be a clear statement to those who understand what was
quoted from Terman.

If a person is confused by or somehow DOESN'T understand what Terman is
saying, he or she might take it to mean magnetic fields can travel
unimpeded through a shield.

It sure is difficult to drive a stake through the heart of myths like
the loop shield "shielding the electric field and not the magnetic
field" when clearly written text in dozens of engineering textbooks is
misunderstood.

73 Tom

2982. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 17:20:47 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6tg672hpai08af8rl1ma3a8n3uv0ut6b01@4ax.com>
Source record: 59023

On 23 May 2006 10:17:31 -0700, "K7ITM" <k7itm@msn.com> wrote:

>Seems pretty clear to me, Roy. The effectiveness of a copper strap
>around a mains-frequency power transformer at reducing the exterior
>magnetic field is well known and often used. It's all very clear from
>Faraday's law of magnetic induction: the net magnetic flux through an
>area enclosed by a perfect conductor may not change, so time-varying
>magnetic fields are perfectly blocked by perfect conductors. Copper's
>a reasonable approximation of a perfect conductor in the case of RF
>shields.

Hi Tom,

However, Richard's explanation is the analogue of the effectiveness of
a copper strap (with a non-contacting overlap so as to not be a
shorted turn) between windings of a mains-frequency power transformer,
and grounded to provide electrostatic separation of the two circuits.

73's
Richard Clark, KB7QHC

2983. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 17:35:45 UTC
From: clifto <clifto@gmail.com>
Message-ID: <hotbk3-eh8.ln1@remote.clifto.com>
Source record: 59025
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

Ed wrote:
> Jay <Jpegged@b4qrt.net> wrote in
> news:jOrcg.651$Sf2.175@newsread1.news.pas.earthlink.net:
>
>> I put the ball to a metal grinder and I could easily see an outer F
>> layer and then the E layer. I couldn't find a D layer, but it was
>> dark outside and there's not supposed to be a D layer at night. Neat
>> how antenna's can be manufactured to do that.
>>
>> Just passed my tech and General on Sunday so I'll be on the bands as
>> soon as I find out my callsign and get an ionsphere for my antenna. I
>> destroyed the old one on the grinder and I hear you need a good
>> ionsphere to shoot good skip and hear far away stations. Reception has
>> been really shitty lately without the ionsphere. I looked through the
>> last 4 issues of QST and I couldn't find anyone selling ionsphere's.
>> Where can I get one, or do I have to buy a whole new antenna?
>>
>
> You don't need a new one. The old one probably got stuck in your coax
> by back-feed when you were grinding. Just get an RF brush and give your
> coax a few swipes and the ionosphere should pop right back out!

Don't forget the electron grease.

--
Britney Spears' Guide to Semiconductor Physics
<http://britneyspears.ac/lasers.htm>

2984. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 17:49:25 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-2773C9.09500223052006@netnews.worldnet.att.net>
Source record: 59024

In article <127685875615t64@corp.supernews.com>,
Butch Magee <lynyrd@cableone.net> wrote:

> I don't think Icom would jack you around about this, do you really?
> Marine radios are a large part of their business and they do know their
> business. Uhmmm...this isn't one of those ionosphere posts is it?
>
> Butch
>
>
>
>
> Will wrote:
> > I want to set up a hf antenna for my sailboat.
> >
> > I have read various guides from Icom etc.
> >
> > They suggest running copper foil to a Dynaplate and use sea water as
> > the ground. How can this work when the Dynaplate is below sea water?
> >
> > Is sea water equal to copper wire radials as a RF ground system?
> >
> > Does sea water make a good enough ground without radials?
> >
> > How can a piece of copper metal about 1 ft square equal several
> > radials laying on the boats deck?
> >
> > Why do i have to use copper foil when most other people suggest using
> > ordinary copper wire?
> >
> > Over seawater what would be the best number of radials to use
> > considering that maximum length i can run is 40 ft. I am planning to use
> > a backstay antenna with a SGC 230 Tuner.
> >
> > All ideas and comments appreciated.
> >
> > Will

No, Not an Ionsphere Post, just a guy who has no clue about the
technology that he wants to use, and he is asking questions, trying
to learn. From the replys he has received so far, he is finding out
that 99% of the hams, don't have a clue about MF/HF Marine Radio
Antenna systems Design, either. I suggest that he head on over to
rec.boat.electronics, and ask Larry, Gary S., Old Chief Lynn, or one
of the other Old Salts, that have been doing these installations for

decades, and have the experience in the technology being asked about. Most hams think that MF/HF Marine Radio Antenna Systems design should follow the same rules that Land Startions use. Well that isn't the case, and usually ends up is a "Piss Poor", marginal system that only talks "when the Band is open", and "when the Band is open" even a wet noodle will radiate enough to communicate.

Me

2985. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 18:35:16 UTC
From: chuck <nospam@nospam.net>
Message-ID: <EBIcg.6721$y4.545@newsread2.news.pas.earthlink.net>
Source record: 58927

Richard Clark wrote:
> On Tue, 23 May 2006 23:44:50 +1000, Will <bluehyhena@hotmail.com>
> wrote:
>> They suggest running copper foil to a Dynaplate and use sea water as
>> the ground. How can this work when the Dynaplate is below sea water?
>
> Hi Will,
>
> Below is better than above, to say the least. How much below is
> immaterial.
>
>> Is sea water equal to copper wire radials as a RF ground system?
>
> Skip the pursuit of the Holy Grail in radials, this may lead you to
> start carrying buckets of dirt which screws up buoyancy.
>
>> Why do i have to use copper foil when most other people suggest using
>> ordinary copper wire?
>
> Probably more surface area.
>
>> All ideas and comments appreciated.
>
> How good (or poor) sea water is for matching and loss, is seeing the
> glass 3/4's empty. How good sea water is for propagation is seeing
> the pitcher nearby and filling your glass several times.
>
> 73's
> Richard Clark, KB7QHC

A few additional questions along these lines for the group (with some paraphrasing):

1. What is the skin depth in salt water at 14 MHz? How would this affect a ground plate at four feet below the surface?

2. What would the ohmic losses be over a one square foot by 33 foot path through salt water?

3. How well would the ground plate work on fresh water bodies, such as much of the Chesapeake, the Great Lakes, and various rivers and tributaries often used by cruisers? How would it compare with radials over fresh water?

4. Can anyone cite a published and reproducible study in which the RF losses through salt water were measured and compared with losses through

one or more copper wire "radials" on or below deck of a typical cruising vessel? Or is there a published theoretical analysis of this comparison? Looking for more than the casual, anecdotal stuff.

5. Will a four foot length of wire dropped into saltwater provide a "good" RF "ground" and on what is the answer based?

I need enlightenment!

Thanks, and 73,

Chuck
NT3G

2986. Re: Hamvention: Amateur Radio Manufacturers and Unfair Pricing...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 18:41:07 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <vil6725our1j6dg7604knhcv1f8mb3kjem@4ax.com>
Source record: 58928

On Tue, 23 May 2006 10:06:00 -0400, "John L. Sielke"
<w2agnNOSPAM@w2agn.net> wrote:

>Billy Smith wrote:
>> laborkei wrote:
>>
>>> Amateur Radio Manufacturers and unfair pricing!
>>>
>>> Here I sit the day after Dayton, calling around to all the dealers
>>> looking
>>> for a HF Transceiver. There were some fantastic prices offered on
>>> equipment
>>> (As much as $500 off list), and the dealers are back to charging full
>>> price
>>> today.
>>>
>>> I am told by the dealers I called, that the Manufacturers were making
>>> deals
>>> with them so they could sell there inventories much cheaper, and the
>>> orders
>>> had to be taken at Dayton. Today, the day after when most of these orders
>>> had not even shipped yet, they are back up to full retail price.
>>>
>>> To be fair, Manufacturers should allow these prices for a time period
>>> after
>>> Dayton to give other Amateurs who could not drive to Dayton an
>>> opportunity
>>> to get the same deals.
>>>
>>> I think we should all write to them and let them know how we feel.
>>> This is
>>> unfair !
>>>
>>>
>>
>> Cry us a river. They made the offers at Dayton and that was what they as
>> private businesses chose to do. You could have either went to Dayton or
>> found whatever way to get a radio from there. Get over it.
>>
>Maybe you can get some left wing liberal whiners to feel sorry for you, but not
>likely.

Ahem, being a liberal left winger, why do you think folks of my ilk
would feel sorry for the gentleman? A sale is a sale, and sales are
always are for a limited time only. Politics has nada to do wit'it...

bob
k5qwg

> This is a free market, remember? Or would you prefer the government
>telling businesses what they can charge.
>
>UNBELIEVABLE that some people expect soemthing for nothing all the time.

2987. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 18:52:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <DRIcg.76070$_S7.39388@newssvr14.news.prodigy.com>
Source record: 58929

Roy Lewallen wrote:
> Any basic analysis of transmission
> line operation shows that the total current is simply the sum of the
> traveling wave currents. Consequently the "standing wave current" as
> defined by Cecil is zero. So by "standing wave current", Cecil means zero.

Your last two statements are false. Please stop trying
to tell others what I mean when it is obvious that you
don't know what I mean.

> This is getting stranger by the day.

Why can't you and I just have a reasonable technical
discussion? Sooner or later, the readers who care at
all about the truth are going to see through your
attempts to falsify what I have said.

Since you obviously have not understood what I said in
the past I guess I need to simplify it for you so here goes:

Let A be the forward traveling current.

Let B be the rearward traveling current.

Let C be the part of the forward traveling current
that flows through the load.

Let D be the part of the forward traveling current
that doesn't flow through the load and becomes B
after being reflected.

A = C + D The total forward current is divided
into two components, one accepted by the load and
one rejected by the load.

The following is phasor addition

Total Current = A + B = (C + D) + B = C + (D + B)

(D + B) is the pure standing wave current component,
a part of the forward current equal to the reflected
current.

The total current is indeed the phasor sum of the
forward and reflected current.

The total current is also the sum of the load current
plus the pure standing wave current. The pure standing
wave current envelope is sinusoidal.

--
73, Cecil http://www.qsl.net/w5dxp
The day a Guru starts believing that He already knows
everything is the day He becomes hopelessly ignorant.

2988. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 18:55:20 UTC
From: Mr_Simon55@yahoo.com
Message-ID: <1148410520.479296.296360@j73g2000cwa.googlegroups.com>
Source record: 58930
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

an_old_friend wrote:
> W...@yahoo.com wrote:
> > markie the retard dreams of sucking hot hammie cock!
> I get all I want no need for me to dream
>
> get help

so you admit you're a filthy pervert.
you love to say "get help".....right back at ya!

here's your help faggot.

http://www.godhatesfags.com

2989. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 18:57:16 UTC
From: an old freid to some a nightmare to steve <kb9rqz__ars@hotmail.com>
Message-ID: <1148410636.449198.17170@j55g2000cwa.googlegroups.com>
Source record: 58931
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

Mr_Simo...@yahoo.com wrote:
> an_old_friend wrote:
> > W...@yahoo.com wrote:
> > > markie the retard dreams of sucking hot hammie cock!
> > I get all I want no need for me to dream
> >
> > get help
>
> so you admit you're a filthy pervert.
> you love to say "get help".....right back at ya!
>
> here's your help faggot.
>
> http://www.godhatesfags.com

Jesus love me this I know becuase YOUR bible tell us so

get help

2990. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 19:01:55 UTC
From: dplatt@radagast.org
Message-ID: <1276n13d85ld919@corp.supernews.com>
Source record: 58932

In article <1148390757.341256.120320@i40g2000cwc.googlegroups.com>,
<w8ji@akorn.net> wrote:

>Maybe you should ask them why they want customers to do that. It sounds
>like witchcraft to me.

Well, I'd probably call it "lore", as in "Everybody says that it seems
to work better that way."

I don't think it has anything to do with the actual RF radiation
behavior of the dipole antenna, once a match is achieved... it
shouldn't matter for this purpose which side of the dipole is longer.
I think it has everything to do with the tuner's ability to find a
match.

As I understand it (and this is all second- and third-hand knowledge):
the SGC tuners (like the SEA tuners from which they're said to have
been copied and like a lot of similar tuners from Motorola and others)
were designed primarily to match short verticals (whips and wires)
working against a much larger ground system. They're designed for
unbalanced applicatios. Their original application was marine and
vehicle use, with the tuner very robustly "bonded" to the metal
chassis of the vehicle. The manuals still make it clear that a large,
well-bonded ground/counterpoise system connected directly to the tuner
chassis is what these tuners really "want to see". The acceptable-SWR
range for a dipole to be matched is rather limited... IIRC the SGC-230
manual says that it's limited to 5:1 or so.

When used to center-feed a dipole, making the ground-side leg longer
than the hot-side leg increases the capacitance to ground on that side
and may tend to mimic the environment for which the tuners were really
designed.

As to _why_ they want to see it - my guess is that it has to do with
the details of the tuner's internal circuitry (it's an L or PI tuner),
the tuning-setting search algorithm in the microprocessor, and perhaps
the electrical details of the SWR-and-impedance measuring/bridge
circuit.

The manual comments that if the counterpoise system isn't
significantly bigger than the radiator, the tuner's microcontroller
may "become confused" and try to feed power to the ground system
rather than to the radiator. Yes, I know, this doesn't really makes
sense electrically... I suspect that it really means that the
matching-component search algorithm starts making decisions which
actually drive the system further away from a good match rather than

towards it. It's also possible that such installations are more prone to high levels of RF current flow on the feedline from the transmitter, and also to high common-mode RF flow on the power and control lines, and that this RF might tend to confuse the tuner's SWR-and-impedance sensors and thus disrupt the match-search process.

My own experiences with an SGC tuner seem to confirm the limitations and warnings that SGC publishes about the hookup required to establish a match. A couple of years ago I picked up a first-generation SGC 230 (apparently never used, as it was still in the original shipping box and bag) at a hamfest for all of $30. I've tried it, and I _can_ get it to work, but in my installation it's finicky in the extreme about its ability to match a wire.

I've never had any success in getting it to match a dipole. It doesn't do well at all when trying to match a longwire (even one of what the manual says is an optimal length) when mounted on my house wall... I suspect that the 8' of wire between the tuner case, and the point at which I've bonded my counterpoise/radial/ground system, has too much inductance.

It also seems to be sensitive to which radio it's used with. It "likes" my old Ten-Tec Scout better than my new Kenwood TS-2000 - it'll achieve a match for the former that it won't achieve for the latter. I suspect that the problem is that the TS-2000's transmitter has SWR-sensitive power foldback - the TS-2000 keeps changing its transmit power as the SGC switches between different match-component settings, and I believe that this is completely confusing the SGC's search logic. Using the same tuner and antenna, on the same frequency, with the Ten-Tec (which doesn't use an SWR-sensing power reduction circuit), a match can often be achieved in a few seconds.

I've given up trying to use it for my home station, as I haven't been able to put together a reliable installation with it. I'll keep it around for field use - grounded to a vehicle or a big chain-link fence or something like that, it may work well enough.

My conclusion is that these L/Pi long-wire tuners are really best suited for the uses for which they were designed... matching a whip or wire, fed against a Big Yellow Taxi or some other large mass of sheetmetal or a really good radial system. For feeding a balanced antenna, I think you may have better results with a tuner which is explicitly designed for that sort of job.

Possibly SGC has improved the matching/searching behavior of their tuners/couplers when used in balanced-antenna applications, in the newer versions. The one I have is at least ten years old, I think - so old that it's in a non-weatherproof aluminum chassis rather than a weatherproof plastic one, and it doesn't have the "tune lock" feature of the newer ones. Dunno for sure.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

2991. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 19:11:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <s7Jcg.76076$_S7.60136@newssvr14.news.prodigy.com>
Source record: 58933

Roy Lewallen wrote:
> I'm sure that somewhere in one of your texts you can find the definition
> of linear as applied to networks. Once you do, though, a little thought
> is required to discover that y = mx + b doesn't satisfy the criteria for
> network linearity.

You have missed the point, Roy. It is the relationship between
functions that has to be linear. If f(x) is the input and y
is the output where y = h(x) = k*f(x), a plot of the output
Vs input will yield a straight line of the form mx + b.
--
73, Cecil http://www.qsl.net/w5dxp

2992. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 19:22:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <FhJcg.76087$_S7.40845@newssvr14.news.prodigy.com>
Source record: 58934

w8ji@akorn.net wrote:
> If a person is confused by or somehow DOESN'T understand what Terman is
> saying, he or she might take it to mean magnetic fields can travel
> unimpeded through a shield.

I have asked this simple question a number of times and, so
far, no one has answered. It should have a simple answer so
here it is again. Does a 60 Hz magnetic field travel virtually
unimpeded through a coax shield? This question involves 60 Hz
noise being coupled through coax.
--
73, Cecil http://www.qsl.net/w5dxp

2993. Built Mobile using Lewallen "fat dipole" concept

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 20:33:16 UTC
From: gene@csl.uiuc.edu
Message-ID: <e4vricjfp1@news.ks.uiuc.edu>
Source record: 58935

I built a Hi-performance 75 meter Mobile antenna based on Roy Lewallen's explanation of how a car body should ideally be used as the "fat" lower portion of a vertical dipole. Ideally, the mast should be placed at the top center of the car for good symmetry, but this is usually impractical for 75 meters in motion with a 13 ft height limit.
But on my 96 Dodge Ram truck, this idea was more practical. The truck box (mine was short bed) is separated from the cab in the upper area above the frame. To utilize the truck box as a "fat" vertical lower portion of a vertical dipole, I mounted an aluminum rail between the top edge of the box sides, so that the center of the alumimum rail becomes the highest electrical center of the box. The mast is mounted here (insulated) and becomes the feed point for the coax. But to prevent the "grounded" feed coax from compromising the "elevated" feed point, I coiled several turns of the feed coax (RG-58) thru a few large ferrite cores from my junk box. Presumeably, this minimizes any horizontal currents on the coax shield and thus minimizes ground losses. As Roy points out, horizontal currents near ground are readily coupled to ground and become losses.
The "theory" is that the horizontal currents leaving the top-center feed point are symmetrically equal and opposite (as in radial systems) and neutralize for minumum horizontal coupling-to-ground.
Conversely, all the vertical components going downward in any and all parts of the truck box are additive, in addition to the fact that vertical currents are much less coupled to ground, and less ground loss.
My apology if I am misrepresenting What I interpreted from Roy's comments. If so, perhaps he, or someone else will correct me.
Note that with this system, there is no reason, or need for any additional bonding, or ground straps, (unless you assume that the hinge and latches on the tail-gate are insufficient). I had an aluminum tool box mounted at the rear of the box, but it did not touch the sides, so assume it had little effect. (Now that I think about it, I probably should have strapped its top edge to the top of the truck box, for an extra current path).
My mast is concentric 1" each nearly 6' length. With loading coil and unique top hat, the mast is adustable for 13' legal limit traveling, or extended to 19' top height for extra performance while parked, or camping.
Hoping to capture some attention from the High-power, Big-antenna discussion groups, I first went all out with the 19' high camping version with an especially Hi-Q loading coil, and extended with 75' of RG-58 (small coax) into the ham shack so that I could use a 1Kw linear.
For the Hi-Q coil, I twisted two strands of #16 bare solid tinned copper wire (using an electric drill), and wound about 40 turns on a 4.5" diameter form with wax paper around it. I put a strip of clear RTV across the turns in two places. At a third place, I notched a piece of 3/4" PVC and supported each turn with RTV, with additional nylon strap at the first and last end turns, so it was essentially and air-wound dielectric between turns. The coil

length was about 9" for a 2:1 L/W ratio. I believe the inductance was about 80 microhenries.
The mast portion to the bottom of the coil (camping version) was about 10'-10" and the coil terminals were about 10" apart.
The "unique" capacitive-hat was cylinder-like, and resembles an upside down waste basket of 1/2" square grids of galvanized wire (i.e. 1/2" hardware cloth). #14 copper clad steel wire is tack soldered in several places to provide more rigidity, as well as minimizing corona losses. Dimensions are about 1' diameter and 14" deep. It is attached to the top of the coil by four struts about 12" long (#14 copper-clad steel) angling to the center at the top of the coil. Physically, the coil/tophat assembly is supported by a section of 3/4" PVC which goes from the top of the capacitive-hat (actually the bottom of the "upside-down waste basket), down to overlap the 1" mast, and is "grooved" and clamped with hose-clamps.
For adjusting the concentric masts, the lower one is cut about half way thru about 1/2" down an with a slit opening to allow a hose clamp to compress it to the upper mast for adjusting height.
Admittedly, the 13' road version is a little ugly for road travel unless you're strongly motivated. I used black nylon guy ropes (found at Menards and are about the size of flat shoe laces) which are not so noticeable and conveniently attach to the four "post holes" in the truck bed. The low wind resistance of the 1/2" mesh is low enough for high speed driving. But the Camping version should be quite acceptable for parked, or camping.

The final conclusion among a 75 meter discussion group who have years of almost nightly activity among members who use high power and and nearly optimum antenna systems, was that the performance was surprisingly similar to that of several of the members of the group, and exceeding some.
I only used it one nite with the 13' drive version before I moved the truck, but it also got surprisingly good results. Of course I realize that hams become jaded by the many claims they hear about antenna performance so they will factor that into this description also.

I forgot to mention that the "capacitive-match" method that I used across the feed-point required about 1200 picofarad. This is good news because we know that the actual radiation resistance is quite low (perhaps 2 to 5 ohms?), and any feed-point impedance above that represents loss. In the L-match equation, we know that the lower the feedpoint resistance, the higher shunt C is required ......i.e. the more C required, the better.

Final question for my info: (perhaps for Roy Lewallen).....
....if I model this on EZNEC with a 1" diameter dipole with radial systems attached at both ends (about 3' spokes), in Free Space with zero loss, and of course about 3.9 MHz, source at center, wouldn't the resistive portion represent the acutal radiation resistance?

2994. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 20:35:03 UTC
From: richardharrison@webtv.net
Message-ID: <24584-447371F7-1838@storefull-3256.bay.webtv.net>
Source record: 58936

Roy Lewallen, W7EL wrote:
"Am I mistaken, but is this not a clear statement that a copper or aluminum shield will block magnetic flux along with explanation of why it happens?"

Yes. And now the rest of the story which I`ve already posted several times.

At the bottom of page 38 in Terman`s 1955 edition;
"It is possible to shield slectrostatic flux WITHOUT simultaneously affecting the magnetic field by surrounding the space to be shielded with a conducting cage that is made in such a way as to provide NO low-resistance path for the flow of eddy currents, while at the same time offering a metallic terminal upon which electrostatic flux can terminate."

I invited readers to look at page 43 in the same book where:
"A grid of wires such as shown in the accompanying figure will provide electrostatic shielding WITHOUT magnetic shielding---."

I also said that similar grids (metal picket fences) were used in AM broadcast stations I`d worked in to eliminate capacitive coupling to the antennas which would otherwise favor harmonics of the broadcast frequency.

W8JI is yet desiring to drive a stake in the heart of the "myth" that E&H fields are separable if even for an instant. He is dead wrong.

The magnetic field alone does quite well in transferring all the wave`s energy through a special transformer which completely bars the electric field. Of course, current in the transformer`s secondary produces a voltage and the E-field is immediately restored.

This is not witchcraft. In free-space the electric field and the magnetic field are repeatedly exchanging all the energy back and forth. It keeps the wave going.

At a short or open on a transmission line energy is not lost. It is merely transferred for an instant into the surviving field.

Similarly, all the energy can be transferred through the electric field with zero magnetic coupling. Imagine two separately shielded coils. Now, use a coupling capacitor to transfer the energy from one coil to the other. Voila! E-field transfer with zero magnetic coupling. It`s no myth. It`s a fact.

Best regards, Richard Harrison, KB5WZI

2995. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 20:51:16 UTC
From: richardharrison@webtv.net
Message-ID: <24584-447375C4-1839@storefull-3256.bay.webtv.net>
Source record: 58939

Cecil, W5DXP wrote:
"Does a 60 Hz magnetic field travel virtually unimpeded through a coaxial shield?"

Surely many readers have toiled with shielded audio cables similar to coax and they know the answer is yes, if the shield is broken (this often happens at the ends of the cable).

Best regards, Richard Harrison, KB5WZI

2996. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 20:55:17 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <iet672tlpb1hmnlp8fk5cv5mfcelrdu1ct@4ax.com>
Source record: 58937

>When used to center-feed a dipole, making the ground-side leg longer
>than the hot-side leg increases the capacitance to ground on that side
>and may tend to mimic the environment for which the tuners were really
>designed.
>

It is probably because those tuners do not do well with a resonant
antenna. With one legg longer than the other there is more chance
that the antenna will be reactive and make the tuner happier.

73
Gary K4FMX

2997. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 21:01:58 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <aLKcg.7943$Ar6.7403@trnddc02>
Source record: 58938

Cecil Moore wrote:
> John - KD5YI wrote:
>
>> I thought there were two traveling waves, forward and reverse, with
>> the reverse wave being a reflection of the forward wave from the end
>> of the antenna. I thought that the total current was the sum of the
>> two waves, could be measured with an ammeter, and that it could be
>> referred to as the standing wave.
>
>
> If the antenna were lossless, that would be true. However, the
> antenna loses RF energy to radiation, ground, I^2*R, etc. Since
> the same thing is true of a transmission line, let's first look
> at a transmission line.
>
> Let's say we measure (at the tuner)
> a forward power of 100 watts and a reflected
> power of 80 watts. We can assume that the losses in the line
> and the power delivered to the load add up to 20 watts. The
> 20 watts can be associated with a pure forward traveling wave.
> The other 80 watts of the forward power and the 80 watts of
> reflected power can be associated with a pure standing wave.
> The equations for such would look something like this.
>
> Itot = Ifor*cos(kx+wt) + Iref*cos(kx-wt) =
>
> Itot = I1*cos(kx+wt) + I2*cos(kx)*cos(wt)
>
> I1 would be considered to be the part of the traveling wave that
> is delivering net power to the load. I2 would be considered to be
> the standing wave current delivering no net power to the load.
> It's just another way of mathematically partitioning the currents.
>
> Let's assume for the sake of discussion that the forward wave at
> the antenna feedpoint is 100 watts and the reflected wave at the
> antenna feedpoint is 80 watts. That means there are 20 watts of
> total losses. We can partition the currents in the same way that
> we did in the transmission line.
>
> Incidentally, if we assume the antenna is 1/2 wavelength with a
> Z0 of 600 ohms, we can calculate the feedpoint impedance just as
> if it were a piece of transmission line with a resistive termination.
> Anybody want to try that exercise? What impedance is seen looking
> into a 600 ohm 1/4WL open stub when the forward power is 100 watts

> and the reflected power is 80 watts?
>
>> Are you now saying that the standing wave and the reverse wave are the
>> same wave?
>
>
> The reverse wave is half of the standing wave. The other half of
> the standing wave is part of the forward wave. One might say that
> the energy in the reverse wave neutralizes the ability of the
> forward wave to deliver that same amount of energy to the load.
> And indeed, we know the power delivered to the load is the forward
> power minus the reflected power.

Never mind.

2998. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 21:15:02 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <niack3-jon.ln1@mail.specsol.com>
Source record: 58940

Gary Schafer <gaschafer@comcast.net> wrote:

> >When used to center-feed a dipole, making the ground-side leg longer
> >than the hot-side leg increases the capacitance to ground on that side
> >and may tend to mimic the environment for which the tuners were really
> >designed.
> >

> It is probably because those tuners do not do well with a resonant
> antenna. With one legg longer than the other there is more chance
> that the antenna will be reactive and make the tuner happier.

> 73
> Gary K4FMX

Maybe with dipoles, but my SGC has no problems with resonance on my
vertical.

FWIW, the vertical is resonant by itself on 40M and has a relay
switched loading coil for 80M I put in before I got the SGC.

With the loading coil out, the SGC has no problems 80M to 10M.

With the loading coil in, 160M to 20M.

Normal operation is loading coil in for 160M and 80M.

--
Jim Pennino

Remove .spam.sux to reply.

2999. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 21:16:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1276uslo9amil26@corp.supernews.com>
Source record: 58941

Richard Harrison wrote:
> Roy Lewallen, W7EL wrote:
> "Am I mistaken, but is this not a clear statement that a copper or
> aluminum shield will block magnetic flux along with explanation of why
> it happens?"
>
> Yes. And now the rest of the story which I`ve already posted several
> times.
>
> At the bottom of page 38 in Terman`s 1955 edition;
> "It is possible to shield slectrostatic flux WITHOUT simultaneously
> affecting the magnetic field by surrounding the space to be shielded
> with a conducting cage that is made in such a way as to provide NO
> low-resistance path for the flow of eddy currents, while at the same
> time offering a metallic terminal upon which electrostatic flux can
> terminate."
>
> I invited readers to look at page 43 in the same book where:
> "A grid of wires such as shown in the accompanying figure will provide
> electrostatic shielding WITHOUT magnetic shielding---."
>
> I also said that similar grids (metal picket fences) were used in AM
> broadcast stations I`d worked in to eliminate capacitive coupling to the
> antennas which would otherwise favor harmonics of the broadcast
> frequency.
>
> W8JI is yet desiring to drive a stake in the heart of the "myth" that
> E&H fields are separable if even for an instant. He is dead wrong.

Certainly the E or H field can disappear for part of a cycle. This happens routinely in a transmission line or in free space, as the energy is swapped back and forth between the two components. Tom has never said this is not so. And for whole cycles you can locally change the ratio of E/H, but you cannot separate them. Maxwell's equations show this. And if you do change the ratio of E/H, the normal free space ratio is restored within a small distance.

> The magnetic field alone does quite well in transferring all the wave`s
> energy through a special transformer which completely bars the electric
> field. Of course, current in the transformer`s secondary produces a
> voltage and the E-field is immediately restored.

Yes. And does this restored E field not occupy the space between the winding and the wire grid? If so, how can you tell that the grid has "stopped" the E field if it exists on both sides of the grid?

> This is not witchcraft. In free-space the electric field and the
> magnetic field are repeatedly exchanging all the energy back and forth.
> It keeps the wave going.

With this I totally agree. That explanation is related to why you can't
simply remove one component or the other.

> At a short or open on a transmission line energy is not lost. It is
> merely transferred for an instant into the surviving field.
>
> Similarly, all the energy can be transferred through the electric field
> with zero magnetic coupling. Imagine two separately shielded coils. Now,
> use a coupling capacitor to transfer the energy from one coil to the
> other. Voila! E-field transfer with zero magnetic coupling. It`s no
> myth. It`s a fact.

It's a myth that there's no magnetic field in the space between a
capacitor's plates.

Roy Lewallen, W7EL

3000. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 21:27:17 UTC
From: Highland Ham <abcgm0csz.kn6whxyz@dsl.pipex.com>
Message-ID: <iKednQqE672t4-7ZRVny3w@pipex.net>
Source record: 58942
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

> If you do like electronics projects for the sake of electronics
> projects, feedback control is an interesting way to go, though.
==========
Talking rotor position feedback ,instead of the traditional potmeter in bridge circuit with analogue meter readout ,you could try a low cost synchro system utilising 2 stepper motors from discarded hard drives , dot-matrix printers or flat bed scanners ,with 1 stepper motor mechanically coupled (either directly or via a reversed rotational reducer) to the rotor ,the other in the shack as a readout device. The circuit I found on the web (via Google)needs 5 wires between the stepper motor coupled to the rotor and the control unit ,located with the other stepper motor in the shack.
The circuit includes 4 TIP120 NPN transistors 2 LM324 dual Opamps and a few diodes and resistors. The stepper motor in the shack could either be provided with a rotating or sliding pointer (the latter from an old 1950-60s radio) , or be mechanically linked to a counter (for example from a discarded tape recorder)

A potential 'recycled components' project.

Frank GM0CSZ / KN6WH

3001. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 21:43:02 UTC
From: richardharrison@webtv.net
Message-ID: <21363-447381E6-27@storefull-3257.bay.webtv.net>
Source record: 58943

Roy, W7EL wrote:
"I`m sure that somewhere in one of your texts you can find the
definition of linear as applied to networks."

Right. From "The Penguin Desk Encyclopedia of Science and Mathematics":

"Linear (algebra) An equation or function of the form ax + by + c = 0
or f(x) = mx +b is called linear because its graph is a line. This has
been generalized to a concept called linear combination, which is the
sum of 2 or more entities with each multiplied by some number (with not
all numbers being 0). Linear combinations of vectors, equations, and
functions are commonly employed."

I think that definition is broad enough to cover the representations I
made in my postings.

Best regards, Richard Harrison, KB5WZI

3002. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 22:07:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12771t2jo3c5p2b@corp.supernews.com>
Source record: 58944

I can only hope that some of the readers understand.

Roy Lewallen, W7EL

Richard Harrison wrote:
> Roy, W7EL wrote:
> "I`m sure that somewhere in one of your texts you can find the
> definition of linear as applied to networks."
>
> Right. From "The Penguin Desk Encyclopedia of Science and Mathematics":
>
> "Linear (algebra) An equation or function of the form ax + by + c = 0
> or f(x) = mx +b is called linear because its graph is a line. This has
> been generalized to a concept called linear combination, which is the
> sum of 2 or more entities with each multiplied by some number (with not
> all numbers being 0). Linear combinations of vectors, equations, and
> functions are commonly employed."
>
> I think that definition is broad enough to cover the representations I
> made in my postings.
>
> Best regards, Richard Harrison, KB5WZI
>
>

3003. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 22:14:19 UTC
From: richardharrison@webtv.net
Message-ID: <21360-4473893B-1884@storefull-3257.bay.webtv.net>
Source record: 58946

Roy, W7EL wrote:
"It`s a myth that there`s no magnetic field in the space between a capacitor`s plates."

Maxwell`s great speculation was that "displacement current", as between a capacitor`s plates, produced magnetic flux as does conduction current. His speculation is now proved.

Best regards, Richard Harrison, KB5WZI

3004. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 22:19:23 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <LTLcg.34142$Lm5.8274@newssvr12.news.prodigy.com>
Source record: 58945

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "Does a 60 Hz magnetic field travel virtually unimpeded through a
> coaxial shield?"
>
> Surely many readers have toiled with shielded audio cables similar to
> coax and they know the answer is yes, if the shield is broken (this
> often happens at the ends of the cable).
>
> Best regards, Richard Harrison, KB5WZI
>

The skin depth of copper at 60 hertz is supposed to be 8.53mm. That's
too thick to make a practical shield. No wonder they're having problems.
73,
Tom Donaly, KA6RUH

3005. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 22:26:28 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <o_Lcg.32464$4L1.15912@newssvr11.news.prodigy.com>
Source record: 58947

Richard Harrison wrote:

> Roy, W7EL wrote:
> "I`m sure that somewhere in one of your texts you can find the
> definition of linear as applied to networks."
>
> Right. From "The Penguin Desk Encyclopedia of Science and Mathematics":
>
> "Linear (algebra) An equation or function of the form ax + by + c = 0
> or f(x) = mx +b is called linear because its graph is a line. This has
> been generalized to a concept called linear combination, which is the
> sum of 2 or more entities with each multiplied by some number (with not
> all numbers being 0). Linear combinations of vectors, equations, and
> functions are commonly employed."
>
> I think that definition is broad enough to cover the representations I
> made in my postings.
>
> Best regards, Richard Harrison, KB5WZI
>
>

You're right in a certain mathematical sense, but that definition
isn't correct, as Roy pointed out, in defining superposition.
73,
Tom Donaly, KA6RUH

3006. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 22:28:02 UTC
From: Dave <noone@nowhere.com>
Message-ID: <ZeSdncj4i5vqEe7Z4p2dnA@crocker.com>
Source record: 58948

OK, you guys can stop now... wx is improving and i found something more fun to play with anyway.... try this site out:

The links don't mail well, but if you go to this link...
http://local.live.com/?v=2&sp=aN.42.467105_-73.022505_k1ttt_

and then do this....

After the page above displays the road view, in the control pad at the top left click on 'bird's eye'... then wait for it to redraw. Then click on the 'W' on the compass rose to view toward the west which seems to be the closest view of my place. Then click on the big set of buildings in that control panel to zoom in. by this point you won't see the station at all, but in the 'scratch pad' control on the right side click on the 'k1ttt' link and it should swing it around and show you a view of my station looking toward the west. the photo is at least 3 to 4 years old now as you can see the 6 element 20m and 8 element 15m yagi's still up that have been replaced.

David Robbins K1TTT

web: http://www.k1ttt.net

AR-Cluster node: 145.69MHz or telnet://dxc.k1ttt.net

3007. Re: neat aerial photo site... was FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 22:31:00 UTC
From: Dave <noone@nowhere.com>
Message-ID: <V-adndTQJ6-6EO7ZnZ2dnUVZ_uudnZ2d@crocker.com>
Source record: 58949

> OK, you guys can stop now... wx is improving and i found something more
> fun to play with anyway.... try this site out:
>
> The links don't mail well, but if you go to this link...
> http://local.live.com/?v=2&sp=aN.42.467105_-73.022505_k1ttt_
>
> and then do this....
>
> After the page above displays the road view, in the control pad at the top
> left click on 'bird's eye'... then wait for it to redraw. Then click on
> the 'W' on the compass rose to view toward the west which seems to be the
> closest view of my place. Then click on the big set of buildings in that
> control panel to zoom in. by this point you won't see the station at all,
> but in the 'scratch pad' control on the right side click on the 'k1ttt'
> link and it should swing it around and show you a view of my station
> looking toward the west. the photo is at least 3 to 4 years old now as you
> can see the 6 element 20m and 8 element 15m yagi's still up that have been
> replaced.
>
> David Robbins K1TTT
>
> web: http://www.k1ttt.net
>
> AR-Cluster node: 145.69MHz or telnet://dxc.k1ttt.net
>

3008. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 22:31:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127739l4kf0e73a@corp.supernews.com>
Source record: 58950

Richard Harrison wrote:
> Roy, W7EL wrote:
> "It`s a myth that there`s no magnetic field in the space between a
> capacitor`s plates."
>
> Maxwell`s great speculation was that "displacement current", as between
> a capacitor`s plates, produced magnetic flux as does conduction current.
> His speculation is now proved.

Yes. So how does a capacitor between two inductors constitute "E-field transfer with zero magnetic coupling" as you stated?

Roy Lewallen, W7EL

3009. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 22:35:54 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <e7Mcg.32465$4L1.17267@newssvr11.news.prodigy.com>
Source record: 58951

Richard Harrison wrote:

> Roy Lewallen, W7EL wrote:
> "Am I mistaken, but is this not a clear statement that a copper or
> aluminum shield will block magnetic flux along with explanation of why
> it happens?"
>
> Yes. And now the rest of the story which I`ve already posted several
> times.
>
> At the bottom of page 38 in Terman`s 1955 edition;
> "It is possible to shield slectrostatic flux WITHOUT simultaneously
> affecting the magnetic field by surrounding the space to be shielded
> with a conducting cage that is made in such a way as to provide NO
> low-resistance path for the flow of eddy currents, while at the same
> time offering a metallic terminal upon which electrostatic flux can
> terminate."
>
> I invited readers to look at page 43 in the same book where:
> "A grid of wires such as shown in the accompanying figure will provide
> electrostatic shielding WITHOUT magnetic shielding---."
>
> I also said that similar grids (metal picket fences) were used in AM
> broadcast stations I`d worked in to eliminate capacitive coupling to the
> antennas which would otherwise favor harmonics of the broadcast
> frequency.
>
> W8JI is yet desiring to drive a stake in the heart of the "myth" that
> E&H fields are separable if even for an instant. He is dead wrong.
>
> The magnetic field alone does quite well in transferring all the wave`s
> energy through a special transformer which completely bars the electric
> field. Of course, current in the transformer`s secondary produces a
> voltage and the E-field is immediately restored.
>
> This is not witchcraft. In free-space the electric field and the
> magnetic field are repeatedly exchanging all the energy back and forth.
> It keeps the wave going.
>
> At a short or open on a transmission line energy is not lost. It is
> merely transferred for an instant into the surviving field.
>
> Similarly, all the energy can be transferred through the electric field
> with zero magnetic coupling. Imagine two separately shielded coils. Now,

> use a coupling capacitor to transfer the energy from one coil to the
> other. Voila! E-field transfer with zero magnetic coupling. It`s no
> myth. It`s a fact.
>
> Best regards, Richard Harrison, KB5WZI
>

When did you perform this experiment, Richard? (Perfectly shielding two coils and then coupling them with a capacitor.) And how did you manage to shield them if, as you seem to think, the magnetic fields are capable of penetrating the shield?
73,
Tom Donaly, KA6RUH

3010. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 22:59:50 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <12774tss6icpt17@corp.supernews.com>
Source record: 58952

Oh my goodness! The critical qualification and definition has been provided
by Roy.
Roy and Richard then proceeded to nail the subject to the proverbial wall.

It is time to pause in grading exams to remind that analytic geometry and
circuit theory are not the same thing. In circuit theory (and practice) a
circuit/network/or-whatever is linear if, and only if, superposition is
satisfied. If superposition is satisfied, then the circuit in question is
linear.

This concept also has utility in some mechanical structures.

In English, it is not uncommon for a word to have quite different meanings
depending on where it is used. We all know this. Even when discussing
active devices such as BJTs and FETs one finds the word "saturation" used
differently depending on the device.

Obviously, large enough signals applied to any network that appears to be
linear with smaller signals will melt same - letting out the smoke that was
placed therein at the factory. Obviously, there are degrees of linearity.
A footnote is always understood to say: such-and-such network is acceptably
linear for signals larger than A and smaller than B.

... thus ends the lesson.

73, Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Roy Lewallen" <w7el@eznec.com> wrote in message
news:12771t2jo3c5p2b@corp.supernews.com...
> I can only hope that some of the readers understand.
>
> Roy Lewallen, W7EL
>

3011. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 23:05:55 UTC
From: Slow Code <email@no.spam>
Message-ID: <nzMcg.6888$y4.5304@newsread2.news.pas.earthlink.net>
Source record: 58953
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

Jay <Jpegged@b4qrt.net> wrote:

> I put the ball to a metal grinder and I could easily see an outer F
> layer and then the E layer. I couldn't find a D layer, but it was dark
> outside and there's not supposed to be a D layer at night. Neat how
> antenna's can be manufactured to do that.
>
> Just passed my tech and General on Sunday so I'll be on the bands as
> soon as I find out my callsign and get an ionsphere for my antenna. I
> destroyed the old one on the grinder and I hear you need a good
> ionsphere to shoot good skip and hear far away stations.

So how'd you do on the CW portion of the test?

sc

3012. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 23:05:56 UTC
From: Slow Code <email@no.spam>
Message-ID: <ozMcg.6889$y4.2338@newsread2.news.pas.earthlink.net>
Source record: 58954
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc

Ponder This <BBDOBDOBAAPPzjjjj@hotmail.com> wrote in
news:ohm6725evd9edtv29nelqspiu7ihda94ve@4ax.com:

>
>
> Just cusrious...
>
> What happens if you pipe the output of one radio in to 2 different
> amplifiers, and then take the output of the two amps and send them to
> two identical vertical antennas spaced a half wave apart and with
> equal length feedlines from the amplifiers.
>
> Will the output of the two amplifiers add together in directions where
> the signal is in phase, or will it act like two different signals and
> interfere with each other?
>
> -Curious

Why would you do that? It's the same as just splitting a single output
from the radio. Depending on spacing and phase you can get of variety of
different radiation patterns. You don't need to split it between two
amps.

I split the output from my radio, lag one 90 degrees, put one in one yagi,
put one in another yagi and get circular polarization.

sc

3013. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 23:11:00 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <12775irg2ot70e9@corp.supernews.com>
Source record: 58955

Dear Richard:

I have had occasion to note to students that some of what they call music
would not be noticeably modified by being amplified by a amplifier having a
great deal of distortion.

Your point is right on target.

73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:d6e672thneibb62iidcfvp4lqi46jmed8v@4ax.com...
> On Tue, 23 May 2006 08:55:42 -0500, richardharrison@webtv.net (Richard
> Harrison) wrote:
>
> >f(x) = y = mx + b is called linear because its graph is a straight line.
>
> Hi Richard,
>
> Try listening to Mozart with a speaker driven with such a "linear"
> gain device. [Some things are so simple, they defy further analysis.]
>
> This, again, goes to the matter of a finely staged distortion trial
> with tone-deaf judges.
>
> 73's
> Richard Clark, KB7QHC

3014. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 23:19:38 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148426378.637869.316870@j55g2000cwa.googlegroups.com>
Source record: 58956
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

Slow Code wrote:
> Jay <Jpegged@b4qrt.net> wrote:
>

>
> So how'd you do on the CW portion of the test?
well enough he claims

whcih means you should be happy for him he passed the code test
>
> sc

3015. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 23:43:25 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fv6772du3eoj1g2onl6vidn5l3l5ijjuuq@4ax.com>
Source record: 58957

On Tue, 23 May 2006 19:11:00 -0400, "J. Mc Laughlin"
<jcm@power-net.net> wrote:

>Dear Richard:
>
>I have had occasion to note to students that some of what they call music
>would not be noticeably modified by being amplified by a amplifier having a
>great deal of distortion.
>
> Your point is right on target.

Hi Mac,

My point may have been on target, but the specifics left an escape for
those quick enough to pick up on it. In fact, I would speculate that
most audio (as do RF) amplifiers exhibit the gain characteristic of
f(x) = y = mx + b
and this is called class AB. When you build an amp employing two of
them in a push-pull configuration the constants b negate each other
and the 2mx remains.

Of course, the push-pull configuration is built to nullify the
distortion of this "linear" curve.

The single power supply Op Amp also suffers from
f(x) = y = mx + b
with the output floating at half the supply voltage - this has got to
be an application killer if it goes straight to the speakers without
removing the b with a capacitor.

73's
Richard Clark, KB7QHC

3016. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 23:52:31 UTC
From: Kevin & Natalia <sparc_man@hotmail.com>
Message-ID: <1148428168.920547@ftpsrv1>
Source record: 58958
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hi Tim,

My electronics skills are fairly good, I have built many projects over the time.
What I was wanting to do, is have a control box in the shack with a readout and left/right controls. And have the provision to also be able to have a PC control it.
I like the Pitch-prop motor, as it is strong, and can be controlled easy.

The way I control it at the moment, is via a 2 voltage system.
The pitch-prop runs at 36volts for full speed, and when I wish to slow it down for small movements, I use a second set of controls at 15volts. Not the best way of doing it, but it works.
I then look out the window and see where it is pointing. I know where N, E, S, W are on my section.

As to price on the parts, I would like to keep it down to around a couple of hundred dollars. :)

Regards and thanks for your input.

Kevin, ZL1KFM
www.qsl.net/zl1hk

"Tim Wescott" <tim@seemywebsite.com> wrote in message
news:hOmdnZarFMOuh-7ZnZ2dnUVZ_vqdnZ2d@web-ster.com...
>>
>>
> Excepting the readout, this should be a fairly routine motor control
> problem. Depending on what you want to do your control box could be as
> simple as a current-limited power supply and a couple of switches or as
> complex as a fully fed-back motion control system.
>
> How's your electronics skills, and how fancy do you want it to be?
>
> --
>
> Tim Wescott
> Wescott Design Services
> http://www.wescottdesign.com
>
> Posting from Google? See http://cfaj.freeshell.org/google/
>
> "Applied Control Theory for Embedded Systems" came out in April.
> See details at http://www.wescottdesign.com/actfes/actfes.html

3017. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-23 23:59:30 UTC
From: w8ji@akorn.net
Message-ID: <1148428770.229442.10210@i40g2000cwc.googlegroups.com>
Source record: 58959

n3ox.dan@gmail.com wrote:
> I expect there's not supposed to be any feedline between the antenna
> and the tuner in this installation, so I think that it probably is to
> moderate the impedance for a ham band antenna cut for the lowest band.

If I have a different length on the case of the tuner compared to the
length on the hot terminal, how does that moderate impedance?

It is the selction of length combinations of antennas and of course
length and impedance of feedline that has to be considered.

Since everything considered here so far hasn't been logical, it would
be interesting to find out what SGC actually intends.

73 Tom

3018. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 00:03:09 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97CCADA56E92Espectrumhogstarbandn@198.186.192.196>
Source record: 58960

>
> If I have a different length on the case of the tuner compared to the
> length on the hot terminal, how does that moderate impedance?

Assuming you're speaking of a resonant dipole or verticle, it would seem to me that by doing that you are moving the feedpoint away from the 50 ohm (70 ohm?) feedpoint at the center.... and probably towards a higher impedance feedpoint. Not sure what effect that would have on those autotuners, but perhaps they work better with a bit higher impedance than 50 ohms?

Ed K7AAT

3019. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 00:21:45 UTC
From: richardharrison@webtv.net
Message-ID: <12369-4473A719-2081@storefull-3253.bay.webtv.net>
Source record: 58963

Tom, KA6RUH wrote:
"You`re right in a certain mathematical sense, but that definition isn`t correct as Roy pointed out in defining superposition."

Or in conjugate matching for that matter. The discussion was: Is an antenna a linear device, meaning does it produce amplitude distortion?

Amplitude distortion comes from a nonlinear relation between imput and output. It has nothing to do with has the amplitude grown larger or smaller in the antenna? I think the majority of antennas have an output which is a reasonable approximation in form to their input. That goes for frequencies too. The response won`t be the same for all frequencies, but you`re not likely to find new frequencies on the output of the antenna that aren`t on its input.

Superposition says that when a number of voltages (distributed in any manner throughout a linear network) are applied to the network simultaneously, the current that flows is the sum of the component currents that would flow if the same currents had acted individually.

As Cecil said, nonlinearity produces new frequencies. Good antennas don`t do that, superposition or not.

Best regards, Richard Harrison, KB5WZI

3020. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 00:24:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <MINcg.35184$Lm5.19102@newssvr12.news.prodigy.com>
Source record: 58961

Roy Lewallen wrote:
> It's a myth that there's no magnetic field in the space between a
> capacitor's plates.

What quantum particles support that magnetic field?
--
73, Cecil http://www.qsl.net/w5dxp

3021. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 00:26:34 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <_KNcg.35204$Lm5.4326@newssvr12.news.prodigy.com>
Source record: 58962

Tom Donaly wrote:
> The skin depth of copper at 60 hertz is supposed to be 8.53mm. That's
> too thick to make a practical shield. No wonder they're having problems.

So 60 Hz magnetic fields penetrate shielded coax?
--
73, Cecil http://www.qsl.net/w5dxp

3022. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 00:50:47 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <ceKdnXgZqq59MO7Z4p2dnA@web-ster.com>
Source record: 58964
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

n3ox.dan@gmail.com wrote:

> Richard,
> Agreed on the suitability of an analog solution... I certainly made
> some steps toward critically damped operation. My circuit design was
> bad, though.
>
> I didn't have a very analyzable problem; the rotator rotates one of
> those fiberglass surplus military masts with respect to another, so I
> get a lot of stick-slip, especially if there's a breeze (there are 12
> feet of mast above this thing).
>
> This is not to say a suitable set of P, I and D couldn't be found, and
> it would have been pretty slick if I'd set up right for empirical loop
> tuning, but I hadn't done that. I got pretty close by soldering
> components in and out.
>
> I would have had a better time with a real multiple op amp circuit with
> a knob for each of P, I and D.
>
> I think you hit the nail on the head regarding too heavily dampened
> with too much gain in the antenna rotator case. I just couldn't really
> tune the thing.
>
>
> In my case, I just decided to throw up my hands and go to the simplest
> method so I could get on the air with a rotating antenna. I have a
> quite successful analog servo going every day with my remote antenna
> tuner (www.n3ox.net/projects/servo). That one is ever-so-slightly
> underdamped, proportional only, and works nicely. There's a little bit
> of hysteresis and it certainly could be improved, but I stopped at the
> good-enough-for-daily-operation level.
>
> I guess what I meant by "going digital" was that depending on whether
> you're more comfortable with programming than a soldering iron (not
> me!) you might think about having a simple motor drive circuit and
> implement the admittedly complex PID loop in software/firmware.
>
> You're absolutely right that you can't do this if you don't know how to
> do the analog...
>
> 73,
> Dan

> N3OX
>
Written with the implicit assumption that you'd want to do it in
software, but quite applicable to analog solutions:
http://www.wescottdesign.com/articles/Friction/friction.html

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

Posting from Google? See http://cfaj.freeshell.org/google/

"Applied Control Theory for Embedded Systems" came out in April.
See details at http://www.wescottdesign.com/actfes/actfes.html

3023. Re: Control Unit for Home Built Rotator from Pitch-Prop Motor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 00:55:17 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <wvCdnU0znYNsM-7ZnZ2dnUVZ_vednZ2d@web-ster.com>
Source record: 58965
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.homebrew,rec.radio.amateur.misc

Hey Kevin:

http://www.wescottdesign.com/articles/pidwophd.html
http://www.wescottdesign.com/articles/Friction/friction.html

If you want to control it from a PC I'd suggest that you drive an H bridge from a microprocessor, with a PID controller in there to make it go. The biggest key to making a PID loop without doing a bunch of math is to keep your ambition under control -- if you have to go fast, then you need to delve into theory.

As pointed out, PID control can be tricky -- even though I'm a control systems professional there's a good chance that if I did it rev 1.0 would just use the micro to implement virtual buttons, with feedback control for rev 1.1. You definitely want to make sure all the pieces are working before you close the loop.

Kevin & Natalia wrote:

> Hi Tim,
>
> My electronics skills are fairly good, I have built many projects over the
> time.
> What I was wanting to do, is have a control box in the shack with a readout
> and left/right controls. And have the provision to also be able to have a PC
> control it.
> I like the Pitch-prop motor, as it is strong, and can be controlled easy.
>
> The way I control it at the moment, is via a 2 voltage system.
> The pitch-prop runs at 36volts for full speed, and when I wish to slow it
> down for small movements, I use a second set of controls at 15volts. Not the
> best way of doing it, but it works.
> I then look out the window and see where it is pointing. I know where N, E,
> S, W are on my section.
>
> As to price on the parts, I would like to keep it down to around a couple of
> hundred dollars. :)
>
> Regards and thanks for your input.
>
> Kevin, ZL1KFM
> www.qsl.net/zl1hk
>
> "Tim Wescott" <tim@seemywebsite.com> wrote in message
> news:hOmdnZarFMOuh-7ZnZ2dnUVZ_vqdnZ2d@web-ster.com...

>
>>>
>>Excepting the readout, this should be a fairly routine motor control
>>problem. Depending on what you want to do your control box could be as
>>simple as a current-limited power supply and a couple of switches or as
>>complex as a fully fed-back motion control system.
>>
>>How's your electronics skills, and how fancy do you want it to be?
>>
>>--
>>
>>Tim Wescott
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>
>

--

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Posting from Google? See http://cfaj.freeshell.org/google/

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See details at http://www.wescottdesign.com/actfes/actfes.html

3024. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 01:11:29 UTC
From: Eric Fairbank <fairbank56@yahoo.com>
Message-ID: <mpSdnbMomaZeL-7ZRVn-uQ@comcast.com>
Source record: 58966

Icom needs to modernize their thinking and get rid of their "old school" installation guides. Wire radials are the way to go on your sailboat. Not copper foil or wide copper strips, just plain old 14 gauge wire radials. I suggest you read some of the threads about this on the Maritime Mobile Ham Forum from people with real world experience with marine HF installations. You'll find the answers to your questions there:

http://cruisenews.net/cgi-bin/mmham/webbbs_config.pl

Eric

"Will" <bluehyhena@hotmail.com> wrote in message
news:447311d0_1@news.iprimus.com.au...
>I want to set up a hf antenna for my sailboat.
>
> I have read various guides from Icom etc.
>
> They suggest running copper foil to a Dynaplate and use sea water as the
> ground. How can this work when the Dynaplate is below sea water?
>
> Is sea water equal to copper wire radials as a RF ground system?
>
> Does sea water make a good enough ground without radials?
>
> How can a piece of copper metal about 1 ft square equal several radials
> laying on the boats deck?
>
> Why do i have to use copper foil when most other people suggest using
> ordinary copper wire?
>
> Over seawater what would be the best number of radials to use considering
> that maximum length i can run is 40 ft. I am planning to use a backstay
> antenna with a SGC 230 Tuner.
>
> All ideas and comments appreciated.
>
> Will

3025. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 01:31:57 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <idd772h3gr5pe2v8qrqsim1jp92r6c6nls@4ax.com>
Source record: 58968

On Tue, 23 May 2006 19:21:45 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>As Cecil said, nonlinearity produces new frequencies. Good antennas >don`t do that, superposition or not.

Hi Richard,

Appeals of authority that are pegged to Cecil are like trying to tread water with a concrete life preserver. Your logic is blighted by a forced conclusion that has nothing to do with the obvious observation that antennas, as transmission lines, are quite evidently non-linear in their characteristic Z. This has been demonstrated and is historic from sources that even Terman's accepts.

Saying that this non-linearity must then reveal (of all things) an amplitude distortion is specious. Demanding that "new frequencies" must exist AND then saying they must be of such-and-such a magnitude to so qualify is a hoot.

This is old ground and has not been answered by you or Cecil. Saying 't'ain't so is not debate.

73's
Richard Clark, KB7QHC

3026. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 01:33:37 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <j7d772li0iacsa8d16qspnnd6thoub2863@4ax.com>
Source record: 58967

On Mon, 22 May 2006 23:19:25 GMT, ml <m@di.net> wrote:

>hi
>
>I was wondering a few things i read about in my sgc tuner manual about
>dipoles
>
>
>a) they say or sorta recomend that if your making a simple horiz ctr fed
>dipole, it's 'best' to have one leg longer

This might be related to the sometimes heard myth / nonsense that a half wave dipole does not need a 1:1 balun at the feedpoint, but that one leg should be made a little longer than the formula length to compensate for the feedline common mode current.

I don't know the source of this concept, but I hear it from time to time from avid readers, usually introduced with "of course, as everyone knows..." .

Owen
--

3027. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 01:34:09 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <lKOcg.7992$Ar6.7849@trnddc02>
Source record: 58969

Hi Cecil

I'll top post to your question and the other repliers.

I have *NO* thoughts of money transfer. This is not an invention. I merely assembled a set of four dipoles so they'd produce a pattern thats sensitive to RHCP thruout the entire hemisphere. I'd probably even pay to get someone to try building and testing one of these Cross antennas. I just dont know what it is good for except receiving signals from NOAA weather satellites.

The Double Cross does look alot like a Lindenblad. But, the dipoles are tilted more sharply toward vertical.

Cecil, you ask about how this antenna differs from a turnstile. The four dipole Double Cross has a pattern that has a much greater sensitivity to RHCP toward the horizon than the turnstile. it even has sensivity to RHCP at the horizon whereas the Turnstile is linear.

The fundamental concept (Cross concept) is two dipoles crossed at 90 degrees, both tilted from vertical, spaced about 90 degrees and fed in phase. That produces circular polarization toward the horizon in two opposite directions.
The Double Cross, which looks a little like the Lindenblad, is two Cross antennas mounted together. One Cross is fed 90 degrees later than the other.

I have been trying to develop this concept for more than a year and have stumbled on a configuration that really works for receiving NOAA polar orbiting satellite signals.
The GEO community has rejected the double Cross as its being "not perfect". I dont know anyone else who'd have interest in an antenna thats really easy to make and will work even when built somewhat differently from some exact model.

A guy in England has been publishing all the NOAA satellite images I record here in Los Alamitos. The images can be seen at http://www.sattraxuk.com/imagestothewestaptdecoder/daily/index.html

The images on this site begin and end at zero degree elevation of the satellite, independent of the received signal strength. So, the viewer can be assured that the images from this Double Cross are a good indication of the sensitivity of the antenna and the amount of pattern nilling.

I have some text written to try to describe the concept. It is really difficult for me to know if that text is understandable. Nobody has ever asked me to clarify any of it. That is - I get no feedback. I just cant

find anyone interested in my project. Oh, I have located one guy who
thinks the Double Cross has merit. He is Patrik Tast, and lives in Finland.

So, if anyone has interest, or knows of anyone who'd like more info on the
Double Cross concept, I'd sure like to share this with them.

Thanks for the interest
Jerry
j.jmartes@verizon.net KD6JDJ 33.8 N 118.0 W

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:ywFcg.76009$_S7.28525@newssvr14.news.prodigy.com...
> Jerry Martes wrote:
>> I have determined a way to feed four dipoles to provide good horizon to
>> horizon coverage at all angles for circularly polarized signals.
>
> Hi Jerry, how is your antenna superior to a two-dipole turnstile?
> --
> 73, Cecil http://www.qsl.net/w5dxp

3028. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 01:35:37 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <1277e20re0d5kbe@corp.supernews.com>
Source record: 58970

Dear Richard:

Last week's lab job in both Electronics I and II (at different levels)
explored just this issue.
How great it is to have really good scopes and a spectrum analyzer in a
student tab.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:fv6772du3eoj1g2onl6vidn5l3l5ijjuuq@4ax.com...
> On Tue, 23 May 2006 19:11:00 -0400, "J. Mc Laughlin"
> <jcm@power-net.net> wrote:
>
> >Dear Richard:
> >
> >I have had occasion to note to students that some of what they call music
> >would not be noticeably modified by being amplified by a amplifier having
a
> >great deal of distortion.
> >
> > Your point is right on target.
>
> Hi Mac,
>
> My point may have been on target, but the specifics left an escape for
> those quick enough to pick up on it. In fact, I would speculate that
> most audio (as do RF) amplifiers exhibit the gain characteristic of
> f(x) = y = mx + b
> and this is called class AB. When you build an amp employing two of
> them in a push-pull configuration the constants b negate each other
> and the 2mx remains.
>
> Of course, the push-pull configuration is built to nullify the
> distortion of this "linear" curve.
>
> The single power supply Op Amp also suffers from
> f(x) = y = mx + b
> with the output floating at half the supply voltage - this has got to
> be an application killer if it goes straight to the speakers without
> removing the b with a capacitor.
>

> 73's
> Richard Clark, KB7QHC

3029. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 01:59:52 UTC
From: Michael Tope <W4EF@comcast.net>
Message-ID: <GOydnSLvtrpHIu7ZnZ2dnUVZ_s6dnZ2d@comcast.com>
Source record: 58971

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:_KNcg.35204$Lm5.4326@newssvr12.news.prodigy.com...
> Tom Donaly wrote:
>> The skin depth of copper at 60 hertz is supposed to be 8.53mm. That's
>> too thick to make a practical shield. No wonder they're having problems.
>
> So 60 Hz magnetic fields penetrate shielded coax?
> --
> 73, Cecil http://www.qsl.net/w5dxp

Cecil, if ever I had the feeling that I was about to answer a loaded
question, this is it, but here goes anyway - "Yes, I believe a 60 Hz
magnetic field impinging on a piece of shielded coax would penetrate
the shield of that coax significantly if the shield were made of a
non-ferrous conductor."

73, Mike W4EF.....

3030. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 02:13:44 UTC
From: John Barnard <jfjb@shaw.ca>
Message-ID: <sjPcg.184157$P01.29713@pd7tw3no>
Source record: 58972

clifto wrote:
> Ed wrote:
>
>> Jay <Jpegged@b4qrt.net> wrote in
>> news:jOrcg.651$Sf2.175@newsread1.news.pas.earthlink.net:
>>
>>
>>> I put the ball to a metal grinder and I could easily see an outer F
>>> layer and then the E layer. I couldn't find a D layer, but it was
>>> dark outside and there's not supposed to be a D layer at night. Neat
>>> how antenna's can be manufactured to do that.
>>>
>>> Just passed my tech and General on Sunday so I'll be on the bands as
>>> soon as I find out my callsign and get an ionsphere for my antenna. I
>>> destroyed the old one on the grinder and I hear you need a good
>>> ionsphere to shoot good skip and hear far away stations. Reception has
>>> been really shitty lately without the ionsphere. I looked through the
>>> last 4 issues of QST and I couldn't find anyone selling ionsphere's.
>>> Where can I get one, or do I have to buy a whole new antenna?
>>>
>>>
>> You don't need a new one. The old one probably got stuck in your coax
>> by back-feed when you were grinding. Just get an RF brush and give your
>> coax a few swipes and the ionosphere should pop right back out!
>>
>
> Don't forget the electron grease.
>
>
Was that the stuff that replaced the etheric oil?

JB

3031. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 02:30:02 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <KyPcg.32743$4L1.26036@newssvr11.news.prodigy.com>
Source record: 58973
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc

Depends--, if in phase, Both INPUT, and OUTPUT,
would add (double power, if SAME power on both,
Also would add, if 180 degrees OUT of Phase, both
Input, and Output. And this would be the same as
with Push-Pull amp (both input, and output). but
if In Phase, on input, and OUT of Phase, on
Output,or vice versa, theoretically, would result
in 0 Output. And, if in different phases, probably
would make a great interference source!!!
(distortion, intermods, harmonics, oddball mixes,
ect!) Jim NN7K

Slow Code wrote:
> Ponder This <BBDOBDOBAAPPzjjjj@hotmail.com> wrote in
> news:ohm6725evd9edtv29nelqspiu7ihda94ve@4ax.com:
>
>
>>
>> Just cusrious...
>>
>>What happens if you pipe the output of one radio in to 2 different
>>amplifiers, and then take the output of the two amps and send them to
>>two identical vertical antennas spaced a half wave apart and with
>>equal length feedlines from the amplifiers.
>>
>>Will the output of the two amplifiers add together in directions where
>>the signal is in phase, or will it act like two different signals and
>>interfere with each other?
>>
>>-Curious
>

3032. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 02:35:55 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <c5h772p3uk0acp93im8gbftrv1vqbtog89@4ax.com>
Source record: 58974

You mean the "Maritime" mis information forum? Looks like some real
world BS artists on there.

Would you make those radials on the boat resonant or not?
If resonant, how would you know?

How much more inductance would a ground wire have than copper foil.

73
Gary K4FMX

On Tue, 23 May 2006 21:11:29 -0400, "Eric Fairbank"
<fairbank56@yahoo.com> wrote:

>
> Icom needs to modernize their thinking and get rid of their "old school"
>installation guides. Wire radials are the way to go on your sailboat. Not
>copper foil or wide copper strips, just plain old 14 gauge wire radials. I
>suggest you read some of the threads about this on the Maritime Mobile Ham
>Forum from people with real world experience with marine HF installations.
>You'll find the answers to your questions there:
>
>http://cruisenews.net/cgi-bin/mmham/webbbs_config.pl
>
>Eric
>
>"Will" <bluehyhena@hotmail.com> wrote in message
>news:447311d0_1@news.iprimus.com.au...
>>I want to set up a hf antenna for my sailboat.
>>
>> I have read various guides from Icom etc.
>>
>> They suggest running copper foil to a Dynaplate and use sea water as the
>> ground. How can this work when the Dynaplate is below sea water?
>>
>> Is sea water equal to copper wire radials as a RF ground system?
>>
>> Does sea water make a good enough ground without radials?
>>
>> How can a piece of copper metal about 1 ft square equal several radials
>> laying on the boats deck?
>>
>> Why do i have to use copper foil when most other people suggest using
>> ordinary copper wire?
>>
>> Over seawater what would be the best number of radials to use considering

>> that maximum length i can run is 40 ft. I am planning to use a backstay
>> antenna with a SGC 230 Tuner.
>>
>> All ideas and comments appreciated.
>>
>> Will
>

3033. Re: Hamvention: Amateur Radio Manufacturers and Unfair Pricing...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 03:06:46 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <t5mdnd6PA5JfUO7ZRVn-ig@vnet-inc.com>
Source record: 58975
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.misc,rec.radio.amateur.swap

Get a grip dude, that is the way sales work, it starts at a certain time and ends at a certain. That time may not be on the schedule you like, oh well, that is what being the guy setting up the sale is all about. Don't like it, make your own product, market it, set up a sale and then let folks who want the special price a day or two later have it, it will be your business and you can run it any way you like.

Jeeze, I hate whiners!!!!

3034. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 03:10:58 UTC
From: Topaz305RK <k7sam@arrl.net>
Message-ID: <38ydnRRDk8ohU-7ZnZ2dnUVZ_t6dnZ2d@vnet-inc.com>
Source record: 58876
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

1 2 3 4 5 6 7 8 9 10

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/

/

/

TROLL-O-METER

3035. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 03:15:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sdQcg.14090$fb2.5994@newssvr27.news.prodigy.net>
Source record: 58877

Richard Clark wrote:
> Appeals of authority that are pegged to Cecil are like trying to tread
> water with a concrete life preserver. Your logic is blighted by a
> forced conclusion that has nothing to do with the obvious observation
> that antennas, as transmission lines, are quite evidently non-linear
> in their characteristic Z. This has been demonstrated and is historic
> from sources that even Terman's accepts.

There exist transmission lines with a changing Z0 along their
lengths. Those transmission lines are linear systems.
--
73, Cecil http://www.qsl.net/w5dxp

3036. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 03:20:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0iQcg.14095$fb2.5115@newssvr27.news.prodigy.net>
Source record: 58878

Michael Tope wrote:

> "Cecil Moore" <mycall@hotmail.com> wrote:
>>So 60 Hz magnetic fields penetrate shielded coax?
>
> Cecil, if ever I had the feeling that I was about to answer a loaded
> question, this is it, but here goes anyway - "Yes, I believe a 60 Hz
> magnetic field impinging on a piece of shielded coax would penetrate
> the shield of that coax significantly if the shield were made of a
> non-ferrous conductor."

It's not a loaded question. I just always assumed that coax
would shield the system from 60 Hz noise and I guess I was
wrong.
--
73, Cecil http://www.qsl.net/w5dxp

3037. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 03:34:30 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <HvQcg.508$ro4.326@fe10.lga>
Source record: 58879

"Richard Harrison" <richardharrison@webtv.net> wrote
>
> Similarly, all the energy can be transferred through the electric field
> with zero magnetic coupling. Imagine two separately shielded coils. Now,
> use a coupling capacitor to transfer the energy from one coil to the
> other. Voila! E-field transfer with zero magnetic coupling. It`s no
> myth. It`s a fact.
>
> Best regards, Richard Harrison, KB5WZI
>

I wonder how the gurus 'splain the different behavior of vertical vs. horizontally polarized antennas, where E field determines the way signals reflect and form the pattern. If E and H fields are so "inseparable" there should be no difference, right?

They are ignoring behavior of E and H fields within the near field of antennas and workings of the shield.

Another example of shield's performance was when I had small shielded loop next to the Beverage. The combination gave better S/N performance and better signal levels than each of them alone. Again, shield performing shielding function in the vicinity of near field of both antennas. Loops were tunable and performing as an antenna, shield was shielding from the near by interference and providing symmetry. FACTS - verifiable not subject to wild speculations about current crawling around the edge to inside of tubing, or antenna inside of electrostatic shield quitting to work as antenna because of "W8JI shield is antenna teachings".

--
Yuri Blanarovich, K3BU, VE3BMV

3038. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 04:01:52 UTC
From: richardharrison@webtv.net
Message-ID: <23821-4473DAB0-118@storefull-3252.bay.webtv.net>
Source record: 58881

Richard Clark wrote:
"Demanding that "new frequencies" must exist AND then saying that they must be of such-and-such a magnitude to qualify is a hoot."

Glad you got a kick out of that. It is not original.

In analog microwave systems, often an baseband intermod monitor is used to alarm the operator that nonlinearity has arrived in his system. New frequencies have appeared and have reached a preset arbitrary amplitude sufficient to trigger an alarm. Nothing is perfect so there will always be some intermod. This requires setting a level of these intermod products which will trigger the alarm. This is a standard procedure.

Best regards, Richard Harrison, KB5WZI

3039. Re: HF broadcasting antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 04:11:16 UTC
From: m II <none@telus.net>
Message-ID: <E1Rcg.46874$fV1.14845@edtnps82>
Source record: 58880
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

clifto wrote:

> I knee-jerk associated .hr with Hungary. Oops. Guess my Domainian is as
> bad as my Hungarian.

The Ace is Vulgarian...and he speaks it fluently.

mike

3040. Re: HF broadcasting antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 04:18:28 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148444308.925989.172770@u72g2000cwu.googlegroups.com>
Source record: 58882
Cross-posted to: rec.radio.amateur.antenna,rec.radio.shortwave

```
m II wrote:
> clifto wrote:
>
> > I knee-jerk associated .hr with Hungary. Oops. Guess my Domainian is as
> > bad as my Hungarian.
>
>
>
> The Ace is Vulgarian...and he speaks it fluently.

wel said indeed
>
>
>
>
> mike
```

3041. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 04:37:25 UTC
From: Michael Tope <W4EF@comcast.net>
Message-ID: <TZGdnfb5wZmNfu7Z4p2dnA@comcast.com>
Source record: 58883

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:0iQcg.14095$fb2.5115@newssvr27.news.prodigy.net...
> Michael Tope wrote:
>
>> "Cecil Moore" <mycall@hotmail.com> wrote:
>>>So 60 Hz magnetic fields penetrate shielded coax?
>>
>> Cecil, if ever I had the feeling that I was about to answer a loaded
>> question, this is it, but here goes anyway - "Yes, I believe a 60 Hz
>> magnetic field impinging on a piece of shielded coax would penetrate
>> the shield of that coax significantly if the shield were made of a
>> non-ferrous conductor."
>
> It's not a loaded question. I just always assumed that coax
> would shield the system from 60 Hz noise and I guess I was
> wrong.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Cecil,

Here's a link to an interesting post on TowerTalk by Jim K9YC
discussing the subject of shielding effectiveness of coax at very low
frequencies:

http://lists.contesting.com/_towertalk/2005-07/msg00663.html

73, Mike, W4EF.....

3042. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 05:13:52 UTC
From: Buck <not@this.time>
Message-ID: <8kq772pcq2lkiqval3aj7qs1ki102ccep1@4ax.com>
Source record: 58884
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc

>> What happens if you pipe the output of one radio in to 2 different
>> amplifiers, and then take the output of the two amps and send them to
>> two identical vertical antennas spaced a half wave apart and with
>> equal length feedlines from the amplifiers.
>>
>> Will the output of the two amplifiers add together in directions where
>> the signal is in phase, or will it act like two different signals and
>> interfere with each other?
>>
>> -Curious

I would assume the following: If you use a splitter with an equal length of coax to the two amps, you would be able to get 100 watts out from the radio to be 50 watts into each amp. I would suspect that you would have double the power out to the antenna assuming you used the same length of coax from the amps to the antenna.

Of course, you have to deal with impedance problems with the splitting of the coax, for example, two 50 ohm cables would result in 25 ohms to the amps. Not good. then the two 50 ohm outputs from the amps would result in 100 ohms to the antenna, not good again....

--
73 for now
Buck
N4PGW

3043. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 05:44:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rcs7729krfddr1hi1sro6pa2bt6bqoq3v8@4ax.com>
Source record: 58886

On Tue, 23 May 2006 23:01:52 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Clark wrote:
>"Demanding that "new frequencies" must exist AND then saying that they
>must be of such-and-such a magnitude to qualify is a hoot."
>
>Glad you got a kick out of that. It is not original.
>

Hi Richard,

All that was missing from your response was the chuckle, and the number at which distortion begins.

How is it if you are not laughing, that neither are you illuminating to this specific point that is presumable a serious issue? Such a shortfall doesn't inspire much confidence in your logic, which perhaps sank with that concrete life jacket.

C'mon, is 10% distortion to be mandated as linear, and 11% distortion non-linear? Need we push this to Cecil's Limit of perception - ï¿½59%?

Choose your own numbers, or find a true authority to quote a quantitative response.

73's
Richard Clark, KB7QHC

3044. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 05:46:42 UTC
From: "Dr. Honeydew" <dr_b_honeydew@msn.com>
Message-ID: <1148449602.590620.183900@g10g2000cwb.googlegroups.com>
Source record: 58885

Were you interested in a field coaxial to the axis of the line, or one
that is transverse? Perhaps I could get my assistant, Beaker, to run
some tests for us. He sometimes get a little, ah, involved with his
experiments, though, so it may take some time.

Regards,
Bunsen

Cecil Moore wrote:
> Michael Tope wrote:
>
> > "Cecil Moore" <mycall@hotmail.com> wrote:
> >>So 60 Hz magnetic fields penetrate shielded coax?
> >
> > Cecil, if ever I had the feeling that I was about to answer a loaded
> > question, this is it, but here goes anyway - "Yes, I believe a 60 Hz
> > magnetic field impinging on a piece of shielded coax would penetrate
> > the shield of that coax significantly if the shield were made of a
> > non-ferrous conductor."
>
> It's not a loaded question. I just always assumed that coax
> would shield the system from 60 Hz noise and I guess I was
> wrong.
> --
> 73, Cecil http://www.qsl.net/w5dxp

3045. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 06:58:38 UTC
From: BKR <REMOVESPAMrchvid7@lycos.comFilter>
Message-ID: <44740422@nntp.zianet.com>
Source record: 58887

n3ox.dan@gmail.com wrote:
> Is it something like the Lindenblad?
>
> http://www.phys.unsw.edu.au/~map/weather/notes/buildyourown/lindenblad.html
>
> I'm always interested in an antenna design. Making some drawings or
> taking some photos (or both) and putting them up on a website with some
> measurements is a fine way to publish your construction.
>
> If you are trying to make some money, I can help for some percentage to
> be decided :-)
>
> Seriously, though, everyone would be interested in the concept. Put it
> up on a webpage, even if just a couple of photos. I think QSL.net and
> some other sites will give you hosting.
>
> 73,
> Dan
> N3OX
> www.n3ox.net
>

I believe this idea has already been done and used at major airports for
VHF communication. The ones I have seen have 4 dipoles on stalks, and
each is 45 degrees from horizontal. They are used for aircraft in closs
proximity to the field where polarization is unpredictable as craft
enter, leave, and cross over the strip.

3046. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 08:08:21 UTC
From: Jon Kåre Hellan <dev@null.com>
Message-ID: <1m4pzfsv4a.fsf@persaunet.uninett.no>
Source record: 58888

Will <bluehyhena@hotmail.com> writes:

> I want to set up a hf antenna for my sailboat.
>
> I have read various guides from Icom etc.
>
> They suggest running copper foil to a Dynaplate and use sea water as
> the ground. How can this work when the Dynaplate is below sea water?
>
> Is sea water equal to copper wire radials as a RF ground system?
>
> Does sea water make a good enough ground without radials?
>
> How can a piece of copper metal about 1 ft square equal several
> radials laying on the boats deck?
>
> Why do i have to use copper foil when most other people suggest using
> ordinary copper wire?
>
> Over seawater what would be the best number of radials to use
> considering that maximum length i can run is 40 ft. I am planning to
> use a backstay antenna with a SGC 230 Tuner.
>
> All ideas and comments appreciated.

Well, I don't have personal experience with this. There is a chapter in the ARRL antenna book, and it basically agrees with ICOM. As to radials - two comments. First - how do you make sure that they don't get in the way. And that RF currents won't be a hazard to people. Second - there are plenty of wires on a yacht. How do the wires know whether or not they are supposed to act as radials?

If there is a better alternative to the traditional backstay using seawater as ground, it might be the vertical dipole. Feeding would be tricky, but for single band operation, you could probably feed it like a J-Pole. I don't see how to make a multiband variant. And you get the high voltage points close to the deck, which doesn't sound like a good idea in a damp and salty environment.

There are also people who hoist a horizontal dipole when needed. OK for recreational radio, not if you need to be able to communicate in rough weather.

Of course, square riggers are beautiful, and you could use the yard-arms as a stacked yagi.

73
LA4RT Jon

3047. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 08:15:03 UTC
From: Jon Kåre Hellan <dev@null.com>
Message-ID: <1mzmh7rg8o.fsf@persaunet.uninett.no>
Source record: 58889

w8ji@akorn.net writes:

> n3ox.dan@gmail.com wrote:
> > I expect there's not supposed to be any feedline between the antenna
> > and the tuner in this installation, so I think that it probably is to
> > moderate the impedance for a ham band antenna cut for the lowest band.
>
> If I have a different length on the case of the tuner compared to the
> length on the hot terminal, how does that moderate impedance?

May be they want the impedance on the second harmonic to be less
exciting.

If there is a length of lossy feedline between my resonant 80 m
antenna and the tuner, and I try tuning up on 40 m, I won't fry my
tuner. But if the tuner is at the feedpoint, the voltage gets extremely
high.

73
LA4RT Jon

3048. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 09:17:49 UTC
From: w8ji@akorn.net
Message-ID: <1148462269.371863.10800@j73g2000cwa.googlegroups.com>
Source record: 58890

Yuri Blanarovich wrote:
> I wonder how the gurus 'splain the different behavior of vertical vs.
> horizontally polarized antennas, where E field determines the way signals
> reflect and form the pattern. If E and H fields are so "inseparable" there
> should be no difference, right?

The E and H fields are at right angles to each other. The E field is
the field used to define polarization. A "vertical" antenna has a
vertical E field. It has a horizontal H field.

The E field is higher impedance, and easily "shorted" by the earth.
When it goes away so does the H field. This is why a vertically
polarized wave (vertical electric field) has good ground wave
propagation and a horizontally polarized wave has no useful ground
wave.

This is the very reason noise that propagates along the earth any
distance is mostly vertically polarized.

> They are ignoring behavior of E and H fields within the near field of
> antennas and workings of the shield.

No, they understand fine. What most people are saying here fits
perfectly with how everything works.

> Another example of shield's performance was when I had small shielded loop
> next to the Beverage. The combination gave better S/N performance and better
> signal levels than each of them alone. Again, shield performing shielding
> function in the vicinity of near field of both antennas. Loops were tunable
> and performing as an antenna, shield was shielding from the near by
> interference and providing symmetry. FACTS - verifiable not subject to wild
> speculations about current crawling around the edge to inside of tubing, or
> antenna inside of electrostatic shield quitting to work as antenna because
> of "W8JI shield is antenna teachings".

Nobody has said a change in antenna design or construction can't cause
a change in performance. The problem is you are trying to tell us is
the "magnetic" portion of time-varying fields can penetrate the wall of
a metal tube. That is NOT true when the wall is a few skin depths
thick. Nothing can go through, neither the time-varying electric nor
magnetic fields. The gap is the feedpoint, the wire inside the tube
simply a coupling mechanism, and the outside of the tube is the actual
antenna. It can't be any other way.

This is something core to how many basic simple things work. This is
the reason a screen room works, why an aluminum can shields IF or RF
coils, how a shield on a radio works, why coaxial cables act like they

do, and so on.

This is why an ungrounded solid metal plate placed between the axis of two coils diverts the flux. This coupling is why, if we measure the inductance and Q of a short length of concentric conductors, the center conductor has more inductance and significantly less Q than the outer conductor.

It's a large part of why everything works as it does for RF. It's very important we understand it, otherwise we create all types of bad science.

73 Tom

3049. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 10:02:23 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <PaWcg.7218$qn2.6222@trnddc04>
Source record: 58891

"BKR" <REMOVESPAMrchvid7@lycos.comFilter> wrote in message
news:44740422@nntp.zianet.com...
>
>
> n3ox.dan@gmail.com wrote:
>> Is it something like the Lindenblad?
>>
>> http://www.phys.unsw.edu.au/~map/weather/notes/buildyourown/lindenblad.html
>>
>> I'm always interested in an antenna design. Making some drawings or
>> taking some photos (or both) and putting them up on a website with some
>> measurements is a fine way to publish your construction.
>>
>> If you are trying to make some money, I can help for some percentage to
>> be decided :-)
>>
>> Seriously, though, everyone would be interested in the concept. Put it
>> up on a webpage, even if just a couple of photos. I think QSL.net and
>> some other sites will give you hosting.
>>
>> 73,
>> Dan
>> N3OX www.n3ox.net
>>
>
>
>
> I believe this idea has already been done and used at major airports for
> VHF communication. The ones I have seen have 4 dipoles on stalks, and
> each is 45 degrees from horizontal. They are used for aircraft in closs
> proximity to the field where polarization is unpredictable as craft enter,
> leave, and cross over the strip.

Hi BKR

That airport antenna is probably a Lindenblad. It has a serious "lack of
sensitivity" toward zenith. That "null straight up" isnt important at an
airport.
I submit to you that, although this Cross concept is basic and simple,
nobody has yet documented *anything* on it. The Quadrafilar Helix has the
same general pattern characteristics as the Cross, but the Helix is alot
more difficult for me to build and understand. In addition, the Cross can
be made to have considerably more sensitivity toward the horizon than the
Quad Helix.

Jerry

3050. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 14:00:52 UTC
From: richardharrison@webtv.net
Message-ID: <17757-44746714-21@storefull-3257.bay.webtv.net>
Source record: 58892

Richard Clark wrote:
"Choose your own numbers, or find an authority to quote a quantitave
response."

If you can`t detect it, it might as well not exist. If you do detect it,
it`s up to you to correct it or not.

How many antennas have troubled you with new frequencies?

Best regards, Richard Harrison, KB5WZI

3051. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 14:34:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <L9_cg.14202$fb2.4725@newssvr27.news.prodigy.net>
Source record: 58893

Richard Harrison wrote:
> How many antennas have troubled you with new frequencies?

Half a century ago, I installed a ceramic capacitor
across the feedpoint of my dipole to change the
resonant frequency. I'm sure it generated some new
frequencies when it blew up and caught on fire. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3052. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 15:06:21 UTC
From: richardharrison@webtv.net
Message-ID: <28598-4474766D-43@storefull-3255.bay.webtv.net>
Source record: 58895

Curious wrote:
"Will the output of two amplifiers add together in directions where the signal is in phase, or will it act like two different signals and therefore interfere with each other?"

For stereo?

The signals are coherent from two amplifiers or from one.

Two close antennas fed the same signal in the same phase generally add broadside to the plane containing the antennas and cancel at right angles to the lobes containing the added signals.

See page 91 of Kraus` 3rd efition of "Antennas" for: "Two Isotropic Point Sources of the Same Amplitude and Phase."

Another example is the pair af CB antennas used by truckers, one on either side of the truck cab, to reinforce the signal fore and aft of the truck.

The 1/2-wave dipole is another example. Its two elements have the same cuerrent amplitude and direction. Its lobes are broadside and its nulls are at right angles off the tips of the elements.

Best regards, Richard Harrison, KB5WZI

3053. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 15:14:39 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148483679.078024.19470@i40g2000cwc.googlegroups.com>
Source record: 58894

Jerry, can you post a photo on a webpage somewhere?

I think I get it... a single cross is like the driven elements of a circularly polarized crossed yagi, the kind where you get the 90 degree phasing by physical staggering of the elements.

Since it has no reflectors or directors, it's bidirectional. If you cross two Crosses and feed them 90 degrees out of phase you get a more-or-less omnidirectional azimuth pattern.

It is a pair of crossed dipoles fed as a turnstile.

I personally would probably still call it a Lindenblad, but maybe the phasing is different on the Lindenblad.. I think they're phased the same way, though.

Stick up a picture, if you can, or email to me... I'd like to see the construction in case I'm missing something.

73,
Dan
N3OX

3054. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 15:24:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <RU_cg.94695$dW3.76866@newssvr21.news.prodigy.com>
Source record: 58896

Richard Harrison wrote:
> Two close antennas fed the same signal in the same phase generally add
> broadside to the plane containing the antennas and cancel at right
> angles to the lobes containing the added signals.

One thought of interest is that the phasing for a phased
antenna system might be done at the input of one of the
amps, rather than having to manage high power. But I
wonder if two separate amps could maintain coherency
under all conditions of supply voltage, temperature,
humidity, etc.
--
73, Cecil http://www.qsl.net/w5dxp

3055. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 15:35:24 UTC
From: chuck <nospam@nospam.net>
Message-ID: <03%cg.6124$x4.5757@newsread3.news.pas.earthlink.net>
Source record: 58897

Roy Lewallen wrote:
> I'm sure that somewhere in one of your texts you can find the definition
> of linear as applied to networks. Once you do, though, a little thought
> is required to discover that y = mx + b doesn't satisfy the criteria for
> network linearity.
>
> To be linear, a network has to satisfy superposition. This means that:
>
> If y1 is the response to excitation x1 and y2 is the response to
> excitation x2, then the response to x1 + x2 must be y1 + y2.
>
> Let's try that with your function.
>
> The response to x1 is:
>
> y(x1) = mx1 + b
>
> The response to x2 is:
>
> y(x2) = mx2 + b
>
> The sum of y(x1) and y(x2) is:
>
> y(x1) + y(x2) = m(x1 + x2) + 2b
>
> But response to x1 + x2 is:
>
> y(x1 + x2) = m(x1 + x2) + b
>
> These are not equal as they must be to satisfy superposition and
> therefore the requirements for linearity.
>
> Roy Lewallen, W7EL
>
> Richard Harrison wrote:
>> Roy Lewallen, W7EL wrote:
>> "But of course you realize that the function y = mx + b doesn`t meet the
>> requirements of a linear function when applied to network theory."
>>
>> Works for me.
>>
>> Linear means the graph of the function is a straight line.
>>
>> f(x) = y = mx + b is called linear because its graph is a straight line.

>>
>> A straight line is the shortest distance between two points.
>>
>> In y = mx + b, m is a constant determining the slope of the line. x is
>> is the independent variable. b is the offset or point along the x-axis
>> where the line crosses.
>>
>> y then is a linear function of x because its slope is always mx, but
>> displaced in the x-direction by a constant value, namely b.
>>
>> y is linear the same as IR is linear, or by substitution, E is linear in
>> Ohm`s law where E=IR. For any value of I, voltage = IR and the graph of
>> I versus E is a straight line with a slope equal to R.
>>
>> Resistance is a common factor in network theory.
>>
>> Best regards, Richard Harrison, KB5WZI

Not that it means anything, but the linearity requirement is met when
b = 0, which, of course, is a subset of the family of equations of the
form y = mx + b.

73,

Chuck
NT3G

3056. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 15:46:18 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cmv8729cnasblp2aofsfmluuf7nm1av2fe@4ax.com>
Source record: 58898

On Wed, 24 May 2006 09:00:52 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

>Richard Clark wrote:
>"Choose your own numbers, or find an authority to quote a quantitave
>response."
>
>If you can`t detect it, it might as well not exist. If you do detect it,
>it`s up to you to correct it or not.

Hi Richard,

So the long and short of it is that you cannot supply us with any quantifiable information and that you rely solely on impression.

Your explanation sounds like you are practicing psychiatry, not technology. Given the repetition of the same vague answers would give rise to the commonplace observation:
the definition of insanity is doing the same thing
over and over, expecting a new outcome.

73's
Richard Clark, KB7QHC

3057. Re: Special Tower Bolts

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 15:53:47 UTC
From: antenna_dude <antenna_dude@antenna_dude.org>
Message-ID: <44748189.5DB376F1@antenna_dude.org>
Source record: 58899

common bolt

just like lug bolts used on your car to hold the weel on the hub.

3058. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 15:58:28 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148486308.049795.95920@j73g2000cwa.googlegroups.com>
Source record: 58900

I was thinking along the same lines as Jon, LA4RT when I posted my comment... using an 80m dipole on 40m, maybe you want to move the feedpoint away from the current node.

How about this. If you make one leg 5% longer than the other: The length of leg 1 is L, the length of leg 2 is 1.05L. What do you need to have an integer number of half wavelengths on each side of the feedpoint? (This is the only time you can get a mid element current node, right?)

L=m*lambda/2
1.05L=n*lambda/2

=> 1.05(m*lambda/2)=n*lambda/2

The lowest integers that satisfy this: n/m = 105/100 = 21/20.

So until you hit 21 halfwaves on one side and 20 halfwaves on the other, I think you don't have a current node at the feedpoint.

Is this desirable? I think it probably is, but I am not a tuner expert.

73,
Dan

3059. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 16:04:21 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1148486661.748365.219740@u72g2000cwu.googlegroups.com>
Source record: 58901

A good target number for antenna linearity would be one that does not limit system dynamic range. Our best receivers have a dynamic range of around 120 dB as measured by the minimum discernable signal on the low end, and the point where two-tone third order distortion products are detectable on the high end.

140 dB seems reasonable for an antenna and would theoretically be measured the same way as receiver dynamic range, though setting up a noise-free environment, and coupling large distortion-free signals to a test antenna is a challenge, and is probably one reason we don't see these measurements. The other reason is that there is good evidence that a properly built antenna does not limit system dynamic range. That is, it is very linear in the superposition sense.

By the way, generating new frequencies is not necessarily a violation of superposition (though it usually is). Consider a system undergoing a constant Doppler shift.

73,
Glenn AC7ZN

3060. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 16:35:54 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <KX%cg.9000$ix2.690@trnddc03>
Source record: 58902

<n3ox.dan@gmail.com> wrote in message
news:1148483679.078024.19470@i40g2000cwc.googlegroups.com...
> Jerry, can you post a photo on a webpage somewhere?
>
> I think I get it... a single cross is like the driven elements of a
> circularly polarized crossed yagi, the kind where you get the 90 degree
> phasing by physical staggering of the elements.
>
> Since it has no reflectors or directors, it's bidirectional. If you
> cross two Crosses and feed them 90 degrees out of phase you get a
> more-or-less omnidirectional azimuth pattern.
>
> It is a pair of crossed dipoles fed as a turnstile.
>
> I personally would probably still call it a Lindenblad, but maybe the
> phasing is different on the Lindenblad.. I think they're phased the
> same way, though.
>
> Stick up a picture, if you can, or email to me... I'd like to see the
> construction in case I'm missing something.
>
> 73,
> Dan
> N3OX

Hi Dan

The Lindenblad is quite alot different than the Cross. Perhaps my objection to having the Cross being considered to be a version of the Lindenblad is subjective. But, the two antennas are significantly different from each other.

The Cross is not one particular antenna with exact dimensions. The Cross is more a concept. When two Cross antennas are nested together, they can be phased to provide sensitivity to circular polarized signals thruout the hemisphere and have good sensitivity toward the horizon.

Jerry

3061. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 16:41:41 UTC
From: richardharrison@webtv.net
Message-ID: <15322-44748CC5-24@storefull-3251.bay.webtv.net>
Source record: 58903

Cecil, W5DXP wrote:
"I wonder if two separate amps could maintain coherency under all conditions of supply voltage, temperature, humidity, etc."

If reasonable control applies, it works.

I built a rat-race, hybrid-ring, diplexer to parallel two identical shortwave broadcast transmitters. They were fed from the same RF oscillator and from the same audio source. Both were adjusted for nearly 100% modulation. The pair produced nearly 100 KW, fully modulated into the same antenna. It worked fine. No jerking around and little unbalanced energy dissipated into the dummy load. This was no sweat for the antennas which worked with our 100 KW transmitters every day. This is what you need to do when frequency shortages become acute.

The votages in the transmitters were regulated by Sola transformers which had been shipped to us as 60 Hz transformers but reresonated on site for 50 Hz which was our European supply frequency.

Best regards, Richard Harrison, KB5WZI

3062. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 17:09:21 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148490551.287940.114160@j73g2000cwa.googlegroups.com>
Source record: 58904

Are the differences physical, electrical or both?

I must be picturing the wrong setup if I'm conflating your design with the Lindendblad.

You've mentioned the 137MHz Wefax antenna, and that one's not a concept... can you pass along some construction details so I can get a clear picture of it?

Dan

3063. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 17:09:28 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148490568.117358.31110@y43g2000cwc.googlegroups.com>
Source record: 58905

Are the differences physical, electrical or both?

I must be picturing the wrong setup if I'm conflating your design with the Lindendblad.

You've mentioned the 137MHz Wefax antenna, and that one's not a concept... can you pass along some construction details so I can get a clear picture of it?

Dan

3064. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 18:45:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fc697259ilk8i42mojp63rs9d4j4tiauo2@4ax.com>
Source record: 58906

On Tue, 23 May 2006 15:31:13 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Richard Harrison wrote:
>> Roy, W7EL wrote:
>> "It`s a myth that there`s no magnetic field in the space between a
>> capacitor`s plates."
>>
>> Maxwell`s great speculation was that "displacement current", as between
>> a capacitor`s plates, produced magnetic flux as does conduction current.
>> His speculation is now proved.
>
>Yes. So how does a capacitor between two inductors constitute "E-field
>transfer with zero magnetic coupling" as you stated?

Hi All,

Really, this contretemps seems to be over a matter of scale and
application.

Ramo, Whinnery, and Van Duzer make clear distinctions between mutual
couplings and radiative couplings. Most of the discussion in this and
related threads appear to discard these distinctions.

Richard's application of screened air linked couplers and using the
illustration of power transformers is found in "Fields and Waves..."
by these authors:
"Where there is a component of the electric field in phase with
the current, the integral of the electric field cannot be
considered either as a pure "capacitive" or "inductive" voltage
drop since there will be real energy transfer (radiation) from
these terms."
Richard's applications and illustrations do not push this boundary. In
fact, Ramo et. al distinctly offer the case of "electrostatic
shielding" and clearly support the separation of magnetic and electric
flux (fields). And so as to anticipate the conundrum of the "static"
in electrostatic, the authors show no issue. However, they do provide
a rational warning:
"It often happens that electrodes, although grounded
for direct current, may be effectively insulated or floating
at radio frequencies because of impedance in the grounding
leads. In such cases the new electrodes do not accomplish
their shielding purposes but may in fact increase capacitive
coupling."

Insofar as Yuri's complaint, it is an ego trip that wholly ignores the scales of wavelength, the application of materials, the nature of balance, and the misapplication of mutual coupling to explain far field effects. In short, he has been bitten by the "lumped vs. distributed" distinction once again. The only saving grace of his argument may be found in that there are two forms of the "shielded dipole" where one supports Tom's claim, and the other support's Yuri's.

Unfortunately, as correct as Richard's examples are, they too are misapplied to the "shielded dipole." The "shielded dipole" may be small in relation to wavelength, but its response mechanism is NOT found by using mutual coupling math, but rather through radiation math.

73's
Richard Clark, KB7QHC

3065. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 18:53:16 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <t2a97215d1g1uimmmr9j997spirabvn7cm@4ax.com>
Source record: 58907
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc

On Tue, 23 May 2006 23:05:56 GMT, Slow Code <email@no.spam> wrote:

>Ponder This <BBDOBDOBAAPPzjjjj@hotmail.com> wrote in
>news:ohm6725evd9edtv29nelqspiu7ihda94ve@4ax.com:
>
>>
>>
>> Just cusrious...
>>
>> What happens if you pipe the output of one radio in to 2 different
>> amplifiers, and then take the output of the two amps and send them to
>> two identical vertical antennas spaced a half wave apart and with
>> equal length feedlines from the amplifiers.
>>
>> Will the output of the two amplifiers add together in directions where
>> the signal is in phase, or will it act like two different signals and
>> interfere with each other?
>>
>> -Curious
>
>
>Why would you do that? It's the same as just splitting a single output
>from the radio. Depending on spacing and phase you can get of variety of
>different radiation patterns. You don't need to split it between two
>amps.

I've done it with a pair of 160 watt Mirage amps on 2-meters.

Many years ago I owned one of the first high power (bout 600W) solid state 2-meter amps. Inside it was just several amps in parallel on the same, large circuit board. Capacitance on the input adjusted the phase and you basically tuned it for max. The output was the same way. However it used the earlier bi-polar transistors (this would have been in the late 70's) and there was quite a bit of interaction between input and output.

I picked up a pair of 160 watt Mirage amps off e-Bay. With the Mirage amps I disabled the internal keying on one and set it up as a slave to the other. If you leave the internal keying on in both they will cycle back and forth which will have some rather undesirable effects. I used a C3i power divider/combiner on the input and another on the outputs. I tuned them up pretty much as I did the old amp and ended up with over 300 W out.

This approach really need amps of the same make, model, and age (no
design changes) to work the best but it will work. OTOH if starting
from new it's no more expensive to go out and purchase one of the new
380 watt TE amps. The high power Mirage is a bit more expensive.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>I split the output from my radio, lag one 90 degrees, put one in one yagi,
>put one in another yagi and get circular polarization.
>
>
>sc

3066. FS: UG-58A/U Type N Panel Mount

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 18:57:44 UTC
From: AAA RF Products <sales@aaarfproducts.com>
Message-ID: <l12dg.3894$rS6.1281@fed1read11>
Source record: 58908
Cross-posted to: aus.radio.amateur.misc,misc.industry.electronics.marketplace,rec.boats.electronics,rec.radio.amateur.antenna

UG-58A/U Type N Panel Mount Connector made in USA. One piece solid nickel plated brass body. Captive silver plated contact, teflon insulation. Unlimited quantity availabe from stock.

1 to 99 ------ $2.95 each

100 to 499----$2.75 each

500+----------$2.50 each

New Catalog Available

Please email sales@AAARFProducts.com

or call 949 481 3154 (San Clemente, CA, USA)

3067. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 18:59:02 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <n4b97255isachv6k02513fi35n91ud9tvr@4ax.com>
Source record: 58909
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

On Sun, 21 May 2006 19:30:37 -0400, "Lloyd" <Lloyd@namtcrtnet.org>
wrote:

>Which "Roger" are you?

The K8RI Roger.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>
>
>"Roger" <Delete-Invallid.stuff.groups@tm.net> wrote in message
>news:g3t172tmmb8t25sbiu6h38h2sqvbefua9c@4ax.com...
>> On Sat, 20 May 2006 15:15:39 -0700, "Sal M. Onella"
>> <salmonella@food.poisoning.org> wrote:
<snip>

3068. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 19:11:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1279bvtn7e0p886@corp.supernews.com>
Source record: 58910

Richard Clark wrote:
> . . .
> Richard's applications and illustrations do not push this boundary. In
> fact, Ramo et. al distinctly offer the case of "electrostatic
> shielding" and clearly support the separation of magnetic and electric
> flux (fields). . .

Can you direct me to where in the text they do so? All I've found is a short section (5.28) on "Electrostatic Shielding" where they explain that introducing a grounded conductor near two others will reduce the capacitive coupling between them. Obviously this will alter the local E/H ratio, but in no way does it allow an E or H field to exist independently, even locally, let alone at any distance.

Roy Lewallen, W7EL

3069. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 19:12:55 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <mab9721r9adrthhk1g6ultjv7so2f4dl7j@4ax.com>
Source record: 58911
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

On 21 May 2006 23:36:10 -0700, nm5k@wt.net wrote:

>>I asked around and found this practice is far from rare; I'm not sure
>>"common" is the right word, though.
>
>You really need to type if you run cw over about 60wpm

There aren't many who can type 60 wpm, but then again, maybe most of
them are on high speed CW. <:-))

>or so.. That was about my limit as far as sending fairly clean
>with a paddle. I never liked to type, so 55-60 wpm pretty much was

I "touch type" and back when I was a grad student could type a bit
over 60. Now days I have to make too many corrections to maintain
that.

>the limit for me. Most all the high speed people used a keyboard
>to send. But I'd say the majority listened with their ears instead
>of using a reader. The brain is a better reader than most puter CW

Once you reach the point of copying subconsciously it's just like
talking.

>programs. Most don't handle noise very well. Once I hit 55-60 wpm
>on a paddle, I was stretching the limits. Past that, and it was pretty

I made 40 but never higher than that. OTOH back then I was spending
one to two hours a day on CW.

>dang ugly... Slopsville. The keyboards could kick back and type
>about any CW speed with perfect sending. A decent typist can go
>over 100 wpm+.

There are few people who can type that fast. However on CW you type
your response while listening to the other station so the transmission
speed can be well above your typing speed.

I can count on the fingers of one hand the number of people I've met
in school and industry who could even approach that 100 wpm.
The old electric portables used to jam the keys at much over 60 while
the "selectric" could go a fair amount faster. When in college my
daughter wore out one of those and she could out type it.

I shouldn't count the college classes when I was a GA teaching the
intro to CS, out of 195 students I only had about 10 that could type
and none that could keep up with me.

Unfortunately, age is catching up and I've had to slow down with the keyer and I'm not nearly as fast with the keyboard as I was. I can probably still type at 40 wpm after mistakes are taken out. 60 if I don't go back and correct.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>MK

3070. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 19:59:28 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <8X2dg.249$LO3.138@fe11.lga>
Source record: 58912

There is another potential problem if feeding two amps to two antennas that
are reasonably close: RF from one antenna is induced into the other antenna,
gets fed into the amp and causes some interference (mixing ?) that shows up
as a raspy signal.
Tried it, and heard it on another station attempting the same setup.
It seems that it would be easier to control the phasing at the input of the
PAs, but the above effect messes it up, unless antennas are widely separated
and they do not "feed" each other setup.
So, it appears that it is better to use one bigger amp and use proper
phasing to feed the two or more antennas.

--
Yuri Blanarovich, K3BU, VE3BMV

3071. Re: Explanation wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 20:18:16 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e52f29tqj1@avnika.corp.mot.com>
Source record: 58914

"John, N9JG" <john@gotwals.XremoveY.com> wrote in message
news:nvmdncAiGsLfgO7ZRVn-sQ@insightbb.com...
> The ARRL Product Catalog at the link
> http://www.arrl.org/catalog/?item=7571#top
> lists a book titled "Stealth Amateur Radio", ...
>
> Since there appears to be a demand for this book, why wouldn't the ARRL
rush
> to get this book reprinted and posted for sale?

John,
Is this not obvious? Ask the ARRL. Speculations are easy.

BTW, is this book any good?

Dunno.

73, Steve, K9DCI

3072. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 20:36:59 UTC
From: larya <larya@rogers.com>
Message-ID: <1148503019.357934.79960@j33g2000cwa.googlegroups.com>
Source record: 58913

I was told, years ago, that sea water is a very good conductor of radio signals..... Sooo, take your ground wire and simple drop it into the water was a bit of a weight.. and see, or should I say, hear what happens... the length should not matter as the water is your conductor...
Of course make sure your swr is low...
Larry ve3fxq

Will wrote:
> I want to set up a hf antenna for my sailboat.
>
> I have read various guides from Icom etc.
>
> They suggest running copper foil to a Dynaplate and use sea water as
> the ground. How can this work when the Dynaplate is below sea water?
>
> Is sea water equal to copper wire radials as a RF ground system?
>
> Does sea water make a good enough ground without radials?
>
> How can a piece of copper metal about 1 ft square equal several
> radials laying on the boats deck?
>
> Why do i have to use copper foil when most other people suggest using
> ordinary copper wire?
>
> Over seawater what would be the best number of radials to use
> considering that maximum length i can run is 40 ft. I am planning to use
> a backstay antenna with a SGC 230 Tuner.
>
> All ideas and comments appreciated.
>
> Will

3073. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 20:48:25 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e52gqptuu1@avnika.corp.mot.com>
Source record: 58916

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:bkg2725ui18t5pct6cm4of8ejvhmoo21vf@4ax.com...
> On Sun, 21 May 2006 23:48:59 -0500, "AG4QC" <Joel@cyberbest.com>
> wrote:
>
> >I am having a metal roof put on the house and shop. The installer said it
> >isn't required to be grounded. The city inspector said the same thing. Is
> >that really true? I'm thinking of running a #8 from the roof to my common
> >ground. Does that make sense?
>
> Hi Joe,
>
> It is arguable that the entire roof would even be evenly conducting,
> as installed. As conductivity is not a primary concern, the installer
> is not motivated to insure that a #8 wire attached to one panel would
> be felt by any other with any degree of confidence. Further, even if
> all panels exhibited continuity today, this is not to say they would
> tomorrow unless some care was taken to insure tight interconnections.
>
> It is not unheard of here in this group to find Hams taking that care
> and bonding all panels. The sense of it is to reduce the chance of
> developing spurs due to RF currents meeting corroded joints (although,
> no one has ever reported this as a problem, only anticipated it).
>
> 73's
> Richard Clark, KB7QHC

Joe,
Another concern (though I have no experience with roofs, just autos) is the
intermitent contact (as opposed to a rectifying junction, as Richard points
out) that is possible. If there are joints that can make and break, say in
the wind, you may have noise generated. Chain-link fences would be
susceptable to this as well. Wether or not it produces noise in your
receiver, I would think, is rather unlikely, unless you were somewhere near
a broadcast station or another ham for reasons described next.
Interestingly enough, if the transmit antenna is reasonably close to the
roof, it would manifest itself as noise on your *transmitted* signal also,
but probably low enough such that those listeming to you would hear it.
I had some experience with this phenomenon with things like trunk lids and
motorcycle seat springs causing noise in the 150 MHz car phones of the past.
The transmitter illuminated the noisy joint and the czarrier was literally
modulated by this. The near-by noisy joint can be considered to be a
parasitic element in the transmit antenna system and therefore produce
low-level, but annoying amounts of noise modulation. It appears as

sidebands on the transmitter which duplicate the noise of the joint. This in turn was wide-band exnogh to extend over to the receive frequency. Because it was full duplex and both Tx and Rx were on the same antenna, it was a noise problem in the receiver. Also why I believe it is a bad idea to use a chain link fence as a counterpoise.

73, Steve, K9DCI

3074. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 21:02:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7cd972lnqpn8ir6p97q3ajb9f87nf0bv0a@4ax.com>
Source record: 58915

On Wed, 24 May 2006 12:11:52 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Richard Clark wrote:
> > . . .
>> Richard's applications and illustrations do not push this boundary. In
>> fact, Ramo et. al distinctly offer the case of "electrostatic
>> shielding" and clearly support the separation of magnetic and electric
>> flux (fields). . .
>
>Can you direct me to where in the text they do so? All I've found is a
>short section (5.28) on "Electrostatic Shielding" where they explain
>that introducing a grounded conductor near two others will reduce the
>capacitive coupling between them. Obviously this will alter the local
>E/H ratio, but in no way does it allow an E or H field to exist
>independently, even locally, let alone at any distance.

Hi Roy,

Article 5.12 "Circuit Concepts at High Frequencies or Large
Dimensions"

Figure 5.28(a) shows a complete shielding. Of course this is entirely
electric, and arguably magnetic. However, magnetic flux can penetrate
thin shields, electric flux cannot.

This is part and parcel to the world of isolated and shielded
circuits. The electrostatic shields are as effective as they are
complete in their coverage. Their contribution is measured in mutual
capacitance between the two points being isolated. With a drain wire
to ground, and a low enough Z in that wire, then that mutual
capacitance tends towards zero (however, near zero is a matter of
degree as I've offered in past discussion).

Figure 5.28(a) shielding is quite common in medical circuit design,
and mutual capacitance does equal zero; and yet signals and power pass
in and out through magnetic coupling. Isolated relays are a very
compelling example of magnetic transparency in the face of total
electric shielding.

Magnetic shielding operates through reflection or dissipation
(absorption loss due to eddy currents). This loss is a function of
permeability ï¿½. Unfortunately, permeability declines with increasing
frequency, and with declining field strength. Basically, all metals
exhibit the same characteristic ï¿½ above VLF; hence any appeal to
"magnetic materials" used to build antennas is specious.

This is not to say the magnetic shield is ineffective, merely derated seriously from what might be gleaned through poor inference by reading ï¿½ values from tables.

However, it is quite obvious that transformer inter stage shielding and the faraday shield found in AM transmitters is not seeking to optimize this attenuation, far from it. Thus the degree in isolation is found in the ratio of the mutual capacitance between the two points before and after shielding; and the attenuation in magnetic flux induction introduced between the two circuits after shielding.

Returning to Ramo, et. al, the introduction of a partial shield. Figure 5.28(c) is effective insofar as its ability to reduce mutual capacitance.

73's
Richard Clark, KB7QHC

3075. Re: Explanation wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 21:09:58 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148504998.197183.65890@u72g2000cwu.googlegroups.com>
Source record: 58917

n3ox.dan@gmail.com wrote:
> Yikes! Give me $100 and I'll keep putting up steath amateur radio
> ideas on www.n3ox.net... oh, but I guess I'm going to keep doing that
> for free.
>
> I doubt the book is quite that good... I'd like to read it since I'm
> stuck in an apartment for a while.
>
> I imagine that it's like the other ARRL station/antenna books, there
> are a lot of things that you would have seen other places, as there are
> plenty of flagpole and magnetic loop antennas, but there are still some
> novel approaches and good reference material for things you need to
> look at again.
>
> It is a bit strange that they're awaiting permission from the author...
> maybe he's incommunicado or something.

can't help it sorry folks I have to type the following

they are working with by CW
>
> 73
> Dan
> N3OX

3076. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 21:42:41 UTC
From: "H. Adam Stevens, NQ5H" <nq5h@arrl.net>
Message-ID: <1279kqsbib5oj71@corp.supernews.com>
Source record: 58918

http://www.photolib.noaa.gov/nurp/nur09010.htm

This photo is of the barge over the Tektite II habitat; Summer 1970.
I operated W2YRQ from inside the habitat with a Hy Gain 14 AVQ attached to
this steel barge.
We also dropped some heavy cable in the water with the conductors unwound.
Worked great.
73
H.
NQ5H

PS
Reg is usually right.

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:HfudnZtD2umhrO7ZRVnyhA@bt.com...
>A 6" square plate makes an adequate ground when immersed in salt sea
> water. That is unless the transmitter power exceeds 10 kW.
>
>

3077. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 21:51:16 UTC
From: richardharrison@webtv.net
Message-ID: <20320-4474D554-26@storefull-3258.bay.webtv.net>
Source record: 58919

Richard Clark wrote:
"Your explanation sounds like you are practicing psychaitry, not technoligy."

I think quantification is valuable if the measured value is accurate and if the value makes a difference.

Antennas are used with transmitters of megawatts of power. These have limitations by regulations on maximum noise and harmonic content. It depends on the jurisdiction, but maximum noise and distortion must be at least 50 dB below the fully modulated level in some locales. I`ve often used the H.P. noise and distortion analyzer to measure off the air to be sure we complied with the regulation. It never occurred to me that our antenna system had a part in noise and distortion production. I expected curvature in a tube`s characteristics or a failed component to cause a rise in noise and distortion. Not once do I recall our antenna system causing distortion anywhere except in the edges of pattern nulls. This is normal.

Receiving antennas on the other hand deliver a satisfactory signal having only microwatts of power. As one responder noted the dynamic range is enormous. This is not really an issue for concern among amateurs. Antennas are in general distortion free.

Best regards, RIchard Harrison, KB5WZI

3078. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 22:21:09 UTC
From: Howard W3CQH <hgorden@adelphia.net>
Message-ID: <AJ-dnbc2wcbOQenZRVn-uw@adelphia.com>
Source record: 58920
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

Why don't you take this CRAP off line to your friends - it doesn't belong in
any of the HAM RADIO newsgroups!

<Mr_Simon55@yahoo.com> wrote in message
news:1148410520.479296.296360@j73g2000cwa.googlegroups.com...
>
> an_old_friend wrote:
>> W...@yahoo.com wrote:
>> > markie the retard dreams of sucking hot hammie cock!
>> I get all I want no need for me to dream
>>
>> get help
>
> so you admit you're a filthy pervert.
> you love to say "get help".....right back at ya!
>
> here's your help faggot.
>
> http://www.godhatesfags.com
>

3079. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 22:45:56 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <vcn972d7q6dq9h6lkk1epb69c0l6o926f1@4ax.com>
Source record: 58921

On Wed, 24 May 2006 16:51:16 -0500, richardharrison@webtv.net (Richard Harrison) wrote:

> Not once do I recall our antenna system
>causing distortion anywhere except in the edges of pattern nulls.

Hi Richard,

So in this exception, I would make one compelling correlation to your own observation. That distortion of the pattern was a product of non-linear behavior in the characteristic Z of the antenna. That alone seems to be evident. It happens so frequently that we need complex tools (NEC) to juggle the outcome.

We have non-linear behavior, distortion, and it didn't demand harmonics, did it? Such non-linearity AND distortion were in all likelihood trivial, and yet it was noticeable. Now, if no one complained about pattern nulls being lost, would the non-linearity go away? ;-)

Cecil would shrug off 59% worth of distortion to define it linear.

73's
Richard Clark, KB7QHC

3080. tnx Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 22:55:34 UTC
From: ml <m@di.net>
Message-ID: <m-D85D2E.18552924052006@news.verizon.net>
Source record: 58922

> --

just wanted to thank every for the help

3081. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 22:59:58 UTC
From: "jimmiefender@bellsouth.net" <jimmiedee@bellsouth.net>
Message-ID: <uz5dg.45524$QU3.29882@bignews8.bellsouth.net>
Source record: 58923

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e52gqptuu1@avnika.corp.mot.com...
>
> "Richard Clark" <kb7qhc@comcast.net> wrote in message
> news:bkg2725ui18t5pct6cm4of8ejvhmoo21vf@4ax.com...
>> On Sun, 21 May 2006 23:48:59 -0500, "AG4QC" <Joel@cyberbest.com>
>> wrote:
>>
>> >I am having a metal roof put on the house and shop. The installer said
>> >it
>> >isn't required to be grounded. The city inspector said the same thing.
>> >Is
>> >that really true? I'm thinking of running a #8 from the roof to my
>> >common
>> >ground. Does that make sense?
>>
>> Hi Joe,
>>
>> It is arguable that the entire roof would even be evenly conducting,
>> as installed. As conductivity is not a primary concern, the installer
>> is not motivated to insure that a #8 wire attached to one panel would
>> be felt by any other with any degree of confidence. Further, even if
>> all panels exhibited continuity today, this is not to say they would
>> tomorrow unless some care was taken to insure tight interconnections.
>>
>> It is not unheard of here in this group to find Hams taking that care
>> and bonding all panels. The sense of it is to reduce the chance of
>> developing spurs due to RF currents meeting corroded joints (although,
>> no one has ever reported this as a problem, only anticipated it).
>>
>> 73's
>> Richard Clark, KB7QHC
>
> Joe,
> Another concern (though I have no experience with roofs, just autos) is
> the
> intermitent contact (as opposed to a rectifying junction, as Richard
> points
> out) that is possible. If there are joints that can make and break, say
> in
> the wind, you may have noise generated. Chain-link fences would be
> susceptable to this as well. Wether or not it produces noise in your
> receiver, I would think, is rather unlikely, unless you were somewhere
> near

> a broadcast station or another ham for reasons described next.
> Interestingly enough, if the transmit antenna is reasonably close to
> the
> roof, it would manifest itself as noise on your *transmitted* signal also,
> but probably low enough such that those listeming to you would hear it.
> I had some experience with this phenomenon with things like trunk lids and
> motorcycle seat springs causing noise in the 150 MHz car phones of the
> past.
> The transmitter illuminated the noisy joint and the czarrier was literally
> modulated by this. The near-by noisy joint can be considered to be a
> parasitic element in the transmit antenna system and therefore produce
> low-level, but annoying amounts of noise modulation. It appears as
> sidebands on the transmitter which duplicate the noise of the joint. This
> in turn was wide-band exnogh to extend over to the receive frequency.
> Because it was full duplex and both Tx and Rx were on the same antenna, it
> was a noise problem in the receiver. Also why I believe it is a bad idea
> to use a chain link fence as a counterpoise.
>
> 73, Steve, K9DCI
>
>
Perhaps a more realistic concern would be lightning protection. A friend down in Fl had just installed a metal roof on his shop just 3 days prior to it being struck by lightning. Seems the worst damage was a softball size hole burned in the metal. First installing lightning rods and associated grounds would provide a good begining to bonding of a metal roof.

3082. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 23:18:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <5R5dg.14811$fb2.5221@newssvr27.news.prodigy.net>
Source record: 58924

Richard Clark wrote:
> Cecil would shrug off 59% worth of distortion to define it linear.

Richard, seems you suffer from the same affliction as Howard
Hughes, repeating the same psychotic nonsense over and over.
--
73, Cecil http://www.qsl.net/w5dxp

3083. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-24 23:34:54 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148513694.742031.233820@38g2000cwa.googlegroups.com>
Source record: 58925
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

Howard W3CQH wrote:
> Why don't you take this CRAP off line to your friends - it doesn't belong in
> any of the HAM RADIO newsgroups!
>
becuase he is too much of a cowardly child to do so

I thank you sir for puting the blamewhere it belongs on the posters of
such crap

for my part Id be glad not to discuss such a subject in any radio NG if
the rest of the NG would only do the same

3084. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 00:31:59 UTC
From: w8ji@akorn.net
Message-ID: <1148517119.544876.272330@j33g2000cwa.googlegroups.com>
Source record: 58826

Richard Clark wrote:
> Figure 5.28(a) shows a complete shielding. Of course this is entirely
> electric, and arguably magnetic. However, magnetic flux can penetrate
> thin shields, electric flux cannot.

Only when the shield is thin compared to the skin depth.
When the shield is thick relative to skin depth nothing gets through.

This is very easy to prove. I have been making measurements of a ~ .032 inch thick copper wall and with 0dB reference on a small resonant pick up loop my analyzer is in the noise (-90dB) on the side directly opposite that loop.

The same is true for a direct soldered connection to the wall on each opposite side.

One inch to the side on the same side levels are -10dB. That would be a two inch long path shorted by the copper the entire way. Go to the direct opposite side through only .032 thick copper and levels are not even detectable.

> This is part and parcel to the world of isolated and shielded
> circuits. The electrostatic shields are as effective as they are
> complete in their coverage. Their contribution is measured in mutual
> capacitance between the two points being isolated.

I don't have that reference and so cannot see that shield, but the only thing the shield can do is reduce field impedance by changing the ratio of electric to magnetic fields. In order to take either one to zero the other must also be at zero.

I think the confusion comes from misapplying a grid forming a shunt capacitance to reduce direct capacitance between two objects (forming a "T" divider) to the shielded loop antenna or shielded link.

Consider a loop of any size, even a link in a tank coil. That conductor has a field impedance and radiation characteristics largely set by the diameter of the coil.

Once we put a wall around that conductor more than a few skin depths thick NOTHING goes through that wall. The "shield" actually becomes the coupling coil, the link inside simply develops a voltage across the shield to drive that external coil. Both electric and magnetic fields are present on the outer wall of the shield, and while they may be modified by shield balance they really are not much different than we had with just the inner conductor alone. We really just change the balance.

With the grid, we have substantial air gap segmenting the "wall". Naturally the coupling mechanism is different than we have with a solid wall. We, in effect, have dozens of long gaps.

Each conductor in that grid is indeed excited by the magnetic and electric fields, and each conductor has a potential difference across area and a current flowing. Part of the field, both electric and magnetic, leaks through. Part is reradiated by the currents and voltages in the grid.

I think at some point of time MRT or Dave Saloff patented a right angle grid of two layers with opposing ends in each adjacent conductor in each layer grounded that I designed. The idea was to more evenly distribute the fields and prevent "hot spots". This was for a medical application.

Rest assured this applicator produced both time-varying electric and magnetic fields, but the balance was so much improved tuning was more stable. The improved balance and evenly distributed field meant the feedline did not radiate any significant amount when brought near the patient, unlike a regular multiple turn loop.

I still have some prototype applicators here, as well as the field measurements required by the FDA. The applicator actually had to match with lowest return loss into the buttocks of an average size 30 year old female.

73 Tom

3085. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 00:49:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dmv9721t8nvkg3el7f6qvraia5221ljmos@4ax.com>
Source record: 58827

On 24 May 2006 17:31:59 -0700, w8ji@akorn.net wrote:

>> This is part and parcel to the world of isolated and shielded
>> circuits. The electrostatic shields are as effective as they are
>> complete in their coverage. Their contribution is measured in mutual
>> capacitance between the two points being isolated.
>
>I don't have that reference and so cannot see that shield, but the only
>thing the shield can do is reduce field impedance by changing the ratio
>of electric to magnetic fields. In order to take either one to zero the
>other must also be at zero.

Hi Tom,

There are too many contra-examples too sustain your point. What you
are talking about is radiation, this does not account for common
induction that occurs on the very short scales I've offered.

73's
Richard Clark, KB7QHC

3086. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 01:29:28 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44750879$0$6150$39cecf19@news.twtelecom.net>
Source record: 58828
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

Roger wrote:

> There are few people who can type that fast. However on CW you type
> your response while listening to the other station so the transmission
> speed can be well above your typing speed.
>
> I can count on the fingers of one hand the number of people I've met
> in school and industry who could even approach that 100 wpm.
> The old electric portables used to jam the keys at much over 60 while
> the "selectric" could go a fair amount faster. When in college my
> daughter wore out one of those and she could out type it.

My father was NY state champ at over 100 wpm on a manual typewriter in about 1940. I always figured Bucky the milkman must have been my real father, since I was at 15 wpm before typing class, and 12 after a year of it. I still type with 4 fingers, and have to use my eyes to figure where they should go. And I have typed for a living for the last 30+ years. :)

tom
K0TAR

3087. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 02:12:10 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4475127b$0$1010$39cecf19@news.twtelecom.net>
Source record: 58829

Yuri Blanarovich wrote:

> There is another potential problem if feeding two amps to two antennas that
> are reasonably close: RF from one antenna is induced into the other antenna,
> gets fed into the amp and causes some interference (mixing ?) that shows up
> as a raspy signal.
> Tried it, and heard it on another station attempting the same setup.
> It seems that it would be easier to control the phasing at the input of the
> PAs, but the above effect messes it up, unless antennas are widely separated
> and they do not "feed" each other setup.
> So, it appears that it is better to use one bigger amp and use proper
> phasing to feed the two or more antennas.
>

Well, the expert, or should I say, the new GURU, has spoken. He seems
to know all about this complex subject.

I know I will never try this again, as my previous efforts, which seemed
to work, could not possibly have done so. Obviously Wilkenson hybrids
are useless, likewise any ring hybrids, and all other methods of
splitting/combining a transmitter feed.

Sorry guys, they won't work. Yuri said so.

tom
K0TAR

3088. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 02:39:39 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <LN8dg.9122$ix2.5825@trnddc03>
Source record: 58830

<n3ox.dan@gmail.com> wrote in message
news:1148490568.117358.31110@y43g2000cwc.googlegroups.com...
> Are the differences physical, electrical or both?
>
> I must be picturing the wrong setup if I'm conflating your design with
> the Lindendblad.
>
> You've mentioned the 137MHz Wefax antenna, and that one's not a
> concept... can you pass along some construction details so I can get a
> clear picture of it?
>
> Dan

Hi Dan

Yeah, I can show you exactly how I built a Double Cross for receiving NOAA satellite signals. A buddy of mine has chosen to publish everything I send him.

http://213.250.83.83/~jerry/index.html

There is probably too much data on that site. The excess info and pictures may get confusing.

Since you read this "antennas group", I'll assume that you may know as much or more about antennas as I do. I dont claim to know *the best* configuration of the Cross concept for APT reception. I do suggest that four dipoles mounted so they are tilted slightly from vertical and spaced so the diagonal dipoles are about 1/6th wave separated. can be easily fed to provide RHCP toward the horizon and toward zenith. In the web site
http://www.amsat.org/amsat/articles/w6shp/lindy.html
The Lindenblad is described as an array of four dipoles tilted 30 degrees from Horizontal and spaced 0.3 wave and all fed in phase.

The Lindenblad has a deep null straight up. The Double Cross has no null anywhere in the hemisphere.

Thanks for the interest in the Cross. If you have any situation where this hemispheric coverage with sensitivity to circular polarization, I'd be interested in helping you design a Double Cross. All the Double Cross antennas I've made seem to work well for receiving signals from the NOAA polar orbiting satellites.

Jerry

3089. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 03:18:07 UTC
From: Buck <not@this.time>
Message-ID: <4k7a7253kkr6qr7juk3a7ckthqgo54r070@4ax.com>
Source record: 58831

On Wed, 24 May 2006 15:59:28 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>There is another potential problem if feeding two amps to two antennas that
>are reasonably close: RF from one antenna is induced into the other antenna,
>gets fed into the amp and causes some interference (mixing ?) that shows up
>as a raspy signal.
>Tried it, and heard it on another station attempting the same setup.
>It seems that it would be easier to control the phasing at the input of the
>PAs, but the above effect messes it up, unless antennas are widely separated
>and they do not "feed" each other setup.
>So, it appears that it is better to use one bigger amp and use proper
>phasing to feed the two or more antennas.

OK, this brings up another thought... Would the transmitted signal
from antenna a, being close to b, cause b to have a high swr and vica
versa?

--
73 for now
Buck
N4PGW

3090. What radio equipment do you own Markie?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 03:18:27 UTC
From: U-Know-Who <no-one@nowhere.com>
Message-ID: <7m9dg.58262$Qq.45028@tornado.texas.rr.com>
Source record: 58832
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

```
"an_old_friend" <konstans@hotmail.com> wrote in message
news:1148513694.742031.233820@38g2000cwa.googlegroups.com...
>
> Howard W3CQH wrote:
>> Why don't you take this CRAP off line to your friends - it doesn't belong
>> in
>> any of the HAM RADIO newsgroups!
>>
> becuase he is too much of a cowardly child to do so
>
> I thank you sir for puting the blamewhere it belongs on the posters of
> such crap
>
> for my part Id be glad not to discuss such a subject in any radio NG if
> the rest of the NG would only do the same
>

Read the subject, put your money where your mouth is.
```

3091. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 03:50:17 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <ZP9dg.27537$QP4.25382@fed1read12>
Source record: 58833

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:20320-4474D554-26@storefull-3258.bay.webtv.net...

< snip >

Antennas are in general distortion free.

Yes, but "bad times" can make them non-linear. Consider the bolted joints
that get
corroded and semi-conductive over time, with rain and temperature changes to
help.

Nearby RF sources can generate distortion products in my antennas if I
haven't
kept up my maintenance.

3092. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 04:13:29 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <J9adg.27540$QP4.14620@fed1read12>
Source record: 58834

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e52gqptuu1@avnika.corp.mot.com...

< snip >

> Another concern (though I have no experience with roofs, just autos) is
the
> intermitent contact (as opposed to a rectifying junction, as Richard
points
> out) that is possible. If there are joints that can make and break, say
in
> the wind, you may have noise generated. Chain-link fences would be
> susceptable to this as well. Wether or not it produces noise in your
> receiver, I would think, is rather unlikely, unless you were somewhere
near
> a broadcast station or another ham for reasons described next.

It's mostly a problem if you are running two or more rigs at the same
time. Your 2M packet rig could interfere with your 2M ragchew.

The Navy, for whom I work, bonds (or isolates) everything topside for
exactly the reason you stated. The intermittent contacts are noise
generators. The tools for detecting some troublesome items are a rubber
mallet and a pair of handhelds. One guy in radio transmits a carrier,
while listening on a nearby freq. If he hears anything, he grabs his
handheld and barks, "What was that you just tapped on?" Primitive but
functional. Every spark, no matter how small, is an RF generator. Chains
are awful. We hate chains.

3093. Re: What radio equipment do you own Markie?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 04:27:29 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148531248.944859.28630@38g2000cwa.googlegroups.com>
Source record: 58835
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

U-Know-Who wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1148513694.742031.233820@38g2000cwa.googlegroups.com...
> >
> > Howard W3CQH wrote:
> >> Why don't you take this CRAP off line to your friends - it doesn't belong
> >> in
> >> any of the HAM RADIO newsgroups!
> >>
> > becuase he is too much of a cowardly child to do so
> >
> > I thank you sir for puting the blamewhere it belongs on the posters of
> > such crap
> >
> > for my part Id be glad not to discuss such a subject in any radio NG if
> > the rest of the NG would only do the same
> >
>
> Read the subject, put your money where your mouth is.
fine partail inventory

2 sattelite rig (ft 847w which has hf and 6m all mode) and(the Icom
901h wiith 1.2 gig unit) satetlites are one my my favortie moide
altough

several general dual (2m 440 Fm) icom and kewood the Kenwood jas been
fitted with thei VC -H1 SSTV unit

a 6m fm aliinco Mfj 6 m USB

hTs a CB ht (with sbb too boot and and adjusted to allow 10m op whch
should matter soon enough) the relitively new Yeaszu quad band FM,
alincio 222 FM, the small alinco monoband pagers (2m and 440)FM I hgot
for my wife also a ham now a icom HT 2m sport is at the end of the
model name working RS HT for 2m and 440 the RS mini 440 fm they made
some years back.

other gear rs 10 m moble (been using it to drive tranverts to vhf and
uhf bands

tranververters for all mode acces to 222 band and 900mhz band

I am amps for 6 m (all mode) 2 meter and 440 amp (I have several in
aossrted sizes)

Fast scan tranmiter units (full analog tv) tranmiters for 440 and 900 mhz ham bands

i have ana asortment of RC gear including a 6m Rc unit

cb gear am unit instal in my bed room and my fathers and the ham shack the shack and my pick have ssb cappple cb and daul band ham FM, my AATV (ampihp ATV) has 2 m FM VHF marinem and cb am

pair xceiver wfm (gunn diode type homobreww unit for 5 and 10 gig
I know I am over looking a few thing here and there

the staion is capple of operting all mode on all ham from 160m to 1.2 gig except the relitively new 60m alocation as well as cb am usb lsb the log includes various mode inculding a HSCW MS and EME botht of the latter using CW (computer generated and decoded since I can't do it manually) some where I have the gear to put the APRS station back on the air but a couple of peices have been hiding in the dreaded "safe place" since our move

3094. Re: Question about the uses for an antenna design

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 06:30:05 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148538605.792472.170710@i39g2000cwa.googlegroups.com>
Source record: 58836

Jerry,

OK, I'm getting more of an idea of the differences between the Lindy
and the Double Cross.

Well, I'm not particularly satellite-active right now, but I might have
to try one out sometime.

Keep up the experimentation... it would be cool to make a NEC model of
the thing, but I have EZNEC, currently without circular polarization
ability, so I can't do it.

I should try the Wefax thing sometime... that's pretty neat.

I think I have a TNC that can RX such transmissions.

73,
Dan
N3OX
www.n3ox.net

3095. ebay: Icom 756 PROII Available, Nice !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 10:25:21 UTC
From: laborkei <laborkeiNOSPAM@hotmail.com>
Message-ID: <1Cfdg.46071$QU3.35310@bignews8.bellsouth.net>
Source record: 58837
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

http://cgi.ebay.com/Icom-756PROII-Transceiver_W0QQitemZ9731654891

--

3096. Re: ebay: Icom 756 PROII Available, Nice !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 10:29:46 UTC
From: w8ji@akorn.net
Message-ID: <1148552986.398194.197110@38g2000cwa.googlegroups.com>
Source record: 58838
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

laborkei wrote:
> http://cgi.ebay.com/Icom-756PROII-Transceiver_W0QQitemZ9731654891

Why would anyone spam an antenna discussion reflector with ebay trash?

3097. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 10:38:14 UTC
From: w8ji@akorn.net
Message-ID: <1148553494.112985.49700@j73g2000cwa.googlegroups.com>
Source record: 58839

> There are too many contra-examples too sustain your point. What you
> are talking about is radiation, this does not account for common
> induction that occurs on the very short scales I've offered.

Will you give me an example where the electric field is zero and all
coupling is via magnetic flux?

73 Tom

3098. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 11:22:30 UTC
From: rfry@adams.net
Message-ID: <1148556150.475889.261910@y43g2000cwc.googlegroups.com>
Source record: 58840

> OK, this brings up another thought... Would the transmitted signal
> from antenna a, being close to b, cause b to have a high swr and vica
> versa?

Yes. Depending on the single-radiator pattern shapes and installation geometry, mutual coupling between two adjacent antennas of the same polarization, and cut for the same frequency can be -10 dB or less. An "apparent reflected power" of -10 dBc = 1.92 SWR to each tx, plus whatever SWR each antenna system has to the tx hardwired to it.

This performance may be OK for amateur radio, but not for broadcast stations. To avoid this situation, broadcast system designs using several r-f amplifiers combine the amplifier outputs to drive the antenna system from a single set of terminals.

The antenna system design itself provides omnidirectional or directional coverage in the horizontal plane as needed, but it is always fed from a single set of terminals.

3099. Re: ebay: Icom 756 PROII Available, Nice !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 11:51:40 UTC
From: Buck <not@this.time>
Message-ID: <7f6b729kr9vm6o3amk40ldk74c2m8b11ho@4ax.com>
Source record: 58841
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc

On 25 May 2006 03:29:46 -0700, w8ji@akorn.net wrote:

>laborkei wrote:
>> http://cgi.ebay.com/Icom-756PROII-Transceiver_W0QQitemZ9731654891
>
>Why would anyone spam an antenna discussion reflector with ebay trash?

They are too dumb to realize that the ebay search will bring up the
item to those who are interested in finding it.

--
73 for now
Buck
N4PGW

3100. Re: ebay: Icom 756 PROII Available, Nice !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 11:57:25 UTC
From: Buck <not@this.time>
Message-ID: <4n6b72davtbs84eapatpkoetbp45irjntg@4ax.com>
Source record: 58842
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

On Thu, 25 May 2006 06:25:21 -0400, "laborkei"
<laborkeiNOSPAM@hotmail.com> wrote:

>http://cgi.ebay.com/Icom-756PROII-Transceiver_W0QQitemZ9731654891

abuse@bellsouth.net

--
73 for now
Buck
N4PGW

3101. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 15:13:52 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <rRjdg.114$se3.33@fe12.lga>
Source record: 58843

"Tom Ring" <news0002@taring.org> wrote in message
news:4475127b$0$1010$39cecf19@news.twtelecom.net...
> Yuri Blanarovich wrote:
>
>> There is another potential problem if feeding two amps to two antennas
>> that are reasonably close: RF from one antenna is induced into the other
>> antenna, gets fed into the amp and causes some interference (mixing ?)
>> that shows up as a raspy signal.
>> Tried it, and heard it on another station attempting the same setup.
>> It seems that it would be easier to control the phasing at the input of
>> the PAs, but the above effect messes it up, unless antennas are widely
>> separated and they do not "feed" each other setup.
>> So, it appears that it is better to use one bigger amp and use proper
>> phasing to feed the two or more antennas.
>>
>
> Well, the expert, or should I say, the new GURU, has spoken. He seems to
> know all about this complex subject.
>

Aaaah, here chimes in another W8JI worshipper, who can not read posting,
understand it and reply intelligently, but resorting to snotty, personal,
pathetic remarks. You may have noticed that I do not take crap and respond
in kind.

> I know I will never try this again, as my previous efforts, which seemed
> to work, could not possibly have done so. Obviously Wilkenson hybrids are
> useless, likewise any ring hybrids, and all other methods of
> splitting/combining a transmitter feed.
>

READ IT AGAIN carefully, I have not say that "Wilkenson" (learn spelling)
hybrid would not work or anything about dividing - combining signals. I have
noted that if TWO amplifiers are fed into TWO (separate) antennas that are
in close proximity (mutual impedance at play) then the signals from the one
antenna get picked up by the other antenna, fed back to the amplifiers and
cause distortion that manifests itself as a raspy CW tone or SSB modulation
on the air. I also mentioned that possible remedy is to separate the
antennas in a such way that there is no significant signal feedback between
them. Like you could have one amp feeding EU antenna, and another one
feeding SA antenna, separated properly, fed from the same TX and using
splitters, to satisfy the impedance match between the TX and AMPS.

> Sorry guys, they won't work. Yuri said so.
>

I didn't say such a thing, I brought up potential problem to situation (feeding 2 amps to 2 ants) in question and offered possible solution. I did not even mention hybrids or ways of phasing the gizmos, where did you get it from, private conversation with the other Tom? You got the GURU thing mixed up. I do not play GURU on Internet by publicizing "wisdom pages" like W8JI does, I would chime in with help when I see the need for it (and have time) or when I see gross crap being paraded as "gospel".
Thank you for showing your feathers and displaying your depth!
Your picture would look pretier if you engaged in technical, civil discussions, rather than that "W8JI thing".

> tom
> K0TAR
>

Yuri Blanarovich, K3BU, VE3BMV etc.

3102. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 15:32:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <87jb72lnlmra471luaon4p3us57g42f1o0@4ax.com>
Source record: 58844

On 25 May 2006 03:38:14 -0700, w8ji@akorn.net wrote:

>> There are too many contra-examples too sustain your point. What you
>> are talking about is radiation, this does not account for common
>> induction that occurs on the very short scales I've offered.
>
>Will you give me an example where the electric field is zero and all
>coupling is via magnetic flux?

Tom,

As this has already been discussed not but two postings ago, the
posting your responded to, why are you asking for that content again?

73's
Richard Clark, KB7QHC

3103. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 15:40:26 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127bjves1rp06fa@corp.supernews.com>
Source record: 58845

Richard Clark wrote:
> On 25 May 2006 03:38:14 -0700, w8ji@akorn.net wrote:
>
>>> There are too many contra-examples too sustain your point. What you
>>> are talking about is radiation, this does not account for common
>>> induction that occurs on the very short scales I've offered.
>> Will you give me an example where the electric field is zero and all
>> coupling is via magnetic flux?
>
> Tom,
>
> As this has already been discussed not but two postings ago, the
> posting your responded to, why are you asking for that content again?

I was going to ask the same question but Tom beat me to it. And I must have missed the example, too. Would you be so kind as to repost it?

Roy Lewallen, W7EL

3104. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 15:59:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sujb72974rd97dpq24jdacl17e7pag7e0o@4ax.com>
Source record: 58846

On Thu, 25 May 2006 11:13:52 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

> I do not play GURU on Internet by publicizing "wisdom pages" like W8JI
>does

Hi Yuri,

http://www.k3bu.us/loadingcoils.htm
Looks like one of those GURU wisdom pages. A break-away from the Rome
church of QSL.NET. You even have publicized a new link to devotional
writings from your worshippers. They have all the steamy revelation
as the "Gospel of Judas Iscariot" just discovered.

73's
Richard Clark, KB7QHC
whose meek acolytes only whisper their prayers to him privately.

3105. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 16:01:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <j5lb72dq3mjt8rq0dfd8j092ffsbc383s4@4ax.com>
Source record: 58847

On Thu, 25 May 2006 08:40:26 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Richard Clark wrote:
>> On 25 May 2006 03:38:14 -0700, w8ji@akorn.net wrote:
>>
>>>> There are too many contra-examples too sustain your point. What you
>>>> are talking about is radiation, this does not account for common
>>>> induction that occurs on the very short scales I've offered.
>>> Will you give me an example where the electric field is zero and all
>>> coupling is via magnetic flux?
>>
>> Tom,
>>
>> As this has already been discussed not but two postings ago, the
>> posting your responded to, why are you asking for that content again?
>
>I was going to ask the same question but Tom beat me to it. And I must
>have missed the example, too. Would you be so kind as to repost it?
>
>Roy Lewallen, W7EL

>>On Wed, 24 May 2006 12:11:52 -0700, Roy Lewallen <w7el@eznec.com>
>>wrote:
>>
>>>Richard Clark wrote:
>>> > . . .
>>>> Richard's applications and illustrations do not push this boundary. In
>>>> fact, Ramo et. al distinctly offer the case of "electrostatic
>>>> shielding" and clearly support the separation of magnetic and electric
>>>> flux (fields). . .
>>>
>>>Can you direct me to where in the text they do so? All I've found is a
>>>short section (5.28) on "Electrostatic Shielding" where they explain
>>>that introducing a grounded conductor near two others will reduce the
>>>capacitive coupling between them. Obviously this will alter the local
>>>E/H ratio, but in no way does it allow an E or H field to exist
>>>independently, even locally, let alone at any distance.
>>
>>Hi Roy,
>>
>>Article 5.12 "Circuit Concepts at High Frequencies or Large
>>Dimensions"
>>
>>Figure 5.28(a) shows a complete shielding. Of course this is entirely

>>electric, and arguably magnetic. However, magnetic flux can penetrate
>>thin shields, electric flux cannot.
>>
>>This is part and parcel to the world of isolated and shielded
>>circuits. The electrostatic shields are as effective as they are
>>complete in their coverage. Their contribution is measured in mutual
>>capacitance between the two points being isolated. With a drain wire
>>to ground, and a low enough Z in that wire, then that mutual
>>capacitance tends towards zero (however, near zero is a matter of
>>degree as I've offered in past discussion).
>>
>>Figure 5.28(a) shielding is quite common in medical circuit design,
>>and mutual capacitance does equal zero; and yet signals and power pass
>>in and out through magnetic coupling. Isolated relays are a very
>>compelling example of magnetic transparency in the face of total
>>electric shielding.
>>
>>Magnetic shielding operates through reflection or dissipation
>>(absorption loss due to eddy currents). This loss is a function of
>>permeability ï¿½. Unfortunately, permeability declines with increasing
>>frequency, and with declining field strength. Basically, all metals
>>exhibit the same characteristic ï¿½ above VLF; hence any appeal to
>>"magnetic materials" used to build antennas is specious.
>>
>>This is not to say the magnetic shield is ineffective, merely derated
>>seriously from what might be gleaned through poor inference by reading
>>ï¿½ values from tables.
>>
>>However, it is quite obvious that transformer inter stage shielding
>>and the faraday shield found in AM transmitters is not seeking to
>>optimize this attenuation, far from it. Thus the degree in isolation
>>is found in the ratio of the mutual capacitance between the two points
>>before and after shielding; and the attenuation in magnetic flux
>>induction introduced between the two circuits after shielding.
>>
>>Returning to Ramo, et. al, the introduction of a partial shield.
>>Figure 5.28(c) is effective insofar as its ability to reduce mutual
>>capacitance.
>>
>>73's
>>Richard Clark, KB7QHC

3106. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 16:09:52 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <kFkdg.17201$fb2.13632@newssvr27.news.prodigy.net>
Source record: 58848

"Roy Lewallen" <w7el@eznec.com> wrote:
> I was going to ask the same question but Tom beat me to it. And I must
> have missed the example, too. Would you be so kind as to repost it?

Not sure of the context but ideally at a voltage node in an
unterminated transmission line, the E-field is very close to
zero while almost all of the EM energy exists in the H-field.
According to "Optics", by Hecht, the same thing can
happen in free space with light waves.
--
73, Cecil, W5DXP

3107. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 16:26:32 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <zVkdg.91$256.26@fe11.lga>
Source record: 58849

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:sujb72974rd97dpq24jdacl17e7pag7e0o@4ax.com...
> On Thu, 25 May 2006 11:13:52 -0400, "Yuri Blanarovich"
> <K3BU@optonline.net> wrote:
>
>> I do not play GURU on Internet by publicizing "wisdom pages" like W8JI
>>does
>
> Hi Yuri,
>
> http://www.k3bu.us/loadingcoils.htm
> Looks like one of those GURU wisdom pages. A break-away from the Rome
> church of QSL.NET. You even have publicized a new link to devotional
> writings from your worshippers. They have all the steamy revelation
> as the "Gospel of Judas Iscariot" just discovered.
>
> 73's
> Richard Clark, KB7QHC
> whose meek acolytes only whisper their prayers to him privately.

Not at all sireee!
This was response to W8JI baloney and to provide place for some explanation and graphics, which reflectors and NGs do not afford.
If you followed my publishing career since 1958 and behind the Iron Curtain, and if you knew me, you would find that I keep most of the stuff to myself, even some groundbreaking ideas or inventions, I use them to my advantage to gear up and operate in the contests, where I enjoy beating the competition, there, stripped of pompous drivel and boasting. There, results are expressed as points, placement in the ladder or record tables.

It is the most misleading junk science, that when I see it, I get stirred up enough to respond with what I know to be the right or backed up by reality. So if you look at my web site and see the "coil thing" and comparing this to W8JI "guru thing" I wonder about your judgement. I am trying to be civil and stay with technical discussions, but if someone resorts to personal attacks and crap, I do not take it laying down with my mouth open.

I think you would be better off also to stick to matter o'fact technical discussions rather than trying to display your literary talents of poking people in the eyes.

I could care less what youze guyze here theoretize about or fight for number one wize guy on the totem pole, or who you worship.
I enjoy ham radio as a means to keep in step with technology, enjoy contacting and beating people in the contests and to keep my mind sharp.

Last thing I "enjoy" is arguing with an idiot or participate in a pissing contests with skunks. I hope I 'splained myself poetically enuf!

So I will not try to be the "last one standing - right" as W8JI philosophy is. You can have it - argue all you want. I posted what I know, have seen, am convinced of and can prove it. You can "figure" it all you want. I said, described my piece, the reality is the judge and not some scientwists!

Have nice Memorial Day, remember those who gave their lives so you can live in a freedom, otherwise sucks! Been there, paid with lives of dear ones!

73
--
Yuri Blanarovich, K3BU, VE3BMV

3108. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 17:11:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7gob72hgir293b81rpncgjjlsnarabsps0@4ax.com>
Source record: 58850

On Thu, 25 May 2006 12:26:32 -0400, "Yuri Blanarovich"
<K3BU@optonline.net> wrote:

>>> I do not play GURU on Internet by publicizing "wisdom pages" like W8JI
>>>does

>> http://www.k3bu.us/loadingcoils.htm
>> Looks like one of those GURU wisdom pages. A break-away from the Rome
>> church of QSL.NET. You even have publicized a new link to devotional
>> writings from your worshippers. They have all the steamy revelation
>> as the "Gospel of Judas Iscariot" just discovered.

>Not at all sireee!

Hi Yuri,

More surprising are most of those devotional writings come from a
heretic to your kool-aid chapter. Selective editing sure brings out
the hosannas though.

>Have nice Memorial Day, remember those who gave their lives so you can live
>in a freedom, otherwise sucks! Been there, paid with lives of dear ones!

I will be registering voters. Also on the calendar is my usual visit
to the Fort Lawton cemetery.

73's
Richard Clark, KB7QHC
5 generations of family service in the military (including the C.S.A.)

3109. Re: Ramsey ferrite rod antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 17:42:41 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97CE6D2A4B47Bspectrumhogstarbandn@198.186.192.196>
Source record: 58852

>
> BTW, is there a known problem with the eham site?
>
> Bill - W2WO
>
>

yes reported to be DNS issue, to be hopefully fixed today.

3110. Ramsey ferrite rod antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 17:59:12 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <fVldg.96$256.89@fe11.lga>
Source record: 58851

Has anyone tried the Ramsey "Signal Magnet Antenna" as a 160 or 80 meter antenna? It is a ferrite rod (looks about 8 inches long) with a preamp installed next to the rod. The rod would be installed remotely from the control box, using an RG59 connection. It was designed for broadcast band use, but can be tuned elsewhere.

BTW, is there a known problem with the eham site?

Bill - W2WO

3111. femmes mures en manque de sexe cherchent hommes

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 18:24:43 UTC
From: christiane@dunet.web
Message-ID: <4475f66a$0$23264$8fcfb975@news.wanadoo.fr>
Source record: 58853
Body handling: HTML body converted to readable text

[No readable article body recovered]

3112. jeunes filles 18 ans tres chaudes

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 18:24:44 UTC
From: coralie@canaweb.ca
Message-ID: <4475f66c$0$3191$8fcfb975@news.wanadoo.fr>
Source record: 58854
Body handling: HTML body converted to readable text

[No readable article body recovered]

3113. jeune fille 18 ans innocente

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 18:24:45 UTC
From: cinthia@eurasia.net
Message-ID: <4475f66d$0$18343$8fcfb975@news.wanadoo.fr>
Source record: 58855
Body handling: HTML body converted to readable text

[No readable article body recovered]

3114. Re: sgc dipole?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 18:42:15 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-65BC67.10424525052006@netnews.worldnet.att.net>
Source record: 58856

In article <1276n13d85ld919@corp.supernews.com>,
dplatt@radagast.org (Dave Platt) wrote:

snipped

> As I understand it (and this is all second- and third-hand knowledge):
> the SGC tuners (like the SEA tuners from which they're said to have
> been copied and like a lot of similar tuners from Motorola and others)
> were designed primarily to match short verticals (whips and wires)
> working against a much larger ground system. They're designed for
> unbalanced applicatios. Their original application was marine and
> vehicle use, with the tuner very robustly "bonded" to the metal
> chassis of the vehicle. The manuals still make it clear that a large,
> well-bonded ground/counterpoise system connected directly to the tuner
> chassis is what these tuners really "want to see". The acceptable-SWR
> range for a dipole to be matched is rather limited... IIRC the SGC-230
> manual says that it's limited to 5:1 or so.
>

a note here, the SGC, SEA, and Motorola tuners were all deisgned to
feed unbalanced antennas. There were a few hardy souls who took two
SEA 1612B's and made one slave to the CPU of the other, so as to
make a balanced type tuner, with a bit of success, but the firmware
was never designed to do this and it was a hack to be sure.

> When used to center-feed a dipole, making the ground-side leg longer
> than the hot-side leg increases the capacitance to ground on that side
> and may tend to mimic the environment for which the tuners were really
> designed.

I have a few 1612B's that drive dipole antennas with vairous feed systems
scattered around Alaska, and they seem to funcntion at least as good as
an unbalanced Marconi type antenna in the same fixed location. The
whole point of trying this was to be able to ignore the RF Ground at
these fixed sites, which mostly were on Glacal Till, which is just
about the same as a sheet of Glass, as far as RF is concerened. When
I was first entertaining this idea, I spent a lot of time with Bill
Forgey and Mark Johnson @ SEA talking about the possibilites, and we
came to the conclusion that I would work, if one took the 50Ohm Feedline,
DC Power Lines, and Tuned Anunciator Lines and wound the Trifiler on
a big Torriod to isolate the tuner from the the radio.

There are a few that tried to use a 1:1 Balun across the output of the
tuner to ground, and then feeding a balanced feedline/antenna system,
with some sucess, but some of the better MF/HF Antenna Designers that
I consulted, were dubious if that approch was a real valid system.

>
> As to _why_ they want to see it - my guess is that it has to do with
> the details of the tuner's internal circuitry (it's an L or PI tuner),
> the tuning-setting search algorithm in the microprocessor, and perhaps
> the electrical details of the SWR-and-impedance measuring/bridge
> circuit.
>
> The manual comments that if the counterpoise system isn't
> significantly bigger than the radiator, the tuner's microcontroller
> may "become confused" and try to feed power to the ground system
> rather than to the radiator. Yes, I know, this doesn't really makes
> sense electrically... I suspect that it really means that the
> matching-component search algorithm starts making decisions which
> actually drive the system further away from a good match rather than
> towards it. It's also possible that such installations are more prone
> to high levels of RF current flow on the feedline from the
> transmitter, and also to high common-mode RF flow on the power and
> control lines, and that this RF might tend to confuse the tuner's
> SWR-and-impedance sensors and thus disrupt the match-search process.
>
> My own experiences with an SGC tuner seem to confirm the limitations
> and warnings that SGC publishes about the hookup required to establish
> a match. A couple of years ago I picked up a first-generation SGC 230
> (apparently never used, as it was still in the original shipping box
> and bag) at a hamfest for all of $30. I've tried it, and I _can_ get
> it to work, but in my installation it's finicky in the extreme about
> its ability to match a wire.
>

All of the autotuners of this type have serious limitations, especially
as they approch the 1/2Wave point of the physical antenna, where
impedances ramp up to infinite. All of them use the Phase, Frequency,
and Forward/Reverse Power, type sensers to let the cpu know what is
going on as it ripples thru the Fixed L and C in Binary Increments.
Some of the firmware actually has some smarts built in, but most
use the same basic algorythem the Sillbe wrote for the original Motorola
Micom Tuners.

Bruce in alaska who was around the BIZ, when all this was going on....
--
add a <2> before @

3115. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 18:46:37 UTC
From: You <You@shadow.orgs>
Message-ID: <You-1C7E9D.10470925052006@netnews.worldnet.att.net>
Source record: 58857

In article <J9adg.27540$QP4.14620@fed1read12>,
"Sal M. Onella" <salmonella@food.poisoning.org> wrote:

> One guy in radio transmits a carrier,
> while listening on a nearby freq. If he hears anything, he grabs his
> handheld and barks, "What was that you just tapped on?"

Real Radiomen would use a Spectrum Analyser to look for this type of
stuff........Ears are so linear......

3116. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 18:59:04 UTC
From: Me <Me@shadow.orgs>
Message-ID: <Me-9D0ED5.10593625052006@netnews.worldnet.att.net>
Source record: 58858

In article <mpSdnbMomaZeL-7ZRVn-uQ@comcast.com>,
"Eric Fairbank" <fairbank56@yahoo.com> wrote:

> Icom needs to modernize their thinking and get rid of their "old school"
> installation guides. Wire radials are the way to go on your sailboat. Not
> copper foil or wide copper strips, just plain old 14 gauge wire radials. I
> suggest you read some of the threads about this on the Maritime Mobile Ham
> Forum from people with real world experience with marine HF installations.
> You'll find the answers to your questions there:
>
> http://cruisenews.net/cgi-bin/mmham/webbbs_config.pl
>
> Eric
>

Radials are the WORST type of RF Ground for ANY MF/HF Marine Antenna
System. Anyone who has any sense at all can understand this, just
thinbk about it. First, they have to be very long when dealing with
frequencies below 4 Mhz, and unless you have a BIG vessel, you don't
have room for 1/4 wave radials. Second, Radials need to be resonant
to do any good, and that limits them to one or two frequencies, where
Marine Radios need to have antennas that can operate on many Bands,
which is why non-resonate, low impedance, RF Grounds, are used
by most all Commercial Marine Antenna Systems. I suggest that you
go out and get 30 Years of Commercial Marine Radio Installation and
Operation Experience, and then come back and explain it all to us,
again.......in detail.....if you live that long....

Me been there, done that......

3117. Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 20:18:01 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <Zhodg.40613$Lm5.9657@newssvr12.news.prodigy.com>
Source record: 58859

Last week I posted a brainteaser over on qrz.com. Nobody figured
it out. I wonder how many on r.r.a.a can figure it out.

Given: A one second long lossless transmission line with a
steady-state forward power of 200 watts and a reflected power
of 100 watts. How many joules are contained in that feedline?
--
73, Cecil, W5DXP

3118. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 20:58:56 UTC
From: "Dr. Honeydew" <dr_b_honeydew@msn.com>
Message-ID: <1148590736.680643.311690@i39g2000cwa.googlegroups.com>
Source record: 58860

I had Beaker set up an experiment to test this, and after he put out the fire he started in his hair when the first load he tried melted a hole in the lab bench, he finally got it set up right. He determined that the mass of the line increased by about 3.338 femtograms when powered as compared with it unpowered. We're now looking into what to do with the line, as it's cluttering up the lab, and we're open to suggestions.

Regards,
Bunsen

Cecil Moore wrote:
> Last week I posted a brainteaser over on qrz.com. Nobody figured
> it out. I wonder how many on r.r.a.a can figure it out.
>
> Given: A one second long lossless transmission line with a
> steady-state forward power of 200 watts and a reflected power
> of 100 watts. How many joules are contained in that feedline?
> --
> 73, Cecil, W5DXP

3119. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 21:20:27 UTC
From: chuck <nospam@nospam.net>
Message-ID: <vcpdg.7656$y4.5470@newsread2.news.pas.earthlink.net>
Source record: 58861

Eric Fairbank wrote:
> Icom needs to modernize their thinking and get rid of their "old school"
> installation guides. Wire radials are the way to go on your sailboat. Not
> copper foil or wide copper strips, just plain old 14 gauge wire radials. I
> suggest you read some of the threads about this on the Maritime Mobile Ham
> Forum from people with real world experience with marine HF installations.
> You'll find the answers to your questions there:
>
> http://cruisenews.net/cgi-bin/mmham/webbbs_config.pl
>
> Eric
>
> "Will" <bluehyhena@hotmail.com> wrote in message
> news:447311d0_1@news.iprimus.com.au...
>> I want to set up a hf antenna for my sailboat.
>>
>> I have read various guides from Icom etc.
>>
>> They suggest running copper foil to a Dynaplate and use sea water as the
>> ground. How can this work when the Dynaplate is below sea water?
>>
>> Is sea water equal to copper wire radials as a RF ground system?
>>
>> Does sea water make a good enough ground without radials?
>>
>> How can a piece of copper metal about 1 ft square equal several radials
>> laying on the boats deck?
>>
>> Why do i have to use copper foil when most other people suggest using
>> ordinary copper wire?
>>
>> Over seawater what would be the best number of radials to use considering
>> that maximum length i can run is 40 ft. I am planning to use a backstay
>> antenna with a SGC 230 Tuner.
>>
>> All ideas and comments appreciated.
>>
>> Will
>
>

As others have pointed out in other contexts, it is more useful to think
about an HF "radial" on a boat as the "other half" of a vertical dipole,
rather than as an "RF ground". Even with substantial asymmetry (which is

almost a necessity, given the proximity of the horizontal "radial" to the sea), most autotuners can match an off-center-fed, L-shaped configuration easily. It is not necessary that the horizontal "radial" be resonant for good performance.

Disregarding the balanced, center-fed dipole, the most common alternative approaches to a vertical antenna are 1) the use of the sea as a large ground plane, usually with a Dynaplate, and 2) the use of a large conducting surface (traditionally specified as a minimum of 100 square feet) inside the hull. This surface can also be thought of as the other half of an asymmetrical dipole. It is often connected to the sea through under water metal parts such as the keel, in which case it constitutes a kind of hybrid involving both 1 and 2.

Comparative test data on these systems are quite difficult to obtain and virtually all of the information available is anecdotal, rarely reproducible, and often contradictory. Analytical studies of these systems, particularly as applied to fiberglass yachts, are also scarce.

Unless you really know what you are doing, I second Me's advice to find someone with a lot of experience for assistance. Of course, experimentation is a good thing, too.

Good luck.

Chuck

3120. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 21:35:00 UTC
From: richardharrison@webtv.net
Message-ID: <20319-44762304-243@storefull-3258.bay.webtv.net>
Source record: 58862

Cecil, W5DXP wrote:
"How many joules are contained in that feedline?"

I`ll speculate that after one second, 200 joules are contained in the forward wave on that line. Then, after two seconds, another 100 joules has been reflected back toward the line feedpoint where it opposes growth of power input to the line. Total joules on the line is 300.

Forward power minus the reflected power equals 100 watts being supplied by the generator to the load with 200 watts forward power and 100 watts reflrcted power in the line.

Best regards, Richard Harrison, KB5WZI

3121. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 21:52:25 UTC
From: richardharrison@webtv.net
Message-ID: <20319-44762719-246@storefull-3258.bay.webtv.net>
Source record: 58864

Will wrote:
"How can this work when the Dynaplate is below seawater?"

In the old days, an Apelco radio, a Webster antenna, and a Dynaplate ground put you in the marine radio business just fine.

Best regards, Richard Harrison, KB5WZI

3122. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 22:04:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <wRpdg.17291$fb2.6678@newssvr27.news.prodigy.net>
Source record: 58863

Richard Harrison wrote:
> Cecil, W5DXP wrote:
> "How many joules are contained in that feedline?"
>
> Total joules on the line is 300.

That can be shown to be true by noting that during the
transient buildup to steady-state, 300 joules sourced
by the generator have not yet reached the load. That
remains true until the generator is powered down, i.e.
all during steady-state.

> Forward power minus the reflected power equals 100 watts being supplied
> by the generator to the load with 200 watts forward power and 100 watts
> reflrcted power in the line.

But what about the people who say there's no energy in the
reflected wave? Reckon how they sweep all those joules,
whose energy must be conserved, under the rug? :-)
--
73, Cecil http://www.qsl.net/w5dxp

3123. G..g..g..en....genetic???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 22:13:30 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1148595210.353997.301530@i40g2000cwc.googlegroups.com>
Source record: 58865

OK, I'm a bit worried about bringing up this topic given that my search of r.r.a.a. archives has turned up the fact that this has been a very contentious topic in the past... but

GENETIC ANTENNA OPTIMIZATION

There, I got it out.

I'm interested in the possibility of using this kind of search of the space of possible antennas in those situations that we all end up in, you've put the antenna too close to the tower, you're shoehorning it into the attic, or you really really need to mount it on the bumper and not on the roof.

Has anyone written any software that could do this? I guess what I'm imagining is that you input the location and extent of fixed conductors, the tower, the car (yes i know it's hard), the wiring in the walls, whatever, and then you let the computer chew on what particular weird zig-zag of metal will give you the pattern you *want* rather than living with the pattern of an antenna designed without the additional conductors in place.

For attic antennas, you could have a figure of merit based on some combination of minimizing loss and minimizing the currents induced in the fixed conductors. Keep that RF off the house wiring, and the noise off the antenna, while still radiating most of your power?

I guess there was some prior discussion of use of genetic optimization processes to design amateur antennas being of dubious legality because of patents... if this is the case, forget I even posted it.

I could imagine this being of great use to the restricted-space amateur if the code to do it would be tractable and a sensible interface were present.

Roy, you wanna write an EZNEC plugin that takes wires #n to #m and fiddles with them until the far field is within some tolerance of a desired pattern? I bet it would sell...

It's a thought. I'd be interested in what other people think... the word "genetic" could even be dropped if it is a sticking point since I don't really care what particular approach is taken to push the design toward some goal.

73,
Dan
N3OX

www.n3ox.net

3124. Re: G..g..g..en....genetic???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 22:16:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <b1qdg.17293$fb2.1878@newssvr27.news.prodigy.net>
Source record: 58866

n3ox.dan@gmail.com wrote:
> It's a thought. I'd be interested in what other people think... the
> word "genetic" could even be dropped if it is a sticking point since I
> don't really care what particular approach is taken to push the design
> toward some goal.

The genetic algorithms are recursive. Maybe "recursive" would
be a better term for something that is not alive.
--
73, Cecil http://www.qsl.net/w5dxp

3125. Re: G..g..g..en....genetic???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 22:37:46 UTC
From: dplatt@radagast.org
Message-ID: <127ccdq44m0pic7@corp.supernews.com>
Source record: 58867

In article <1148595210.353997.301530@i40g2000cwc.googlegroups.com>,
n3ox.dan@gmail.com <n3ox.dan@gmail.com> wrote:

>I'm interested in the possibility of using this kind of search of the
>space of possible antennas in those situations that we all end up in,
>you've put the antenna too close to the tower, you're shoehorning it
>into the attic, or you really really need to mount it on the bumper and
>not on the roof.
>
>Has anyone written any software that could do this? I guess what I'm
>imagining is that you input the location and extent of fixed
>conductors, the tower, the car (yes i know it's hard), the wiring in
>the walls, whatever, and then you let the computer chew on what
>particular weird zig-zag of metal will give you the pattern you *want*
>rather than living with the pattern of an antenna designed without the
>additional conductors in place.

There are already some general-purpose genetic-optimization packages
freely available in languages such as Perl.

It ought to be possible to write a set of wrappers which uses such a
package to manage the "genome" of an antenna-design space being
searched, convert each individual genome to a NEC configuration, run
NEC2 or a similar package, and extract the results.

>For attic antennas, you could have a figure of merit based on some
>combination of minimizing loss and minimizing the currents induced in
>the fixed conductors. Keep that RF off the house wiring, and the noise
>off the antenna, while still radiating most of your power?

I'm by no means an expert in this field, but based on some reading I
did a month or so ago I have a feeling that a single figure-of-merit
is not necessarily the right way to go. The search process can end up
being extremely (and perhaps excessively) sensitive to small changes
in the weighting factors.

Rather, most people these days seem to approach such problems from the
point of view of Pareto optimality. That is, there are a number of
figures of merit, which evaluate or rate different (and usually
independent) objectives. A possible solution is Pareto-optimal if
any change you make in it results in at least one figure of merit
getting worse.

Optimization system based on Pareto optimality maintain a population
of solutions (many or most of which are Pareto-optimal) and then
generate new solutions from that set (possibly by "genetic" means).

You end up with a bunch of workable Pareto-optimal solutions, and then pick from among them at the end of the process - possibly by applying a final formula to merge the various figures-of-merit for each solution into a final "how good is it?" figure.

Deferring this final merging until the end of the process seems to help keep the search system from prematurely glomming onto what turns out to be a local maximum in the goodness function.

It'd also be a good idea to have some way of evaluating how "brittle" a possible solution is. If even a slight change in one of the parameters causes a previously-optimal solution to become very non-optimal, then it's probably not a good choice for use in an amateur installation.

You might want to look for clusters of Pareto-optimal solutions, and then pick one from near the center of the cluster as being both "representative", and also "robust"... small changes in the parameters wouldn't take you outside of the general area of the cluster.

>I guess there was some prior discussion of use of genetic optimization
>processes to design amateur antennas being of dubious legality because
>of patents... if this is the case, forget I even posted it.

That's certainly an issue. Someone wanting to pursue this might be well advised to do some research into older texts, find out what the state-of-the-art was a couple of decades ago, and base any implementation solely on techniques which were in the public domain back then or which were covered by patents which have since lapsed.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3126. Re: G..g..g..en....genetic???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 22:48:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <jncc725d9m11tgvdahquhaij8gudori8bl@4ax.com>
Source record: 58868

On 25 May 2006 15:13:30 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

>GENETIC ANTENNA OPTIMIZATION
>
>There, I got it out.

Hi Dan,

Hear the one about the constipated antenna designer?
He worked it out with a smith chart.

GA algorithms in this field are used by those with too much money, or
too much time on their hands, or both.

Experience generally trumps the quality of these computational hungry
products. You can search NASA for its recent GA generated antennas
(offered as a new thread some several months ago). They make nice
modern art designs, but it is arguable the effort was worth the
outcome.

73's
Richard Clark, KB7QHC

3127. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 23:07:58 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e55dk2$8m4$1@news.service.uci.edu>
Source record: 58869

One should also carefully consider the
more interesting variation of the
problem: an open transmission line. In
the steady state we have 100 watts
forward, 100 watts reflected, 200 Joules
in the line, and 0 watts being sourced
by the generator. :-)

ac6xg

Cecil Moore wrote:
> Richard Harrison wrote:
>
>> Cecil, W5DXP wrote:
>> "How many joules are contained in that feedline?"
>>
>> Total joules on the line is 300.
>
>
> That can be shown to be true by noting that during the
> transient buildup to steady-state, 300 joules sourced
> by the generator have not yet reached the load. That
> remains true until the generator is powered down, i.e.
> all during steady-state.
>
>> Forward power minus the reflected power equals 100 watts being supplied
>> by the generator to the load with 200 watts forward power and 100 watts
>> reflrcted power in the line.
>
>
> But what about the people who say there's no energy in the
> reflected wave? Reckon how they sweep all those joules,
> whose energy must be conserved, under the rug? :-)

3128. One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 23:38:41 UTC
From: Radio Buff <email@no.spam>
Message-ID: <5erdg.5219$921.1628@newsread4.news.pas.earthlink.net>
Source record: 58870
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

You'll open your QST magazine to the Silent key section and Ham Radio will
be listed.

sc

3129. then dous a favor check out now

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 23:41:31 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148600491.855455.74520@i39g2000cwa.googlegroups.com>
Source record: 58871
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Radio Buff wrote:
> You'll open your QST magazine to the Silent key section and Ham Radio will
> be listed.
>
> sc

then do us a favor check yourself out now

if you are so negitive about the futre why be a part of it?

3130. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-25 23:51:34 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44764307$0$1016$39cecf19@news.twtelecom.net>
Source record: 58872

Yuri Blanarovich wrote:

> "Tom Ring" <news0002@taring.org> wrote in message
> news:4475127b$0$1010$39cecf19@news.twtelecom.net...
>
>>Yuri Blanarovich wrote:
>>
>>
>>>There is another potential problem if feeding two amps to two antennas
>>>that are reasonably close: RF from one antenna is induced into the other
>>>antenna, gets fed into the amp and causes some interference (mixing ?)
>>>that shows up as a raspy signal.
>>>Tried it, and heard it on another station attempting the same setup.
>>>It seems that it would be easier to control the phasing at the input of
>>>the PAs, but the above effect messes it up, unless antennas are widely
>>>separated and they do not "feed" each other setup.
>>>So, it appears that it is better to use one bigger amp and use proper
>>>phasing to feed the two or more antennas.
>>>
>>
>>Well, the expert, or should I say, the new GURU, has spoken. He seems to
>>know all about this complex subject.
>>
>
>
> Aaaah, here chimes in another W8JI worshipper, who can not read posting,
> understand it and reply intelligently, but resorting to snotty, personal,
> pathetic remarks. You may have noticed that I do not take crap and respond
> in kind.
>
>
>>I know I will never try this again, as my previous efforts, which seemed
>>to work, could not possibly have done so. Obviously Wilkenson hybrids are
>>useless, likewise any ring hybrids, and all other methods of
>>splitting/combining a transmitter feed.
>>
>
> READ IT AGAIN carefully, I have not say that "Wilkenson" (learn spelling)
>
<snip>
> Thank you for showing your feathers and displaying your depth!
> Your picture would look pretier if you engaged in technical, civil
> discussions, rather than that "W8JI thing".
>

>
>
>>tom
>>K0TAR
>>
>
>
> Yuri Blanarovich, K3BU, VE3BMV etc.
>
>

Yuru

As far as replying in kind, I've been reading your posts for quite a while, and I haven't noticed that you withhold any criticisms.

If the only errors you made were typos, this crowd wouldn't have a problem with you.

And I know when I am out of my depth, and to keep my mouth firmly shut, as apparently you do not.

tom
K0TAR

3131. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 00:03:07 UTC
From: Dan/W4NTI <w4nti@mindNOSPAMATALLspring.com>
Message-ID: <%Ardg.7747$y4.1609@newsread2.news.pas.earthlink.net>
Source record: 58873
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Lloyd" <lloyd@no.spammmmm> wrote in message
news:DRL017833.2458F8789@tarrnews.net...
> On 21 May 2006 13:12:33 -0700, an old friend drooled:
>> Dan/W4NTI wrote:
>> > Or just a common drunk or dope addict that gets worse as
>> > the night goes on?
>> more libel
>>
>> how drool Dan
>
> Dan doesn't drool. Right, Dan?

No I don't. Why is this particular idiotic thread in every major ham radio
group? It finally dropped out of DX, and now I find it in "equipment".
How about you children make your own little group, all climb into it, and
make each other happy.

Dan/W4NTI

3132. Re: Explanation wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 00:14:38 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <ZKydnTPFjvXx1evZRVn-sw@comcast.com>
Source record: 58874

John, N9JG wrote:

> The ARRL Product Catalog at the link
> http://www.arrl.org/catalog/?item=7571#top
> lists a book titled "Stealth Amateur Radio", with a second printing in 2001.
> However, the catalog entry for this book has "SOLD OUT!" in bold red font. A
> check for this book on eBay finds one copy available for $100!! I then
> called the ARRL store and was told that they didn't know when this book
> would be reprinted and made available. The clerk mentioned something about
> needing to get the author's permission first.
>
> Since there appears to be a demand for this book, why wouldn't the ARRL rush
> to get this book reprinted and posted for sale? BTW, is this book any good?
>
> John, N9JG
>
>

ARRL can't just 'rush to get this book reprinted' because they are NOT
the author. The author has copyright [$$$] interests in publication.

The author is: Kirk A. Kleinschmidt, NT0Z. Try contacting him.

3133. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 00:30:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <F_rdg.76786$_S7.22292@newssvr14.news.prodigy.com>
Source record: 58875

Jim Kelley wrote:
> One should also carefully consider the more interesting variation of the
> problem: an open transmission line. In the steady state we have 100
> watts forward, 100 watts reflected, 200 Joules in the line, and 0 watts
> being sourced by the generator. :-)

Yes, but the 200 joules in the line was previously sourced
by the generator during the transient state. It's hard to
sweep 200 joules under the reflected power rug.
--
73, Cecil http://www.qsl.net/w5dxp

3134. Re: Explanation wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 00:33:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127cj74i0av6482@corp.supernews.com>
Source record: 58726

Dave wrote:
>
> ARRL can't just 'rush to get this book reprinted' because they are NOT
> the author. The author has copyright [$$$] interests in publication.
>
> The author is: Kirk A. Kleinschmidt, NT0Z. Try contacting him.

Although there can be and are exceptions, a publisher generally acquires the copyright from the author prior to publication, so it can reprint as it chooses. But it's also not unusual for the contract to stipulate that the copyright revert back to the author when the publisher is no longer interested (e.g., after the last printing they intend to do has sold out).

Roy Lewallen, W7EL

3135. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 00:38:34 UTC
From: gwatts <gwatts@frontiernet.net>
Message-ID: <e6sdg.2176$Oh1.19@news01.roc.ny>
Source record: 58727
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Radio Buff wrote:
> You'll open your QST magazine to the Silent key section and Ham Radio will
> be listed.
>
> sc

(yawn)

3136. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 00:49:14 UTC
From: Gary Schafer <gaschafer@comcast.net>
Message-ID: <9pjc72l61nevr23547h77bq2vdf86thdiu@4ax.com>
Source record: 58728

On Tue, 23 May 2006 23:44:50 +1000, Will <bluehyhena@hotmail.com>
wrote:

>I want to set up a hf antenna for my sailboat.
>
>I have read various guides from Icom etc.
>
>They suggest running copper foil to a Dynaplate and use sea water as
>the ground. How can this work when the Dynaplate is below sea water?
>
>Is sea water equal to copper wire radials as a RF ground system?
>
>Does sea water make a good enough ground without radials?
>
>How can a piece of copper metal about 1 ft square equal several
>radials laying on the boats deck?
>
>Why do i have to use copper foil when most other people suggest using
>ordinary copper wire?
>
>Over seawater what would be the best number of radials to use
>considering that maximum length i can run is 40 ft. I am planning to use
>a backstay antenna with a SGC 230 Tuner.
>
>All ideas and comments appreciated.
>
>Will

First, radials on a boat are not usually better than a good ground to
seawater.
If you do use radials they need to be resonant which means they need
to be ï¿½ wavelength long at each frequency of operation or they need to
be tuned with a loading coil to make them resonant. The reason is that
if they are not resonant you will get little current into them. Your
antenna system will be unbalanced and being that the radials will
usually be closer to other wires etc. on the boat they will couple
into them before they couple to the sea. That will make the tuner coax
and control cables radiators as well, because of the higher impedance
of the radials.

If the radials are mounted in the bottom of the hull right near the
water they have a chance of coupling to the sea. But if you go to that
trouble it is much easier to couple directly to the seawater with some
metal under the boat. (dynaplate, through hulls etc.)

Radials that do not couple the energy to the sea act as part of the antenna. That wouldn't be bad if that radiation went where you wanted it to go but a large part of it will get into all sorts of things on the boat that you don't want it to.

Radials on a boat are different than when laid over earth. When laid over earth there is tight coupling to the earth and length is not important. When they are elevated above earth they need to be resonant in order to work. Short radials do little good in this situation. A boat installation is similar to an elevated installation on land.

I see some guys on the Maritime mis-information forum spouting about using radials on a boat.

You are much better off getting a connection to the sea for your ground. It is one of the best ground planes available. To do so you need a very short ground lead from the tuner to the sea connection. The best way to accomplish that is to mount the tuner down in the hull right next to the sea ground connection within a foot or so. Then run your antenna lead from the tuner to the antenna as much in the clear as you can.

Remember that no matter where the tuner is mounted the antenna starts at the ground connection. If you have a 10 foot lead from the tuners ground connection to the sea water connection that 10 feet will radiate like the antenna. Problem is so will the coax and tuner control lines radiate and couple into all sorts of places you don't want it to.

By placing the tuner at the ground connection you have control over what radiates and what does not.

Copper foil for the ground lead to the tuner makes a lower impedance path than doe's wire. You want the lowest impedance path you can get for the ground lead.

73
Gary K4FMX

3137. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 00:50:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <whsdg.76790$_S7.64525@newssvr14.news.prodigy.com>
Source record: 58729

Jim Kelley wrote:
> One should also carefully consider the more interesting variation of the
> problem: an open transmission line. In the steady state we have 100
> watts forward, 100 watts reflected, 200 Joules in the line, and 0 watts
> being sourced by the generator. :-)

Expanding on my earlier response - For the first two seconds,
the source doesn't know it is looking into an open transmission
line so a 100 watt source would faithfully output 200 joules
into a one second long open circuit transmission line. That
200 joules cannot be destroyed. Is it mere coincidence that
the forward and reflected waves are 100 joules/sec*(one second),
exactly equal to the 200 joules supplied by the source?
--
73, Cecil http://www.qsl.net/w5dxp

3138. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 01:13:36 UTC
From: Roger <Rog@rogsnutztoo.net>
Message-ID: <12a6p.9m3.17.1@news.alt.net>
Source record: 58730
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Yeah, but the senile old farts still believe they are not only
first responders but that they are on the cutting edge
of technology. Let them wallow in their delusions of how
important ham radio is.

Our "radio" club is more of a social circle. Rarely is anything
technical dicussed, just gossip about other hams. We
meet at Golden Corral. When someone brings their kids along,
the senile old farts start yammering about future hams, and when
is he going to get his ham ticket? Meanwhile, the kids sit
there and eat with iPods stuck in their ears, cell phones in their
hands, and chattering about IM and MySpace.com All of
which may just as well be a foreign language to the delusional
old farts. LOL!

3139. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 01:52:50 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <vctdg.132$CP6.40@fe08.lga>
Source record: 58731

"Tom Ring" <news0002@taring.org> wrote in message
news:44764307$0$1016$39cecf19@news.twtelecom.net...
> Yuri Blanarovich wrote:
>
>> "Tom Ring" <news0002@taring.org> wrote in message
>> news:4475127b$0$1010$39cecf19@news.twtelecom.net...
>>
>>>Yuri Blanarovich wrote:
>>>
>>>
>>>>There is another potential problem if feeding two amps to two antennas
>>>>that are reasonably close: RF from one antenna is induced into the other
>>>>antenna, gets fed into the amp and causes some interference (mixing ?)
>>>>that shows up as a raspy signal.
>>>>Tried it, and heard it on another station attempting the same setup.
>>>>It seems that it would be easier to control the phasing at the input of
>>>>the PAs, but the above effect messes it up, unless antennas are widely
>>>>separated and they do not "feed" each other setup.
>>>>So, it appears that it is better to use one bigger amp and use proper
>>>>phasing to feed the two or more antennas.
>>>>
>>>
>>>Well, the expert, or should I say, the new GURU, has spoken. He seems to
>>>know all about this complex subject.
>>>
>>
>>
>> Aaaah, here chimes in another W8JI worshipper, who can not read posting,
>> understand it and reply intelligently, but resorting to snotty, personal,
>> pathetic remarks. You may have noticed that I do not take crap and
>> respond in kind.
>>
>>
>>>I know I will never try this again, as my previous efforts, which seemed
>>>to work, could not possibly have done so. Obviously Wilkenson hybrids
>>>are useless, likewise any ring hybrids, and all other methods of
>>>splitting/combining a transmitter feed.
>>>
>>
>> READ IT AGAIN carefully, I have not say that "Wilkenson" (learn spelling)
> <snip>
>> Thank you for showing your feathers and displaying your depth!
>> Your picture would look pretier if you engaged in technical, civil
>> discussions, rather than that "W8JI thing".

>>
>>
>>
>>>tom
>>>K0TAR
>>>
>>
>>
>> Yuri Blanarovich, K3BU, VE3BMV etc.
>
> Yuru
>
> As far as replying in kind, I've been reading your posts for quite a
> while, and I haven't noticed that you withhold any criticisms.
>
> If the only errors you made were typos, this crowd wouldn't have a problem
> with you.
>
> And I know when I am out of my depth, and to keep my mouth firmly shut, as
> apparently you do not.
>
> tom
> K0TAR

Typical response. Just read what happened in this thread.
Look at what I wrote, look at what you responded.
I am not criticizing, I respond to crap and personal attacks in kind, not very nice, but I do not need to put up with snotty remarks and personal BS.
Looks like hurlers don't like when one responds in kind.
If discussion is about technical matters, I provide help where I can or feel like. If jerk doesn't like it and comes riding high horse, then I get on my horse too, which happened with W8JI (we go way back) and now with you.
I provided my opinion on 2 PAs to 2 ANTs, you twisted it and snapped GURU crap on it, Richard Clark was right behind you. I hate to see you when you are out of your depth. Now you come on with lecture about "crowd having problem with me"?
You discuss technical matters in a civil way, I respond in kind, you pull out snotty crap, and I don't take it. Mark it down and next time if you want do the technical exchange I am open for dialog.
What you want me to do to be "nice"? Accept the "truth" that current along the loading coil is ALWAYS the same, that shield IS the antenna, that electrostatic shield can't possibly work, that antenna is not an antenna?
Where I come from, we fight for truth and if needed give life for it. If you want me to bow to false teachings, or to take crap, look somewhere else.
So you want to try to be nice and discuss the problems with intermods between two PAs feeding two antennas or play W8JI? I can also engage on Wilkinson's hybrids, I use them.
Let's stay with the subjects of this NG and keep the crap for the toilets.
--
Yuri Blanarovich, K3BU, VE3BMV

3140. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 01:56:52 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148608612.767145.316050@y43g2000cwc.googlegroups.com>
Source record: 58732
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dan/W4NTI wrote:
> "Lloyd" <lloyd@no.spammmmm> wrote in message
> news:DRL017833.2458F8789@tarrnews.net...
> > On 21 May 2006 13:12:33 -0700, an old friend drooled:
> >> Dan/W4NTI wrote:

> No I don't. Why is this particular idiotic thread in every major ham radio
> group?
you don't Know Dan? well I can elp you there becuase someone
crossposted there that is why
> It finally dropped out of DX, and now I find it in "equipment".
> How about you children make your own little group, all climb into it, and
> make each other happy.

where do you get your delsuons Dan?
>
> Dan/W4NTI

3141. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 01:59:19 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <Aitdg.133$CP6.26@fe08.lga>
Source record: 58733
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"Roger" <Rog@rogsnutztoo.net> wrote in message
news:12a6p.9m3.17.1@news.alt.net...
> Yeah, but the senile old farts still believe they are not only
> *first responders* but that they are on the cutting edge
> of technology. Let them wallow in their delusions of how
> important ham radio is.
>
> Our "radio" club is more of a social circle. Rarely is anything
> technical dicussed, just gossip about other hams. We
> meet at Golden Corral. When someone brings their kids along,
> the senile old farts start yammering about future hams, and when
> is he going to get his ham ticket? Meanwhile, the kids sit
> there and eat with iPods stuck in their ears, cell phones in their
> hands, and chattering about IM and MySpace.com All of
> which may just as well be a foreign language to the delusional
> old farts. LOL!

Serves the OF right! They should not have invented and developed that stuff,
shudda stayed with stone tablets.
This year we celebrate Tesla's 150th birthday - da first hams and greatest
engineering genius that gave us so much, yet those with iPods that can't
read their diplomas have no clue.

--
Yuri Blanarovich, K3BU, VE3BMV

3142. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 02:01:59 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148608919.697491.233630@j55g2000cwa.googlegroups.com>
Source record: 58734
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Roger wrote:
> Yeah, but the senile old farts still believe they are not only
> *first responders* but that they are on the cutting edge
> of technology. Let them wallow in their delusions of how
> important ham radio is.
no I'd like to see it survive while folks like SC are whining Hamradio
is both fun and usefull
>
> Our "radio" club is more of a social circle. Rarely is anything
> technical dicussed, just gossip about other hams. We
> meet at Golden Corral. When someone brings their kids along,
> the senile old farts start yammering about future hams, and when
> is he going to get his ham ticket? Meanwhile, the kids sit
> there and eat with iPods stuck in their ears, cell phones in their
> hands, and chattering about IM and MySpace.com All of
> which may just as well be a foreign language to the delusional
> old farts. LOL!

inded it would nice if folks like SC were even withion dx range of the
real world

3143. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 02:35:18 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44766966$0$1018$39cecf19@news.twtelecom.net>
Source record: 58735

Dr. Honeydew wrote:

> I had Beaker set up an experiment to test this, and after he put out
> the fire he started in his hair when the first load he tried melted a
> hole in the lab bench, he finally got it set up right. He determined
> that the mass of the line increased by about 3.338 femtograms when
> powered as compared with it unpowered. We're now looking into what to
> do with the line, as it's cluttering up the lab, and we're open to
> suggestions.
>
> Regards,
> Bunsen
>

That is the best response we will get.

Even if there are correct ones!

tom
K0TAR

3144. Re: Incoming signal elevation question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 02:48:05 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <127cr1qk2re2v0a@corp.supernews.com>
Source record: 58736

An equation that I leave in my HP calculator interrelates the important
parameters.

T = take-of-angle (up from horizon)
D = distance in Mm (40 Mm is all of the way around the earth)
H = virtual height of ionosphere in km

Calculator is using angles in degrees.
Single hop

Cos(T) / Cos(T + 4.5*D) = 1 + H/6366

F2 H for 40 degrees north is between about 250 and 370.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:VEmag.22577$4H.10017@dukeread03...
> Lets assume a single hop 40m signal from 400 miles away. What
> elevation angle does it arrive at? Both stations are using inverted V's
> at nominal height. There are no large bodies of water in between.
>
> Daytime and/or nighttime.
>
> --
> 73's de Ken KG0WX -

3145. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 02:52:31 UTC
From: Buck <not@this.time>
Message-ID: <rarc72pthcn4mvv3c95oidimgvp20aq04h@4ax.com>
Source record: 58737

On Thu, 25 May 2006 22:04:12 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>But what about the people who say there's no energy in the
>reflected wave? Reckon how they sweep all those joules,
>whose energy must be conserved, under the rug? :-)

with a jouler's brush?

--
73 for now
Buck
N4PGW

3146. Re: What radio equipment do you own Markie?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 03:12:21 UTC
From: U-Know-Who <no-one@nowhere.com>
Message-ID: <pmudg.59275$Qq.3229@tornado.texas.rr.com>
Source record: 58738
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

```
"an_old_friend" <konstans@hotmail.com> wrote in message
news:1148531248.944859.28630@38g2000cwa.googlegroups.com...
>
> U-Know-Who wrote:
>> "an_old_friend" <konstans@hotmail.com> wrote in message
>> news:1148513694.742031.233820@38g2000cwa.googlegroups.com...
>> >
>> > Howard W3CQH wrote:
>> >> Why don't you take this CRAP off line to your friends - it doesn't
>> >> belong
>> >> in
>> >> any of the HAM RADIO newsgroups!
>> >>
>> > becuase he is too much of a cowardly child to do so
>> >
>> > I thank you sir for puting the blamewhere it belongs on the posters of
>> > such crap
>> >
>> > for my part Id be glad not to discuss such a subject in any radio NG if
>> > the rest of the NG would only do the same
>> >
>>
>> Read the subject, put your money where your mouth is.
> fine partail inventory
>
> 2 sattelite rig (ft 847w which has hf and 6m all mode) and( the Icom
> 901h wiith 1.2 gig unit) satetlites are one my my favortie moide
> altough
>
> several general dual (2m 440 Fm) icom and kewood the Kenwood jas been
> fitted with thei VC -H1 SSTV unit
>
> a 6m fm aliinco Mfj 6 m USB
>
> hTs a CB ht (with sbb too boot and and adjusted to allow 10m op whch
> should matter soon enough) the relitively new Yeaszu quad band FM,
> alincio 222 FM, the small alinco monoband pagers (2m and 440 )FM I hgot
> for my wife also a ham now a icom HT 2m sport is at the end of the
> model name working RS HT for 2m and 440 the RS mini 440 fm they made
> some years back.
>
> other gear rs 10 m moble (been using it to drive tranverts to vhf and
> uhf bands
```

>
> tranververters for all mode acces to 222 band and 900mhz band
>
> I am amps for 6 m (all mode) 2 meter and 440 amp (I have several in
> aossrted sizes)
>
> Fast scan tranmiter units (full analog tv) tranmiters for 440 and 900
> mhz ham bands
>
> i have ana asortment of RC gear including a 6m Rc unit
>
> cb gear am unit instal in my bed room and my fathers and the ham shack
> the shack and my pick have ssb cappple cb and daul band ham FM, my AATV
> (ampihp ATV) has 2 m FM VHF marinem and cb am
>
> pair xceiver wfm (gunn diode type homobreww unit for 5 and 10 gig
> I know I am over looking a few thing here and there
>
> the staion is capple of operting all mode on all ham from 160m to 1.2
> gig except the relitively new 60m alocation as well as cb am usb lsb
> the log includes various mode inculding a HSCW MS and EME botht of the
> latter using CW (computer generated and decoded since I can't do it
> manually) some where I have the gear to put the APRS station back on
> the air but a couple of peices have been hiding in the dreaded "safe
> place" since our move
>

Wow, got me beat. All I have is an Icom 746 that has been opened up.
Basically transmits from 1-170 Mhz. I do have an Icom 2340H that does the
same. I have several other radios, 2M, 440 that don't merit mentioning.

3147. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 03:16:38 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qqudg.17397$fb2.17348@newssvr27.news.prodigy.net>
Source record: 58739

Buck wrote:
> Cecil Moore <mycall@hotmail.com> wrote:
>
>>But what about the people who say there's no energy in the
>>reflected wave? Reckon how they sweep all those joules,
>>whose energy must be conserved, under the rug? :-)
>
> with a jouler's brush?

All kidding aside, whatever number of joules of energy are
required to support the forward power and reflected power
is provided by the source during the transient condition
following power up.

If the source power is 100 watts, the forward power is 200
watts, the reflected power is 100 watts, and the load power
is 100 watts, all the joules per second needed to support
that forward and reflected power was supplied by the source
before steady-state was reached. Anything else would violate
the conservation of energy principle.

This is easily proven using a one second long lossless
transmission line as a conceptual training aid for the
uninitiated.
--
73, Cecil http://www.qsl.net/w5dxp

3148. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 03:37:52 UTC
From: Frick <frick@frickyall.edu>
Message-ID: <12il8.9up.17.1@news.alt.net>
Source record: 58740
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"Yuri Blanarovich" <K3BU@optonline.net> wrote in message
nothing of any importance.

ZZZ

3149. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 03:38:55 UTC
From: Frick <frick@frickyall.edu>
Message-ID: <12in6.a5r.17.1@news.alt.net>
Source record: 58741
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"an_old_friend" <konstans@hotmail.com> wrote in message
?????????? ///////FLUSHED///////

3150. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 03:50:17 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148615417.011624.269670@i39g2000cwa.googlegroups.com>
Source record: 58742
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Frick wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> ?????????? ///////FLUSHED///////

insightfull

3151. Re: What radio equipment do you own Markie?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 04:05:57 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148616357.882134.117500@j33g2000cwa.googlegroups.com>
Source record: 58743
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

U-Know-Who wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1148531248.944859.28630@38g2000cwa.googlegroups.com...
> >

> > place" since our move
> >
>
> Wow, got me beat.
I have you beat in more ways than just my station, such things as
manners and suc

you have proven tonight you are more interested in being a gay bashing
bigot online than any sort of discusion of radio even here given what
you asked for you can't even call me by my name

> All I have is an Icom 746 that has been opened up.
> Basically transmits from 1-170 Mhz. I do have an Icom 2340H that does the
> same. I have several other radios, 2M, 440 that don't merit mentioning.

3152. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 04:13:31 UTC
From: Nightline It's not <whitegravleman@bigbozosrs.com>
Message-ID: <959de$4476807f$d1cc576c$25796@snip.allthenewsgroups.com>
Source record: 58744
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"Radio Buff" <email@no.spam> wrote in message
news:5erdg.5219$921.1628@newsread4.news.pas.earthlink.net...
> You'll open your QST magazine to the Silent key section and Ham Radio
will
> be listed.
>
> sc

Don't need to. Went to Dayton last
weekend and only ONE-THIRD (1/3)
of the total outdoor flea market spaces
were taken, meaning occupied. Not only
that, I was actually able to park in a lot
at a strip mall just down the road from
the Arena. I have been going to Dayton
since 1980. I've missed going only 4 Years
out of 26. This Year was the absolute
smallest attendance I have ever seen.
This alone should tell you something folks.
I doubt that I'll be going again next Year, if
ever again. Finally do not believe the "official"
attendance figures. They lie thru their teeth
worse than 5 pre-owned auto salesmen.

3153. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 04:38:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127d1irculdn98c@corp.supernews.com>
Source record: 58745

Sorry, this does not contain an example of a (time-varying) electric or magnetic field in the absence of the other. Such a condition is, in fact, impossible.

Richard Clark wrote:
>>>>> . . .
>>>>> Richard's applications and illustrations do not push this boundary. In
>>>>> fact, Ramo et. al distinctly offer the case of "electrostatic
>>>>> shielding" and clearly support the separation of magnetic and electric
>>>>> flux (fields). . .
>>>> Can you direct me to where in the text they do so? All I've found is a
>>>> short section (5.28) on "Electrostatic Shielding" where they explain
>>>> that introducing a grounded conductor near two others will reduce the
>>>> capacitive coupling between them. Obviously this will alter the local
>>>> E/H ratio, but in no way does it allow an E or H field to exist
>>>> independently, even locally, let alone at any distance.
>>> Hi Roy,
>>>
>>> Article 5.12 "Circuit Concepts at High Frequencies or Large
>>> Dimensions"
>>>
>>> Figure 5.28(a) shows a complete shielding. Of course this is entirely
>>> electric, and arguably magnetic. However, magnetic flux can penetrate
>>> thin shields, electric flux cannot.

We've been talking about *time-varying* fields, and must have forgotten to explicitly state that qualification. The figure in question deals with static fields. Time-varying electric flux can indeed penetrate thin shields of finite conductivity, although the E/H ratio within the shield is very small. If a shield could block time-varying electric fields, the time-varying magnetic field which remained would create an electric field. A time-varying magnetic fields creates a time-varying electric field and vice-versa; this is dictated by Maxwell's equations. The answer to question 4.06d in Ramo, et al, "Can a time-varying field of any form exist in space without a corresponding electric field? Can a time-varying electric field exist without the corresponding magnetic field?" is no.

A gapless shield made of a perfect conductor of any thickness will completely block both electric and magnetic fields.

>>>
>>> This is part and parcel to the world of isolated and shielded
>>> circuits. The electrostatic shields are as effective as they are
>>> complete in their coverage. Their contribution is measured in mutual

>>> capacitance between the two points being isolated. With a drain wire
>>> to ground, and a low enough Z in that wire, then that mutual
>>> capacitance tends towards zero (however, near zero is a matter of
>>> degree as I've offered in past discussion).
>>>
>>> Figure 5.28(a) shielding is quite common in medical circuit design,
>>> and mutual capacitance does equal zero; and yet signals and power pass
>>> in and out through magnetic coupling. Isolated relays are a very
>>> compelling example of magnetic transparency in the face of total
>>> electric shielding.

The mutual capacitance at DC equals zero. Time-varying electric fields
penetrate the shield if it's thin in terms of skin depth.

>>> Magnetic shielding operates through reflection or dissipation
>>> (absorption loss due to eddy currents). This loss is a function of
>>> permeability ï¿½. Unfortunately, permeability declines with increasing
>>> frequency, and with declining field strength. Basically, all metals
>>> exhibit the same characteristic ï¿½ above VLF; hence any appeal to
>>> "magnetic materials" used to build antennas is specious.

This is not true. Metals do indeed exhibit varying permeabilities at RF
and above. This can be illustrated by a number of means, a common one
being the efficacy of a powdered iron core.

Electric field shielding also operates through reflection and
dissipation. Permeability affects both, because of its effect on
material wave impedance and skin depth.

>>> This is not to say the magnetic shield is ineffective, merely derated
>>> seriously from what might be gleaned through poor inference by reading
>>> ï¿½ values from tables.

Permeability does indeed change with frequency for a variety of reasons.
Consequently, some intelligence (and often measurement or guesswork) has
to be used to determine what it will be at the frequency in question.

>>> However, it is quite obvious that transformer inter stage shielding
>>> and the faraday shield found in AM transmitters is not seeking to
>>> optimize this attenuation, far from it. Thus the degree in isolation
>>> is found in the ratio of the mutual capacitance between the two points
>>> before and after shielding; and the attenuation in magnetic flux
>>> induction introduced between the two circuits after shielding.
>>>
>>> Returning to Ramo, et. al, the introduction of a partial shield.
>>> Figure 5.28(c) is effective insofar as its ability to reduce mutual
>>> capacitance.

Indeed it is. This is not, however, an example of a (time-varying)
magnetic or electric field existing in isolation.

I readily agree that a static electric or magnetic field can exist in
isolation from the other, as I'm sure all other participants to this

discussion do. But not time-varying ones. You can greatly change the E/H ratio, but you can't make it zero or infinite. And whatever you do will have only a local effect -- the ratio will rapidly approach the intrinsic Z of the medium as you move away from the anomaly which modified the ratio. Rapidly, that is, in terms of wavelength -- it can be quite a physical distance at very low frequencies.

Roy Lewallen, W7EL

3154. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 04:50:08 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1148619008.171309.240530@i39g2000cwa.googlegroups.com>
Source record: 58746
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Radio Buff wrote:
> You'll open your QST magazine to the Silent key section and Ham Radio will
> be listed.
>
> sc

well it is folks like yourself that are working on making that happen

3155. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 05:33:49 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <n64d72h6jafnlmdelg57nqdgq8bu89b6im@4ax.com>
Source record: 58747
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

On Wed, 24 May 2006 20:29:28 -0500, Tom Ring <news0002@taring.org>
wrote:

>Roger wrote:
>
>
>> There are few people who can type that fast. However on CW you type
>> your response while listening to the other station so the transmission
>> speed can be well above your typing speed.
>>
>> I can count on the fingers of one hand the number of people I've met
>> in school and industry who could even approach that 100 wpm.
>> The old electric portables used to jam the keys at much over 60 while
>> the "selectric" could go a fair amount faster. When in college my
>> daughter wore out one of those and she could out type it.
>
>My father was NY state champ at over 100 wpm on a manual typewriter in
>about 1940. I always figured Bucky the milkman must have been my real
>father, since I was at 15 wpm before typing class, and 12 after a year
>of it. I still type with 4 fingers, and have to use my eyes to figure
>where they should go. And I have typed for a living for the last 30+
>years. :)

If I have to look at the keyboard I'm in trouble. My fingers know
where the keys are, but I don't. <:-)) If I'm on the telephone and
taking notes it'd be faster to use a pencil. OTOH I can at least read
my typing.

I was net control for a weather watch net with tornado warnings out
all around us (Lower Michigan). When I did the summary after the net I
realized I need a head set with VOX built in so I can have both hands
free.

When I was a kid I bought a typing book, borrowed an old mechanical
type writer and taught myself. It really didn't take all that long.
I'd guess It took about the same time to get to 60 WPM on a mill as it
did 20 on a key.

My wife remarked that having worked in clerical and administration for
the state she knew a number of people who could type 100 WPM. I asked
if that was mistake free as corrections take time. It turned out they
were considerably slower when mistakes were taken into account. OTOH
when I was a sysadmin for a large corporation one of the system admins
could type so fast the keyboard buzzed. You could watch the
characters flow across the screen and in both directions. If he made

a mistake it might take him two words to recognize it, go back and
retype. I think he still was making over 100 WPM.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>tom
>K0TAR

3156. Re: Explanation wanted

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 07:02:46 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <Vk6yVpBWgqdEFATh@ifwtech.co.uk>
Source record: 58748

Roy Lewallen wrote:
>Dave wrote:
>> ARRL can't just 'rush to get this book reprinted' because they are
>>NOT the author. The author has copyright [$$$] interests in
>>publication.
>> The author is: Kirk A. Kleinschmidt, NT0Z. Try contacting him.
>
>Although there can be and are exceptions, a publisher generally
>acquires the copyright from the author prior to publication, so it can
>reprint as it chooses. But it's also not unusual for the contract to
>stipulate that the copyright revert back to the author when the
>publisher is no longer interested (e.g., after the last printing they
>intend to do has sold out).

In this case, ARRL may simply be contacting the author about any
corrections that need to be made before the next printing.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3157. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 07:21:03 UTC
From: gsm@mendelson.com
Message-ID: <slrne7dau0.e03.gsm@cable.mendelson.com>
Source record: 58749
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

Roger wrote:
>>> I can count on the fingers of one hand the number of people I've met
>>> in school and industry who could even approach that 100 wpm.
>>> The old electric portables used to jam the keys at much over 60 while
>>> the "selectric" could go a fair amount faster. When in college my
>>> daughter wore out one of those and she could out type it.

My wife and son can both type, error free at about that rate. I took
a typing course in the summer when I was in high school and passed the
10wpm error free test. I think in my case it was 10wpm and at least one
word error free :-)

My first wife's sister was able to type faster than an IBM selectric typewriter
(165wpm) error free. She won awards and contests for it.

Geoff.
--
Geoffrey S. Mendelson, Jerusalem, Israel gsm@mendelson.com N3OWJ/4X1GM
IL Voice: (07)-7424-1667 IL Fax: 972-2-648-1443 U.S. Voice: 1-215-821-1838
Visit my 'blog at http://geoffstechno.livejournal.com/

3158. Re: Smith Chart inventor

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 07:55:05 UTC
From: "Helmut Wabnig"
Message-ID: <3tcd72heivlt7hvgrb6p1qpuljokc9ag82@4ax.com>
Source record: 58750

On Fri, 28 Apr 2006 19:55:19 -0400, Dave <W1MCE@comcast.net> wrote:

>
>That was 48 years ago. I wish I could remember everything I've
>forgotten. Heck! I wish I could remember 10% of it!!!!

Thanks for that.
Now I know, I am not alone.

w.

--
Too much space is not good for my health,
said the astronaut and returned to Earth.

3159. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 12:06:38 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4476ef4e$0$1013$39cecf19@news.twtelecom.net>
Source record: 58751

Yuri Blanarovich wrote:
>>
>>As far as replying in kind, I've been reading your posts for quite a
>>while, and I haven't noticed that you withhold any criticisms.
>>
>>If the only errors you made were typos, this crowd wouldn't have a problem
>>with you.
>>
>>And I know when I am out of my depth, and to keep my mouth firmly shut, as
>>apparently you do not.
>>
>>tom
>>K0TAR
>
>
> Typical response. Just read what happened in this thread.
> Look at what I wrote, look at what you responded.
> I am not criticizing, I respond to crap and personal attacks in kind, not
> very nice, but I do not need to put up with snotty remarks and personal BS.
> Looks like hurlers don't like when one responds in kind.
> If discussion is about technical matters, I provide help where I can or feel
> like. If jerk doesn't like it and comes riding high horse, then I get on my
> horse too, which happened with W8JI (we go way back) and now with you.
> I provided my opinion on 2 PAs to 2 ANTs, you twisted it and snapped GURU
> crap on it, Richard Clark was right behind you. I hate to see you when you
> are out of your depth. Now you come on with lecture about "crowd having
> problem with me"?
> You discuss technical matters in a civil way, I respond in kind, you pull
> out snotty crap, and I don't take it. Mark it down and next time if you want
> do the technical exchange I am open for dialog.
> What you want me to do to be "nice"? Accept the "truth" that current along
> the loading coil is ALWAYS the same, that shield IS the antenna, that
> electrostatic shield can't possibly work, that antenna is not an antenna?
> Where I come from, we fight for truth and if needed give life for it. If you
> want me to bow to false teachings, or to take crap, look somewhere else.
> So you want to try to be nice and discuss the problems with intermods
> between two PAs feeding two antennas or play W8JI? I can also engage on
> Wilkinson's hybrids, I use them.
> Let's stay with the subjects of this NG and keep the crap for the toilets.

Thank you for proving my points.

tom
K0TAR

3160. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 12:09:02 UTC
From: Buck <not@this.time>
Message-ID: <7ird729om8cgj10cl75fnmta20sq4sb0o8@4ax.com>
Source record: 58752

On Fri, 26 May 2006 03:16:38 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>
>If the source power is 100 watts, the forward power is 200
>watts, the reflected power is 100 watts, and the load power
>is 100 watts, all the joules per second needed to support
>that forward and reflected power was supplied by the source
>before steady-state was reached. Anything else would violate
>the conservation of energy principle.
>
>This is easily proven using a one second long lossless
>transmission line as a conceptual training aid for the
>uninitiated.

I gathered that from an earlier post, but I think the confusion comes
in the second second, doesn't it? 100 watts of power is generated
from the generator for two seconds. the first second, 100 watts
travels to the antenna and only 100 watts is in the transmission line.
Then for the second second, 100 forward watts is moving towards the
antenna and 50 reflected watts are returning to the transmitter for a
total of 150 watts in the transmission line? Of course, since the
transmitter isn't matched to the antenna, the reflected power is
reflected again for 25 watts being reflected back to the antenna
bringing the power from 100 forward watts to 125 watts (the reason
power meters go up in wattage when SWR rises) thus the antenna
reflects 62.5 watts which adds to the 125 for a total of 187.5 watts
in the transmission line. Sooner or later one will have a meltdown
that will make Chernoble look like a firecracker compared to a
fireworks display. lol

--
73 for now
Buck
N4PGW

3161. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 12:20:38 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <4pCdg.166$CP6.98@fe08.lga>
Source record: 58753

"Tom Ring" <news0002@taring.org> wrote in message
news:4476ef4e$0$1013$39cecf19@news.twtelecom.net...
> Yuri Blanarovich wrote:
>>>
> Thank you for proving my points.
>
> tom
> K0TAR

Thank you for displaying your mental capabilities.
Enjoy unloading your personal digs!

73 Yuri, K3BU

3162. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 12:38:20 UTC
From: Dave <noone@nowhere.com>
Message-ID: <StydnY4A1sBZa-vZnZ2dnUVZ_tKdnZ2d@crocker.com>
Source record: 58754

is that line 1 second long, or 1/2 second long?? a 1 second long line would take 2 seconds worth of energy from the generator before the reflection returned to let it know the line is terminated. this is of course very important if you are measuring lines with tdr's where you can really see those returned waves, of course the time it takes them to get back to the tdr is double the one-way travel time... mess it up and you are looking for faults twice as far down the line as you calculate.

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:whsdg.76790$_S7.64525@newssvr14.news.prodigy.com...
> Jim Kelley wrote:
>> One should also carefully consider the more interesting variation of the
>> problem: an open transmission line. In the steady state we have 100
>> watts forward, 100 watts reflected, 200 Joules in the line, and 0 watts
>> being sourced by the generator. :-)
>
> Expanding on my earlier response - For the first two seconds,
> the source doesn't know it is looking into an open transmission
> line so a 100 watt source would faithfully output 200 joules
> into a one second long open circuit transmission line. That
> 200 joules cannot be destroyed. Is it mere coincidence that
> the forward and reflected waves are 100 joules/sec*(one second),
> exactly equal to the 200 joules supplied by the source?
> --
> 73, Cecil http://www.qsl.net/w5dxp

3163. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 12:41:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <dICdg.17472$fb2.1344@newssvr27.news.prodigy.net>
Source record: 58755

Buck wrote:
> I gathered that from an earlier post, but I think the confusion comes
> in the second second, doesn't it? 100 watts of power is generated
> from the generator for two seconds. the first second, 100 watts
> travels to the antenna and only 100 watts is in the transmission line.
> Then for the second second, 100 forward watts is moving towards the
> antenna and 50 reflected watts are returning to the transmitter for a
> total of 150 watts in the transmission line? Of course, since the
> transmitter isn't matched to the antenna, the reflected power is
> reflected again for 25 watts being reflected back to the antenna
> bringing the power from 100 forward watts to 125 watts (the reason
> power meters go up in wattage when SWR rises) thus the antenna
> reflects 62.5 watts which adds to the 125 for a total of 187.5 watts
> in the transmission line. Sooner or later one will have a meltdown
> that will make Chernoble look like a firecracker compared to a
> fireworks display. lol

Actually, the forward power levels off at 200 watts during steady-state. The reflected power levels off at 100 watts. 300 joules of energy exist that have been sourced but not dissipated in the load. 300 joules are exactly what the forward wave and reflected wave need to support their existence.

Here's the brainteaser configuration:

100W-SGAT---one second long lossless 50 ohm feedline---291.42 ohm load

The 'SGAT' is a signal generator equipped with a super fast auto-tuner that re-reflects all the reflected power back toward the load so there are no losses at the source end. The only losses in the entire system are in the 291.42 ohm load which, to make the math easier, was chosen for a power reflection coefficient of 0.5, i.e. half the incident power is reflected at the load.

I will generate an EXCEL spreadsheet today that will give a second by second summary of the powers and total energy.

In the meantime, here is a more simplified version of the brainteaser.

100W-SGCL---one second long lossless 50 ohm feedline---291.42 ohm load

The 'SGCL' is a signal generator equipped with a circulator and 50 ohm resistor. During steady-state, half the generated power is dissipated in the load and half in the circulator resistor. There are no re-reflections at the source.

During the 1st second, the source supplies 100 joules into the feedline. There is no dissipation either in the load or circulator resistor.

During the 2nd second, the source supplies another 100 joules into the feedline, 50 joules of which are converted to heat in the load and 50 joules of which are reflected from the load as 50 watts of reflected power. At the end of the 2nd second, the feedline contains 150 joules of energy.

During the 3rd second, steady-state is reached. Of the 100 watts sourced, 50 watts are dissipated in the load and 50 watts are dissipated in the circulator resistor. At the end of the 3rd second, the source has generated 300 joules, 100 of which have made it to the load, and 50 of which have made it to the circulator resistor.

300-100-50 = 150 joules stored in the feedline.

100 joules are stored in the 100W forward wave. 100 joules/sec = 100W

50 joules are stored in the 50W reflected wave. 50 joules/sec = 50W

This conservation of energy works for any length feedline. If the feedline were one microsecond long instead of one second long, there would be 150 microjoules stored in the feedline, 100 microjoules in the forward wave and 50 microjoules in the reflected wave.
--
73, Cecil http://www.qsl.net/w5dxp

3164. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 12:50:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <aQCdg.17474$fb2.10199@newssvr27.news.prodigy.net>
Source record: 58756

w8ji@akorn.net wrote:
> I'm really sorry readers are subjected to this sort of thing in a
> technical forum. Please don't associate me with the ranting.

Pot - Kettle, Kettle - Pot. Here's one of your rantings.

W8JI wrote:
> I feel sorry for anyone who has to deal with you on a daily basis.
> No wonder your wife split.

Your technical content is noted.
--
73, Cecil http://www.qsl.net/w5dxp

3165. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 12:59:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <jZCdg.17478$fb2.3242@newssvr27.news.prodigy.net>
Source record: 58757

Dave wrote:
> is that line 1 second long, or 1/2 second long?? a 1 second long line would
> take 2 seconds worth of energy from the generator before the reflection
> returned to let it know the line is terminated. this is of course very
> important if you are measuring lines with tdr's where you can really see
> those returned waves, of course the time it takes them to get back to the
> tdr is double the one-way travel time... mess it up and you are looking for
> faults twice as far down the line as you calculate.

The line is 1 second long. The source is generating 100 watts. So the
number of joules generated starting at t=0 is 100N where N is the
total number of seconds. At the end of 30 seconds, the generator will
have sourced 3000 joules which must be conserved.

I will generate an EXCEL spreadsheet at work today and post it to
my web page when I get home. It will cover the first 30 seconds
in 1 second increments. It will show that of the 3000 joules sourced
by the generator during that first 30 seconds, only 2700 joules have
reached the load. The other 300 joules are contained in the 200W
forward wave and 100W reflected wave.

(200 watts)(one second) = 200 joules in the forward wave

(100 watts)(one second) = 100 joules in the reflected wave

200 joules + 100 joules = 300 joules not delivered to the load
--
73, Cecil http://www.qsl.net/w5dxp

3166. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 13:10:28 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1148649028.065043.96610@j73g2000cwa.googlegroups.com>
Source record: 58758
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

sodomized by an_old_friend wrote:
> Radio Buff wrote:
> > You'll open your QST magazine to the Silent key section and Ham Radio will
> > be listed.
> >
> > sc
>
> well it is folks like yourself that are working on making that happen

Oh, the irony, it's retards like you who are destroying it and America.

3167. converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 13:21:59 UTC
From: Buck <not@this.time>
Message-ID: <g00e72lh8n694shm5fh3bnkva8ovu76koc@4ax.com>
Source record: 58759

I have a wire dipole and an inverted Vee each cut to resonance on a
desired frequency. I would like to add a reflector and/or a director
(one at the time) to make each one a beam. Will adding the reflector
and/or director change the resonant frequency, or just the impedance?

Thanks
Buck
n4pgw

--
73 for now
Buck
N4PGW

3168. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 13:40:08 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <e570fq$4ui$1@news.netins.net>
Source record: 58760

Both, in all likelyhood.

"Buck" <not@this.time> wrote in message
news:g00e72lh8n694shm5fh3bnkva8ovu76koc@4ax.com...
>I have a wire dipole and an inverted Vee each cut to resonance on a
> desired frequency. I would like to add a reflector and/or a director
> (one at the time) to make each one a beam. Will adding the reflector
> and/or director change the resonant frequency, or just the impedance?
>
> Thanks
> Buck
> n4pgw
>
> --
> 73 for now
> Buck
> N4PGW

3169. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 13:44:55 UTC
From: Buck <not@this.time>
Message-ID: <5g0e72h1h97vrl5k5t08t3ucsarjo5agrj@4ax.com>
Source record: 58761

On Fri, 26 May 2006 12:41:45 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Buck wrote:
All this technical detail is interesting, but in the last thirty years
of hamming, I have taken note to know the following:

My radio is most happy when matched with an SWR of less than 1.8:1
If my antenna exceeds that, either adjust it or use a tuner
The higher I raise my antenna, the better.
A yagi works better than a dipole given the same height and direction.
A dipole works better to the west than a beam pointed north.
i would rather have a high gain antenna than a high power amp.

Most importantly:

If band conditions permit, I can talk across the ocean on an antenna
with a 30 db loss, but with certain band conditions, even a 30 db gain
antenna won't make the contact!

I can't tell you how many joules are in my coax, but, if you ask, I
can tell you how many jewels are in my logbook. :)

--
73 for now
Buck
N4PGW

3170. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 13:45:58 UTC
From: Buck <not@this.time>
Message-ID: <8k1e72pr1atcssce577vm6bn842kc61pgj@4ax.com>
Source record: 58762

On Fri, 26 May 2006 08:40:08 -0500, "hasan schiers"
<schiers@netins.net> wrote:

>Both, in all likelyhood.
>
>"Buck" <not@this.time> wrote in message
>news:g00e72lh8n694shm5fh3bnkva8ovu76koc@4ax.com...
>>I have a wire dipole and an inverted Vee each cut to resonance on a
>> desired frequency. I would like to add a reflector and/or a director
>> (one at the time) to make each one a beam. Will adding the reflector
>> and/or director change the resonant frequency, or just the impedance?
>>
>> Thanks
>> Buck
>> n4pgw
>>
>> --
>> 73 for now
>> Buck
>> N4PGW
>
I guess I'll have to try it to see what happens.

Thanks

--
73 for now
Buck
N4PGW

3171. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 13:56:54 UTC
From: Frick <frick@frickyall.edu>
Message-ID: <13mts.rl1.17.1@news.alt.net>
Source record: 58763
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1148619008.171309.240530@i39g2000cwa.googlegroups.com...
>
> Radio Buff wrote:
>> You'll open your QST magazine to the Silent key section and Ham Radio
>> will
>> be listed.
>>
>> sc
>
> well it is folks like yourself that are working on making that happen
>

and senile old farts like you who are in denial.....
ROTFLMAO!

3172. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 14:00:46 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <iSDdg.8$ho6.4@trnddc07>
Source record: 58764

"Buck" <not@this.time> wrote in message
news:g00e72lh8n694shm5fh3bnkva8ovu76koc@4ax.com...
>I have a wire dipole and an inverted Vee each cut to resonance on a
> desired frequency. I would like to add a reflector and/or a director
> (one at the time) to make each one a beam. Will adding the reflector
> and/or director change the resonant frequency, or just the impedance?
>
> Thanks
> Buck
> n4pgw
>
> --
> 73 for now
> Buck
> N4PGW

Hi Buck

Isnt Resonance defined as the frequency where the Impedance has *no*
reactance? Wouldnt that imply that the resonant frequency of the antenna
will always change if its impedance changes?
Can you *ever* change one without changing the other?

Jerry

3173. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 14:13:10 UTC
From: Roger <rog@grodgitboy.net>
Message-ID: <13nsc.vbh.17.1@news.alt.net>
Source record: 58765
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap,ba.broadcast

Roger is posting again. Will the same person who told him to
stop posting last time kindly tell him to stop posting again.

3174. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 14:15:33 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <94Edg.78926$F_3.75248@newssvr29.news.prodigy.net>
Source record: 58766

"Buck" <not@this.time> wrote:
> I can't tell you how many joules are in my coax, but, if you ask, I
> can tell you how many jewels are in my logbook. :)

This is not aimed at people who don't care about such things.
This is aimed at people who do care about such things especially
those who are disseminating false technical information about
such things.

Some say that since there's 100 watts in and 100 watts out
during steady-state, there's nothing left over for the reflected
waves. They apparently forgot about the time immediately
following power up when there was 100 watts in and less
than 100 watts out.
--
73, Cecil, W5DXP

3175. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 14:17:27 UTC
From: Lloyd <Lloyd@mgrpizzagood.com>
Message-ID: <13o4d.ir.17.1@news.alt.net>
Source record: 58767
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap,ba.broadcast

Stop posting to our group Roger.

3176. Re: Special Tower Bolts

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 14:36:22 UTC
From: "g. beat"
Message-ID: <vs2dnaQ8Es70j-rZnZ2dnUVZ_vqdnZ2d@comcast.com>
Source record: 58768

"Jeff Dieterle" <jdieter@nospam.carlnet.org> wrote in message
news:84062$447302fc$ce6b49db$18022@COMTECK.COM...
> Where do I find the galvanized bolts with the spline under the head to
> assemble a 3-leg tower??
Be positive of the correct "grade" of bolt that you should be using for a
tower.
Avoid check surplus bolts of unknown origin - bad event - bolt shears -
and it was a check Far East knock-off, incorrectly marked.

g. beat

3177. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 14:41:46 UTC
From: w8ji@akorn.net
Message-ID: <1148654506.771091.181630@g10g2000cwb.googlegroups.com>
Source record: 58769

Cecil Moore wrote:
> Pot - Kettle, Kettle - Pot. Here's one of your rantings.
>
> W8JI wrote:
> > I feel sorry for anyone who has to deal with you on a daily basis.
> > No wonder your wife split.
>
> Your technical content is noted.
> 73, Cecil http://www.qsl.net/w5dxp

You're absolutely right Cecil.

There is no reason for anyone, including me, to personally attack
others or to rant and rave like a lunatic.

It absolutely ruins techincal forums when people get too personal, no
matter who does it. I think that is a major reason why this newsgroup
fell from being very popular to barely used.

73 Tom

3178. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 14:52:59 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <fDEdg.78939$F_3.17007@newssvr29.news.prodigy.net>
Source record: 58770

```
<w8ji@akorn.net> wrote:
>
> Cecil Moore wrote:
> > Pot - Kettle, Kettle - Pot.
>
> You're absolutely right Cecil.

Someone needs to tell W8JI that there's a nice person
forging postings from his ISP address. :-)
--
73, Cecil, W5DXP
```

3179. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 14:54:46 UTC
From: chuck <nospam@nospam.net>
Message-ID: <WEEdg.382$UT2.248@newsread3.news.pas.earthlink.net>
Source record: 58771

Gary Schafer wrote:
> On Tue, 23 May 2006 23:44:50 +1000, Will <bluehyhena@hotmail.com>
> wrote:
>
>> I want to set up a hf antenna for my sailboat.
>>
>> I have read various guides from Icom etc.
>>
>> They suggest running copper foil to a Dynaplate and use sea water as
>> the ground. How can this work when the Dynaplate is below sea water?
>>
>> Is sea water equal to copper wire radials as a RF ground system?
>>
>> Does sea water make a good enough ground without radials?
>>
>> How can a piece of copper metal about 1 ft square equal several
>> radials laying on the boats deck?
>>
>> Why do i have to use copper foil when most other people suggest using
>> ordinary copper wire?
>>
>> Over seawater what would be the best number of radials to use
>> considering that maximum length i can run is 40 ft. I am planning to use
>> a backstay antenna with a SGC 230 Tuner.
>>
>> All ideas and comments appreciated.
>>
>> Will
>

Hello Gary,

Although I'm not advocating "radials" or any other marine HF grounding approach, I am trying to understand the reasoning used by those who do advocate. I've tried to set up instrumentation that would allow comparative measurements of alternative "ground" properties for yachts, but the problems involved have been overwhelming. I think I understand why the world is not awash in empirical data in this area, especially compared to what is available for land-based verticals.

> First, radials on a boat are not usually better than a good ground to
> seawater.

I think the word "radials" in this thread ought to be in quotes, since we're really not talking about conventional symmetrical radials from

which radiation is substantially canceled. As you point out, the "radials" being discussed in this thread are simply a horizontal part of the radiating antenna and not really radials at all.

Having said that, I would welcome learning your basis for the conclusion, and any info you can offer on how much better and in what way. Do you have a measurement of the HF "ground resistance" provided by seawater using a Dynaplate? Would your conclusion change for a vessel on the Chesapeake where salinity is quite low?

> If you do use radials they need to be resonant which means they need
> to be ï¿½ wavelength long at each frequency of operation or they need to
> be tuned with a loading coil to make them resonant. The reason is that
> if they are not resonant you will get little current into them. Your
> antenna system will be unbalanced and being that the radials will
> usually be closer to other wires etc. on the boat they will couple
> into them before they couple to the sea. That will make the tuner coax
> and control cables radiators as well, because of the higher impedance
> of the radials.

We don't seem to require that the backstay (or whatever vertical radiator we are using) be a physical 1/4 wavelength when we use a tuner. Why would we impose that requirement on the horizontal part of the radiating system? Isn't the famous 100 square feet of copper approach analytically equivalent to a nonresonant "radial"?

It is true that proximity of the horizontal radiator to other wiring can cause problems, and this may be an unequivocal disadvantage to the approach. Of course, an entire sailboat is in the reactive near-field region of the vertical radiating element regardless of the "ground" used and so the coupling issue is a matter of degree.

>
> If the radials are mounted in the bottom of the hull right near the
> water they have a chance of coupling to the sea. But if you go to that
> trouble it is much easier to couple directly to the seawater with some
> metal under the boat. (dynaplate, through hulls etc.)
>
> Radials that do not couple the energy to the sea act as part of the
> antenna. That wouldn't be bad if that radiation went where you wanted
> it to go but a large part of it will get into all sorts of things on
> the boat that you don't want it to.

There are two issues here: interference (already discussed above) and efficiency. Assuming no communication value is given to near-vertical radiation angles (a mistake, in my opinion, for the lower frequencies), the efficiency of an L-shaped, center-fed radiator is probably no worse than 3 dB below that of the same vertical element worked against a perfect ground plane. That is based on simply assuming that 100% of the power that would have been radiated by the horizontal element is dissipated in the "ground". In practice, the typical Dynaplate-based ground plane will be less than perfect, even over salt water, and the

horizontal element will most definitely radiate some power. Hence, my suggestion than 3 dB is worst case and I would not be shocked to see the Dynaplate-based system less efficient. Data, data, data.

>
> Radials on a boat are different than when laid over earth. When laid
> over earth there is tight coupling to the earth and length is not
> important.

If we're now talking about real radials, I wonder if the statement is true. Real radials elevated three feet above seawater might couple very tightly. It would be interesting to see some analysis or measurements of this. But we're talking about "radials" in this thread and the statement is not relevant to them.

When they are elevated above earth they need to be resonant
> in order to work. Short radials do little good in this situation.
> A boat installation is similar to an elevated installation on land.

As mentioned above, I believe elevated radials (real radials) need to be resonant and symmetrical in order to cancel radiation from them. The problem is semantic, of course. A radiating structure with horizontal and vertical components can be 100% efficient with the horizontal components nowhere near resonant lengths. There will be effects on horizontal and vertical patterns but that is impossible to generalize.

>
> I see some guys on the Maritime mis-information forum spouting about
> using radials on a boat.
>
> You are much better off getting a connection to the sea for your
> ground. It is one of the best ground planes available.

I'm curious about how these ground plates work. The attenuation in seawater of RF at 10 MHz is on the order of 30 dB/foot. If a ground plate is four feet below the surface, how does it work? Copper's conductivity is orders of magnitude better than seawater. Do we know the break even point for a copper wire ground plane vs. seawater? Reflection properties of seawater OTOH are well-known and documented.

http://ecjones.org/physics.html
Ionospheric Physics of Radio Wave Propagation

The usual instructions for installing ground plates recommend bonding the RF ground connection to metal tanks, the engine, lifelines, the mast and associated steel rigging (other than the insulated backstay) etc. Sometimes I wonder if all that metal is not forming the "other half of the dipole", pretty much independently of the ground plate's existence. Since a good many installations disregard your recommendation to mount the tuner close to the ground plate, rather than close to the antenna, that 10 feet or so may contribute to the "size" of the counterpoise when a ground plate is used.

I suppose this is heresy, but disproving it would require testing a ground plate with NO connections to the tuner other than transmitter, antenna and ground plate. A manual tuner would make sense for the test. Of course the transmitter would have to be run from an isolated battery so as not to bond the tuner to the boat's DC ground wiring. To make sense of the feedpoint impedance, the antenna should be a quarter wavelength to provide a known radiation resistance, but much of it would be buried in the hull, etc. It quickly becomes complex.

Another factor is that at the higher frequencies, a typical backstay approaches or exceeds a half-wavelength, in which case even a "short" length of wire, with or without a ground plate, will work well. If the ground plate is providing one of the best ground planes available, its impedance should actually decrease with decreases in frequency, given the attenuation of seawater as a function of frequency. Thus, the ground plate should be spectacular at 160 meters. Alas, I have not seen even anecdotal information on that.

To do so you
> need a very short ground lead from the tuner to the sea connection.
> The best way to accomplish that is to mount the tuner down in the hull
> right next to the sea ground connection within a foot or so. Then run
> your antenna lead from the tuner to the antenna as much in the clear
> as you can.
>
> Remember that no matter where the tuner is mounted the antenna starts
> at the ground connection. If you have a 10 foot lead from the tuners
> ground connection to the sea water connection that 10 feet will
> radiate like the antenna. Problem is so will the coax and tuner
> control lines radiate and couple into all sorts of places you don't
> want it to.
>

Without some kind of isolation, that is true. The flip side, though, is that (as you pointed out) the antenna starts 10 feet "lower" and a good deal of radiation from that 10 foot length is now inside the hull. If your objection to the use of "radials" is unwanted coupling, then this must surely fall into the same potential (no pun) category.

> By placing the tuner at the ground connection you have control over
> what radiates and what does not.
>
> Copper foil for the ground lead to the tuner makes a lower impedance
> path than doe's wire. You want the lowest impedance path you can get
> for the ground lead.
>
> 73
> Gary K4FMX
>

Be interested in your thoughts on these issues, Gary. Sorry for the length.

73,

Chuck
NT3G

3180. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 15:19:10 UTC
From: Steven <thisjukeboxplays33rpm@yahoo.com>
Message-ID: <1148656750.585295.42790@u72g2000cwu.googlegroups.com>
Source record: 58772
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap,ba.broadcast

We really mean it this time.

3181. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 15:23:01 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1148656981.575036.50930@g10g2000cwb.googlegroups.com>
Source record: 58773
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Frick wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1148619008.171309.240530@i39g2000cwa.googlegroups.com...
> >
> > Radio Buff wrote:
> >> You'll open your QST magazine to the Silent key section and Ham Radio
> >> will
> >> be listed.
> >>
> >> sc
> >
> > well it is folks like yourself that are working on making that happen
> >
>
>
> and senile old farts like you who are in denial.....
senile?

at 42? nope

I see it clearly I am almost always the youngerets man in the room at
ham club meeting and the rare occasion I am not it isn't by much
> ROTFLMAO!

3182. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 15:32:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127e7sf1v8kjee8@corp.supernews.com>
Source record: 58774

Jerry Martes wrote:
> "Buck" <not@this.time> wrote in message
> news:g00e72lh8n694shm5fh3bnkva8ovu76koc@4ax.com...
>> I have a wire dipole and an inverted Vee each cut to resonance on a
>> desired frequency. I would like to add a reflector and/or a director
>> (one at the time) to make each one a beam. Will adding the reflector
>> and/or director change the resonant frequency, or just the impedance?
>>
>> Thanks
>> Buck
>> n4pgw
>>
>> --
>> 73 for now
>> Buck
>> N4PGW
>
> Hi Buck
>
> Isnt Resonance defined as the frequency where the Impedance has *no*
> reactance? Wouldnt that imply that the resonant frequency of the antenna
> will always change if its impedance changes?
> Can you *ever* change one without changing the other?

You're correct about the definition of resonance.

Buck's statement would have made more sense if it the last words were
"just the resistance", and that's likely what he meant.

Sure, you can change the impedance without changing the resonant
frequency -- a transformer will do that, for example. At resonance, the
resistance will simply be a different value.

But to answer Buck's question, adding another element will almost
certainly change both the resistance and reactance at the feedpoint, and
therefore the resonant frequency.

Roy Lewallen, W7EL

3183. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 15:45:16 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1148658316.784635.109970@j55g2000cwa.googlegroups.com>
Source record: 58775
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap,ba.broadcast

Steven wrote:
> We really mean it this time.

good luck

3184. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 15:46:12 UTC
From: Steven <thisjukeboxplays33rpm@yahoo.com>
Message-ID: <1148658372.470637.155670@g10g2000cwb.googlegroups.com>
Source record: 58776
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap,ba.broadcast

I'm not the one who needs luck.

3185. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 15:51:17 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1148658677.296674.281140@i39g2000cwa.googlegroups.com>
Source record: 58777
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap,ba.broadcast

Steven wrote:
> I'm not the one who needs luck.
yes you are not flaming you but Roger has resited years of concerted
attacks by those he has abused in RRAP and other places
I wish you luck and most of all success

3186. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 16:08:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <4oadnezMd691terZnZ2dnUVZ8s2dnZ2d@bt.com>
Source record: 58778

I'm gonna be like Brer Rabbit and say nuffin.

3187. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 16:12:22 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <lOFdg.21$Zb5.1@fe08.lga>
Source record: 58779

So stick to technical questions and answers, keep comments about someone's wife, license class, foaming, etc. to yourself. You start the crap and then scream when "favor" is returned. Just go back and look who initiates that, instead of answers to questions in question.

Bada BUm

<w8ji@akorn.net> wrote in message
news:1148654506.771091.181630@g10g2000cwb.googlegroups.com...
>
> Cecil Moore wrote:
>> Pot - Kettle, Kettle - Pot. Here's one of your rantings.
>>
>> W8JI wrote:
>> > I feel sorry for anyone who has to deal with you on a daily basis.
>> > No wonder your wife split.
>>
>> Your technical content is noted.
>> 73, Cecil http://www.qsl.net/w5dxp
>
> You're absolutely right Cecil.
>
> There is no reason for anyone, including me, to personally attack
> others or to rant and rave like a lunatic.
>
> It absolutely ruins techincal forums when people get too personal, no
> matter who does it. I think that is a major reason why this newsgroup
> fell from being very popular to barely used.
>
> 73 Tom
>

3188. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 16:15:08 UTC
From: Steven <thisjukeboxplays33rpm@yahoo.com>
Message-ID: <1148660108.327795.234690@38g2000cwa.googlegroups.com>
Source record: 58780
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap,ba.broadcast

Since I'm only here via crossposting, and not in your groups but for the surrepitious route, I will survive. The other tomcat in my neighborhood doesn't look like he will though...

3189. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 16:45:22 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <CgGdg.26$VL2.19@trnddc06>
Source record: 58781

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:127e7sf1v8kjee8@corp.supernews.com...
>
>
> Jerry Martes wrote:
>> "Buck" <not@this.time> wrote in message
>> news:g00e72lh8n694shm5fh3bnkva8ovu76koc@4ax.com...
>>> I have a wire dipole and an inverted Vee each cut to resonance on a
>>> desired frequency. I would like to add a reflector and/or a director
>>> (one at the time) to make each one a beam. Will adding the reflector
>>> and/or director change the resonant frequency, or just the impedance?
>>>
>>> Thanks
>>> Buck
>>> n4pgw
>>>
>>> --
>>> 73 for now
>>> Buck
>>> N4PGW
>>
>> Hi Buck
>>
>> Isnt Resonance defined as the frequency where the Impedance has *no*
>> reactance? Wouldnt that imply that the resonant frequency of the
>> antenna will always change if its impedance changes?
>> Can you *ever* change one without changing the other?
>
> You're correct about the definition of resonance.
>
> Buck's statement would have made more sense if it the last words were
> "just the resistance", and that's likely what he meant.
>
> Sure, you can change the impedance without changing the resonant
> frequency -- a transformer will do that, for example. At resonance, the
> resistance will simply be a different value.
>
> But to answer Buck's question, adding another element will almost
> certainly change both the resistance and reactance at the feedpoint, and
> therefore the resonant frequency.
>
> Roy Lewallen, W7EL

Hi Roy

I'm not qualified to enter into a theory discussion with you. But, I'd expect the introduction of a nearly half wave long comductor into the near vicinity of an antenna that has a purely resistive Terminal Impedance (Resonant) will change the Terminal Impedance of the new antenna which is the combination of the two.
I would have considered that transformer doesnt actually change the antenna's Terminal Impedance (Resonance) the transformer converts the antenna's impedance *at a new location*.
So, I'd expect the antenna's "resonance" to be defined by its "impedance".

I've considered that any R+/-jX can be Transformed to an impedance thats purely resistive. But, with antennas, thats a matching situation, while the antenna's terminal impedance remains reactive.

Jerry

3190. tower bolts - another question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 16:46:08 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <khGdg.5472$921.2445@newsread4.news.pas.earthlink.net>
Source record: 58782

What is the reason that Rohn uses two differant size bolts on the legs of the 25G tower ?

I am sure there is a good one or they would not have done that.

3191. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 17:05:02 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <5nojk3-c0p.ln1@mail.specsol.com>
Source record: 58783

Buck <not@this.time> wrote:
> I have a wire dipole and an inverted Vee each cut to resonance on a
> desired frequency. I would like to add a reflector and/or a director
> (one at the time) to make each one a beam. Will adding the reflector
> and/or director change the resonant frequency, or just the impedance?

> Thanks
> Buck
> n4pgw

> --
> 73 for now
> Buck
> N4PGW

Both most likely.

Download the demo eznec and model it; www.eznec.com.

After you've used it a few times, you'll want to buy the full version.

Nope, no connection with eznec. It has saved me a lot of time, effort,
and cut up wire though.

--
Jim Pennino

Remove .spam.sux to reply.

3192. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 17:23:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <p_WdnWtZe7jrp-rZRVnytw@bt.com>
Source record: 58784

I've lost the original question.

But there is a lossless transmission line 1 second long.
With a velocity factor of 1.0 it is 30,000 kilometres long.

Let Zo = 100 ohms.
Let applied volts = 100 VDC.
Let terminating resistance be 100 ohms.

Line Inductance = 10,000 Henrys.
Line Capacitance = 1 Farad.

Under steady state conditions -
Line current = 1 amp.
Energy stored in inductance = Sqr(I)*L/2 = 5000 Joules.

Volts across capacitance = 100 volts.
Energy stored in capacitance = SqrV)*C/2 = 5000 Joules.

Total energy stored = 10, 000 Joules = 10,000 watt.seconds.

Which has nothing whatsoever to do with all this nonsense about
reflections. Note that energy in inductance equals energy in
capacitance.

(I trust I have not made a mistake with the arithmetic.)

Reg.

"Cecil Moore" <mycall@arrl.net> wrote in message
news:94Edg.78926$F_3.75248@newssvr29.news.prodigy.net...
> "Buck" <not@this.time> wrote:
> > I can't tell you how many joules are in my coax, but, if you ask,
I
> > can tell you how many jewels are in my logbook. :)
>
> This is not aimed at people who don't care about such things.
> This is aimed at people who do care about such things especially
> those who are disseminating false technical information about
> such things.
>
> Some say that since there's 100 watts in and 100 watts out
> during steady-state, there's nothing left over for the reflected
> waves. They apparently forgot about the time immediately
> following power up when there was 100 watts in and less
> than 100 watts out.
> --

> 73, Cecil, W5DXP
>
>

3193. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 17:46:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kaHdg.78980$F_3.65214@newssvr29.news.prodigy.net>
Source record: 58785

Reg Edwards wrote:
> Let Zo = 100 ohms.

For what range of frequencies is the above true?
--
73, Cecil http://www.qsl.net/w5dxp

3194. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 17:58:20 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <c59e72pmnmtpmk1rgae9bd29o43fdp529c@4ax.com>
Source record: 58786

On Thu, 25 May 2006 21:38:45 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>Time-varying electric flux can indeed penetrate thin
>shields of finite conductivity, although the E/H ratio within the shield
>is very small.

>A gapless shield made of a perfect conductor of any thickness will
>completely block both electric and magnetic fields.

Hi Roy,

Given the vast gulf that separates these two observations above, and
the oblique reply in general that does not flow from your previous
question that I responded to.... It seems you are answering a topic I
have not entered into, or restating what I've already offered.

73's
Richard Clark, KB7QHC

3195. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 18:05:45 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <98adnTStr6XO2erZRVnyjA@bt.com>
Source record: 58787

> For what range of frequencies is the above true?
> --
> 73, Cecil http://www.qsl.net/w5dxp

==========
If you ask silly questions you can expect silly answers.

Are you looking for a reason to introduce your irrelevant reflections
again.

Reg.

3196. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 18:10:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127eh4knvgcfo33@corp.supernews.com>
Source record: 58788

Richard Clark wrote:
> On Thu, 25 May 2006 21:38:45 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>> Time-varying electric flux can indeed penetrate thin
>> shields of finite conductivity, although the E/H ratio within the shield
>> is very small.
>
>> A gapless shield made of a perfect conductor of any thickness will
>> completely block both electric and magnetic fields.
>
> Hi Roy,
>
> Given the vast gulf that separates these two observations above, and
> the oblique reply in general that does not flow from your previous
> question that I responded to.... It seems you are answering a topic I
> have not entered into, or restating what I've already offered.

Sorry, once again I miss your point. I maintain that time-varying electric and magnetic fields cannot exist independently, while you claim that they can. Tom and I asked for an example of a case where they do, and your response did not contain such an example.

Roy Lewallen, W7EL

3197. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 18:16:32 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127ehg13fkl8gcf@corp.supernews.com>
Source record: 58789

Reg Edwards wrote:
> I've lost the original question.
>
> But there is a lossless transmission line 1 second long.
> With a velocity factor of 1.0 it is 30,000 kilometres long.
>
> Let Zo = 100 ohms.
> Let applied volts = 100 VDC.
> Let terminating resistance be 100 ohms.
>
> Line Inductance = 10,000 Henrys.
> Line Capacitance = 1 Farad.
>
> Under steady state conditions -
> Line current = 1 amp.
> Energy stored in inductance = Sqr(I)*L/2 = 5000 Joules.
>
> Volts across capacitance = 100 volts.
> Energy stored in capacitance = SqrV)*C/2 = 5000 Joules.
>
> Total energy stored = 10, 000 Joules = 10,000 watt.seconds.
>
> Which has nothing whatsoever to do with all this nonsense about
> reflections. Note that energy in inductance equals energy in
> capacitance.

Yep, you don't have to mess with those pesky reflections when the line is terminated in a load equal to its characteristic impedance. Then the problem reduces to the trivial one you've posed. Simple problem, simple solution.

Roy Lewallen, W7EL

3198. Re: tower bolts - another question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 18:36:44 UTC
From: Dave <noone@nowhere.com>
Message-ID: <y9adnVoo1MlZ1-rZnZ2dnUVZ_vqdnZ2d@crocker.com>
Source record: 58790

good question, i've always thought it was to be sure the sections were fully mated... you couldn't put in the big bolts unless those holes lined up which prevented bolting up a partially mated joint.

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message news:khGdg.5472$921.2445@newsread4.news.pas.earthlink.net...
> What is the reason that Rohn uses two differant size bolts on the legs of
> the 25G tower ?
>
> I am sure there is a good one or they would not have done that.
>
>
>

3199. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 19:08:20 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-51DA13.11090826052006@netnews.att.net>
Source record: 58791

In article <WEEdg.382$UT2.248@newsread3.news.pas.earthlink.net>,
chuck <nospam@nospam.net> wrote:

\>
> Hello Gary,
>
> Although I'm not advocating "radials" or any other marine HF grounding
> approach, I am trying to understand the reasoning used by those who do
> advocate. I've tried to set up instrumentation that would allow
> comparative measurements of alternative "ground" properties for yachts,
> but the problems involved have been overwhelming. I think I understand
> why the world is not awash in empirical data in this area, especially
> compared to what is available for land-based verticals.
>
> > First, radials on a boat are not usually better than a good ground to
> > seawater.
>
> I think the word "radials" in this thread ought to be in quotes, since
> we're really not talking about conventional symmetrical radials from
> which radiation is substantially canceled. As you point out, the
> "radials" being discussed in this thread are simply a horizontal part of
> the radiating antenna and not really radials at all.

What you need to understand is just what kind of antenna are you trying
to describe, here as a MF/HF Marine Antenna? Are you thinking a Marconi,
Vertical Dipole, Offcenter Feed Marconi, or just what? The standard
MF/HF Marine Antenna, usually is considered a Marconi, and that is what
MOST both commercial and non-commercial MF/HF Marine antennas end up
being. So lets discuss Marine Marconi Antennas, and what makes good
ones and bad ones. Marconi Antennas are charactorized by 1/4 Lambda
Vertical Radiating Element, sitting in close proximity to a LOW
Impedance RF Ground System Perpendicular to the 1/4wave Vertical.
In the MF/HF Marine enviorment we add a Tuner, Auto or Manual so as
to be able to tune the Vertical to a 1/4 Wave Electrical Length and
Resonance on each frequency that the vessel maybe required to use in the
MF/HF Marine Frequency Bands, which cover 1.6Mhz to 25 Mhz in frequency.

Ok now lets look at what the vertical is. A Backstay, a Whip, a Loaded
Whip, a Loaded Whip with wire under it. It really doesn't matter, as
they all will be tuned to resonance, in either 1/4Wave, or 3/4Wave by
the tuner, against the impedance of whatever RF Ground is connected to
the tuner.

Hence the "Old RadioMans Addage", "If you have a Good RF Ground,
anything will radiate a good signal, even a wet noodle, but even the

best antenna will radiate poorly if it is working against a poor RF
Ground."

It is the RF Ground, that determines how WELL Marconi Antennas work.
Always has, and always will.
>
> Having said that, I would welcome learning your basis for the
> conclusion, and any info you can offer on how much better and in what
> way. Do you have a measurement of the HF "ground resistance" provided by
> seawater using a Dynaplate? Would your conclusion change for a vessel on
> the Chesapeake where salinity is quite low?

Ok, lets look at what RF Ground really means in MF/HF Marine Antenna
Systems. Put on your "Bruce's Special RF Glasses" and look at you
vessel, and lets see what the Marine enviorment really looks like to
RF. Lets take a look at the wood or plastic hulled vessel over there,
what DO WE SEE? Well, we see the vertical radiator, we see the salt
water, we see the metal on the boat that is grounded electrically
together, (bonded) we see the engine if it has one, we see the piping
and wiring that is all connected electrically, or bonded to the engine,
and nothing else. Now remember that for a Marconi Antenna, IT IS THE
RF GROUND that determines the efficency of the system. What makes a
good low impedance RF Gound? Large Flat area, perpendicular to the
Radiator, very electrically conductive. Sounds just like Salt Water,
doesn't it. Hmmmm, wonder why most really good systems use the WATER
as the RF Ground? Dahhhh. Again, remember that we are looking for a LOW
Impendance RF Ground that doesn't have much of a reactive component to
it, so that it will be good just about anywhere in the 1.6- 25Mhz range.

> > If you do use radials they need to be resonant which means they need
> > to be ¼ wavelength long at each frequency of operation or they need to
> > be tuned with a loading coil to make them resonant. The reason is that
> > if they are not resonant you will get little current into them. Your
> > antenna system will be unbalanced and being that the radials will
> > usually be closer to other wires etc. on the boat they will couple
> > into them before they couple to the sea. That will make the tuner coax
> > and control cables radiators as well, because of the higher impedance
> > of the radials.
>
> We don't seem to require that the backstay (or whatever vertical
> radiator we are using) be a physical 1/4 wavelength when we use a tuner.
> Why would we impose that requirement on the horizontal part of the
> radiating system? Isn't the famous 100 square feet of copper approach
> analytically equivalent to a nonresonant "radial"?
>
Ok, now lets look at what we have to use to build a good LOW Impedance RF
Ground with what we see using "Bruce's Special RF Glasses". One thing to
think about, Do we really want to make a direct connection to the WATER,
for our RF Ground, and if so do we want to make that Direst Connection
a DC CONNECTION? This question is where "Elctrolysis" comes into play,
and is beyound the scope of this lecture, so for convience lets assume

we want NO DC Path to the WATER. So how do we then couple the RF to the water effectivly? Well, we use a Capacator, and a capacitor is made up of "Two Plates seperated by an insulator. Our capacitor has one plate as the Salt Water, and the insulator is the Wood or Plastic Hull, and the other plate we need to build out of what we have aboard that we can see with our "Special Glasses". Now what are the factors that increase the capacative coupling in a capacator? Plate surface area, and plate speration, so we want as much surface area as we can get, as close to the Salt Water, as we can get. The higher the coupling, the lower the impedance of the RF Gound System, and the BETTER the antenna system wiull function.

> It is true that proximity of the horizontal radiator to other wiring can
> cause problems, and this may be an unequivocal disadvantage to the
> approach. Of course, an entire sailboat is in the reactive near-field
> region of the vertical radiating element regardless of the "ground" used
> and so the coupling issue is a matter of degree.
>

Not a real big issue here. Near field is basically unimportant in Marconi Antenna Systems, except for Near Field Grounded Verticals within a few feet of the Vertical Antenna.

>
> Chuck
> NT3G

End of Lecture Part 1 MF/HF Marine Radio Antenna System Design / Simplified

It's the Ground, dummy, the RF Ground........

Bruce in alaska an Old MF/HF Marine RadioMan from way back.....
--
add a <2> before @

3200. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 19:53:05 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <hLCdnYnFU98WwOrZnZ2dnUVZ8t2dnZ2d@bt.com>
Source record: 58793

"Roy Lewallen" wrote
>
> Yep, you don't have to mess with those pesky reflections when the
line
> is terminated in a load equal to its characteristic impedance. Then
the
> problem reduces to the trivial one you've posed. Simple problem,
simple
> solution.
==

As I say, I've lost the original question.

But if a steady-state answer is needed for the original question then the answer can be found by the same simple means without the unnecessary complication of reflections.

It's the Devil which makes Cecil pose such loaded questions.

Reg.

3201. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 19:55:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <83Jdg.41395$Lm5.284@newssvr12.news.prodigy.com>
Source record: 58792

Reg Edwards wrote:
> If you ask silly questions you can expect silly answers.
>
> Are you looking for a reason to introduce your irrelevant reflections
> again.

No, just trying to correlate your example to mine. In
your example, how long does it take from power up for
the load to accept 100 joules/second?
--
73, Cecil http://www.qsl.net/w5dxp

3202. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 19:57:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <z4Jdg.41396$Lm5.798@newssvr12.news.prodigy.com>
Source record: 58794

Roy Lewallen wrote:
> Yep, you don't have to mess with those pesky reflections when the line
> is terminated in a load equal to its characteristic impedance.

Which begs the question of what is to be done when "those
pesky reflections" exist in a mismatched system.
--
73, Cecil http://www.qsl.net/w5dxp

3203. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 20:06:31 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1148673991.300212.15870@i39g2000cwa.googlegroups.com>
Source record: 58795

Sigh. Yes, I believe you HAVE made a mistake in your calculations,
right at the beginning. C = tau/Z0 = 1/100 farad; L = tau*Z0 = 100
henries. But of course, the concept is perfect. 100V, 1A, 100W,
E^2*C/2 = 50 joules stored in the capacitance. I^2*L/2 = 50 joules
stored in the inductance. The two are equal only for a termination
equal to the line Z0 of course.

Too bad Cec doesn't understand that lossless line has unvarying Z0 as a
function of frequency from DC up, as long as TEM mode is supported.

Cheers,
Tom

Reg Edwards wrote:
> I've lost the original question.
>
> But there is a lossless transmission line 1 second long.
> With a velocity factor of 1.0 it is 30,000 kilometres long.
>
> Let Zo = 100 ohms.
> Let applied volts = 100 VDC.
> Let terminating resistance be 100 ohms.
>
> Line Inductance = 10,000 Henrys.
> Line Capacitance = 1 Farad.
>
> Under steady state conditions -
> Line current = 1 amp.
> Energy stored in inductance = Sqr(I)*L/2 = 5000 Joules.
>
> Volts across capacitance = 100 volts.
> Energy stored in capacitance = SqrV)*C/2 = 5000 Joules.
>
> Total energy stored = 10, 000 Joules = 10,000 watt.seconds.
>
> Which has nothing whatsoever to do with all this nonsense about
> reflections. Note that energy in inductance equals energy in
> capacitance.
>
> (I trust I have not made a mistake with the arithmetic.)
> ----
> Reg.
>
> "Cecil Moore" <mycall@arrl.net> wrote in message
> news:94Edg.78926$F_3.75248@newssvr29.news.prodigy.net...

> > "Buck" <not@this.time> wrote:
> > > I can't tell you how many joules are in my coax, but, if you ask,
> I
> > > can tell you how many jewels are in my logbook. :)
> >
> > This is not aimed at people who don't care about such things.
> > This is aimed at people who do care about such things especially
> > those who are disseminating false technical information about
> > such things.
> >
> > Some say that since there's 100 watts in and 100 watts out
> > during steady-state, there's nothing left over for the reflected
> > waves. They apparently forgot about the time immediately
> > following power up when there was 100 watts in and less
> > than 100 watts out.
> > --
> > 73, Cecil, W5DXP
> >
> >

3204. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 20:10:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <YgJdg.41398$Lm5.30419@newssvr12.news.prodigy.com>
Source record: 58796

Reg Edwards wrote:
> It's the Devil which makes Cecil pose such loaded questions.

It's only loaded with the conservation of energy
principle, Reg. Here's a simple example. The SG-CR
is a 50 ohm signal generator equipped with a
circulator resistor to dissipate all reflected
power incident upon the source.

200W SG-CR---one second long lossless 50 ohm line---291.42 ohm

SWR is 5.83:1 rho^2 = 0.5 Steady-state forward power
is 200 watts. Steady-state reflected power is 100 watts.

The question is: After steady-state has been reached, how
many joules of energy have been generated but have not been
dissipated in the load resistor or circulator resistor?
--
73, Cecil http://www.qsl.net/w5dxp

3205. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 20:16:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zmJdg.41401$Lm5.33949@newssvr12.news.prodigy.com>
Source record: 58797

K7ITM wrote:

> Sigh. Yes, I believe you HAVE made a mistake in your calculations,
> right at the beginning. C = tau/Z0 = 1/100 farad; L = tau*Z0 = 100
> henries. But of course, the concept is perfect. 100V, 1A, 100W,
> E^2*C/2 = 50 joules stored in the capacitance. I^2*L/2 = 50 joules
> stored in the inductance. The two are equal only for a termination
> equal to the line Z0 of course.
>
> Too bad Cec doesn't understand that lossless line has unvarying Z0 as a
> function of frequency from DC up, as long as TEM mode is supported.

I do understand that. That's why Reg's 10,000 joules don't make
any sense to me. Now if the Z0 was one ohm at DC, it would make
sense for 100 volts to be able to supply 10,000 joules in one
second.
--
73, Cecil http://www.qsl.net/w5dxp

3206. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 20:42:28 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1148676148.656605.300060@g10g2000cwb.googlegroups.com>
Source record: 58798

Reg Edwards wrote:
> I've lost the original question.
...

Actually, it was "200 watts forward, 100 watts reflected" -- but it works the same way: 100 ohm line, 1 second long: source is DC 200*sqrt(2) volts in series with 100 ohms. Load is such that it absorbs 100 watts from that source: 100*(3 +/- sqrt(8)) ohms. About 17.16 ohms works OK. Then the line voltage is 41.42V and the energy stored in the 1/100F line capacitance is 8.579 joules, and the line current is 2.414A and the energy stored in the 100H line inductance is 291.421 joules. Total energy stored is 300 joules.

It's somewhat comforting that it's just as you'd expect from power delivered versus time. It's an illustration of something I believe Ian White was trying to get across in another thread: there are commonly multiple ways to analyze a problem, and if they agree, you MAY have the right answer. If they disagree, you have at least as many wrong answers as the number of disagreements (or perhaps the disagreements only seem to be disagreements).

Now, I have no idea who it is that might be saying that there's no energy stored in the fields in a line, so I really don't know what the to-do is all about. Maybe it's just another misinterpretation of what people have actually said...perhaps about lines that are very far indeed from being lossless.

Cheers,
Tom

3207. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 21:03:30 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <1PSdnZTS3Iee8-rZnZ2dnUVZ8qWdnZ2d@bt.com>
Source record: 58799

"K7ITM" <k7itm@msn.com> wrote in message
news:1148673991.300212.15870@i39g2000cwa.googlegroups.com...
> Sigh. Yes, I believe you HAVE made a mistake in your calculations,
> right at the beginning. C = tau/Z0 = 1/100 farad; L = tau*Z0 = 100
> henries. But of course, the concept is perfect. 100V, 1A, 100W,
> E^2*C/2 = 50 joules stored in the capacitance. I^2*L/2 = 50 joules
> stored in the inductance. The two are equal only for a termination
> equal to the line Z0 of course.
>
==========
Tom,

Furthermore, the energy dissipated each second in the 100-ohm
termination (100 watts) is equal to the energy stored in the line.

Damned decimal points. I just KNEW I had made a mistake somewhere
along the line. Thank you.

By the way - what is tau ?

Reg.

3208. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 21:14:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <%cKdg.267$VE1.248@newssvr14.news.prodigy.com>
Source record: 58800

K7ITM wrote:
> Actually, it was "200 watts forward, 100 watts reflected" -- but it
> works the same way: 100 ohm line, 1 second long: source is DC
> 200*sqrt(2) volts in series with 100 ohms. Load is such that it
> absorbs 100 watts from that source: 100*(3 +/- sqrt(8)) ohms. About
> 17.16 ohms works OK. Then the line voltage is 41.42V and the energy
> stored in the 1/100F line capacitance is 8.579 joules, and the line
> current is 2.414A and the energy stored in the 100H line inductance is
> 291.421 joules. Total energy stored is 300 joules.

As can be seen from http://www.qsl.net/w5dxp/1secsgcr.gif

Do you think it's just a coincidence that 200 watts of forward
power in a one second long line would require 200 joules and
100 watts of reflected power in a one second long line would
require 100 joules for a total of 300 joules?

> Now, I have no idea who it is that might be saying that there's no
> energy stored in the fields in a line, so I really don't know what the
> to-do is all about.

Please read what W7EL says about forward and reflected power
in his "food for thought" writings. In particular: "Some inventive
people have supposed they can separate forward and reverse power with
a circulator. That really sounds attractive, particularly with an open
or short circuited load. In that condition, the forward and reverse
powers are each 100 watts, yet the transmitter (or the transmitter
voltage source) doesn't have to produce any power at all."

What W7EL doesn't seem to realize is that the source produced the
power in the forward and reverse power waves while the feedline
was charging up during the transient period before the reverse power
waves reached the source so there is bona fide energy in those waves.
He also says there is no model for handling such yet one exists in
detail in the magazine article on my web page.
--
73, Cecil http://www.qsl.net/w5dxp

3209. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 21:17:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <JfKdg.268$VE1.120@newssvr14.news.prodigy.com>
Source record: 58801

Reg Edwards wrote:
> Damned decimal points. I just KNEW I had made a mistake somewhere
> along the line.

Now do you see why my question wasn't simple or loaded?
I just wondered how you shoved 10,000 joules down a
Z0=100 ohm feedline in one second using a fixed 100
volt source.
--
73, Cecil http://www.qsl.net/w5dxp

3210. Loose antenna base?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 21:41:29 UTC
From: Ken C <cprstn54@nospam.att.net>
Message-ID: <hate72hkg4sjnp0h8g6t9ofcjialjf4gti@4ax.com>
Source record: 58802

I am using screw-on antennas on my Ramsey DF rig.

The threaded (female) barrels keep coming loose in the antenna tube --
where they appear to be locked by a groove and four tiny punches in
the tube.

I have tried solder, but it does not adhere.

Any other suggestions?

Ken KC2JDY

3211. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 21:43:47 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <3FKdg.56$Zb5.26@fe08.lga>
Source record: 58803

"Jerry Martes" <j.jmartes@verizon.net> wrote
> So, I'd expect the antenna's "resonance" to be defined by its
> "impedance".
>

Antenna resonance is defined by its element's electrical properties,
"caused" by its physical properties/dimensions.
In case of 3 el "conversion" from Inv Vee, you have to picture elements as a
tuned circuits. If they are spaced within a fractions of a wavelength, they
have mutual impedance, affecting each other. As you start adding elements,
they add capacitance to the system and lower the overall resonant frequency
and impedance. Single Dipole is around 75 ohms, 3 el. Yagi around 30 ohms.
The more elements you add, the more sensitive the design is and requires
more prunning for optimum performance. So just slapping elements to Inv Vee
dipole will not produce optimized antenna. EZNEC, 4NEC2, MMANA are an
excellent tools to demonstrate that and to optimize the design, give you
dimensions and impedance and understanding behavior of antennas, give
current distribution in elements, plots of impedance, gain and other
parameters.

--
Yuri Blanarovich, K3BU, VE3BMV

3212. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 21:49:04 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <gcr$LBVQf3dEFAm3@ifwtech.co.uk>
Source record: 58804

K7ITM wrote:
>
>It's somewhat comforting that it's just as you'd expect from power
>delivered versus time. It's an illustration of something I believe Ian
>White was trying to get across in another thread: there are commonly
>multiple ways to analyze a problem, and if they agree, you MAY have the
>right answer. If they disagree, you have at least as many wrong
>answers as the number of disagreements (or perhaps the disagreements
>only seem to be disagreements).
>

What I said was that there are commonly multiple methods to analyse the same problem, but that all correct methods MUST agree, because they are only different views of the same physical reality.

(I think that amounts to the same as you said above, Tom.)

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3213. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 22:18:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Z8Ldg.358$VE1.351@newssvr14.news.prodigy.com>
Source record: 58805

Ian White GM3SEK wrote:
> What I said was that there are commonly multiple methods to analyse the
> same problem, but that all correct methods MUST agree, because they are
> only different views of the same physical reality.

That attitude is certainly an improvement from the earlier
labeling of an alternate valid analysis as "Gobbledygook".
--
73, Cecil http://www.qsl.net/w5dxp

3214. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 22:26:55 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e57vbgehk1@avnika.corp.mot.com>
Source record: 58806

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:J9adg.27540$QP4.14620@fed1read12...
>
> "Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
> news:e52gqptuu1@avnika.corp.mot.com...
>
>
> < snip >
>
> > Another concern (though I have no experience with roofs, just autos) is
> the
> > intermitent contact (as opposed to a rectifying junction, as Richard
> points
> > out) that is possible. If there are joints that can make and break, say
> in
> > the wind, you may have noise generated. Chain-link fences would be
> > susceptable to this as well. Wether or not it produces noise in your
> > receiver, I would think, is rather unlikely, unless you were somewhere
> near
> > a broadcast station or another ham for reasons described next.
>
> It's mostly a problem if you are running two or more rigs at the same
> time. Your 2M packet rig could interfere with your 2M ragchew.

Yes, the "offending" transmitter needs to be in close proximity so that

1- the offending junction(s) are sufficiently illuminated by it to produce
strong enough sidebands to be a problem in the offended receiver.
2- The offended receiver has to be close enough to be offended by the levels
involved.
>
> The Navy, for whom I work, bonds (or isolates) everything ...
> Every spark, no matter how small, is an RF generator.

It isn't necessarily a spark, in fact probably infrequently sparks unless
you're dealing with higher power. It goes like this.

Both sides of the offending junction are picking up RF. They are
conductors, so there are RF currents flowing. When there are RF currents
flowing you have radiation. As the junction opens and closes, the RF
currents change. When the junction is making contact, current can flow -
when disconnected, current can not flow (pretty much; let's not get into the
capacitance thing). The changes in current with a noisy contact will mimic
the "noise" of that contact. The radiation will therefore mimic that noise
also. That noisy radiation will sum with the original, desired radiation.

This, in effect, modulates the radiated signal after it leaves the transmitter. If it is sufficiently high level and the receiver able to pick it up, you have a problem..

Chains
> are awful. We hate chains.

Perhaps you know, but during the Apollo space shots, there were NASA ship at sea which had really high power HF transmitters. They would interfere with the radars. It turned out that the deck chains were the offenders. Whether or not there were sparks, it shows just how wide band the noise can be.

Gee... What's the resonant frequency for a deck chain link?

73, Steve, K9DCI (USN, but never on a real ship untill after I got out)

3215. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 22:46:15 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <k11f72ppon49j16ha3b0t2ctrg5fij5ql3@4ax.com>
Source record: 58807

On Fri, 26 May 2006 11:10:28 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

> while you claim

Hi Roy,

The courteous thing would be to quote me directly rather than
paraphrase me obliquely. Respond to the posting you find
objectionable.

73's
Richard Clark, KB7QHC

3216. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 22:50:07 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1148683807.367275.135300@y43g2000cwc.googlegroups.com>
Source record: 58808

Sorry, Reg...thought tau would be obvious from the context. It's the, um, "time-length" of the line; units would commonly be seconds--one second in the case at hand. Or, sqrt(L*C) = sqrt(volt-seconds/amp * amp-seconds/volt)

To heck with the red wine...think I'll have another shot or two of the Scapa single-malt this evening.

Cheers,
Tom

Reg Edwards wrote:
> "K7ITM" <k7itm@msn.com> wrote in message
> news:1148673991.300212.15870@i39g2000cwa.googlegroups.com...
> > Sigh. Yes, I believe you HAVE made a mistake in your calculations,
> > right at the beginning. C = tau/Z0 = 1/100 farad; L = tau*Z0 = 100
> > henries. But of course, the concept is perfect. 100V, 1A, 100W,
> > E^2*C/2 = 50 joules stored in the capacitance. I^2*L/2 = 50 joules
> > stored in the inductance. The two are equal only for a termination
> > equal to the line Z0 of course.
> >
> ================================
> Tom,
>
> Furthermore, the energy dissipated each second in the 100-ohm
> termination (100 watts) is equal to the energy stored in the line.
>
> Damned decimal points. I just KNEW I had made a mistake somewhere
> along the line. Thank you.
>
> By the way - what is tau ?
> ----
> Reg.

3217. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 23:08:41 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <qAB9sza5p4dEFAXI@ifwtech.co.uk>
Source record: 58809

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> What I said was that there are commonly multiple methods to analyse
>>the same problem, but that all correct methods MUST agree, because
>>they are only different views of the same physical reality.
>
>That attitude is certainly an improvement from the earlier
>labeling of an alternate valid analysis as "Gobbledygook".

"Improvement" implies a change; but I have always held the same view as quoted above.

It is one of the main reasons why I remain sceptical about your theories. Where they ought to be agreeing with other analyses of the same problem, they don't.

Also, "gobbledygook" is not a word I use... it's one of yours, I believe.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3218. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-26 23:40:46 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127f4g0kugoq117@corp.supernews.com>
Source record: 58810

Richard Clark wrote:
> On Fri, 26 May 2006 11:10:28 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
>> while you claim
>
> Hi Roy,
>
> The courteous thing would be to quote me directly rather than
> paraphrase me obliquely. Respond to the posting you find
> objectionable.

I did. I responded to the lengthy posting you reposted. Your response to that was, unfortunately, incomprehensible to me, and not apparently related to the topic in question. But here's what you've said, and with which I disagree -- that is, if I understand what you've said; I often don't. Alas, I was too often in the back room soldering things together when I should have been doing my English homework. (And see what it's done: not only poor comprehensive skills but split infinitives to boot.)

On 24 May 2006 17:31:59 -0700, w8ji@akorn.net wrote:

[Tom wrote:]
>> >> This is part and parcel to the world of isolated and shielded
>> >> circuits. The electrostatic shields are as effective as they are
>> >> complete in their coverage. Their contribution is measured in mutual
>> >> capacitance between the two points being isolated.
> >
> >I don't have that reference and so cannot see that shield, but the only
> >thing the shield can do is reduce field impedance by changing the ratio
> >of electric to magnetic fields. In order to take either one to zero the
> >other must also be at zero.

[You responded:]
Hi Tom,

There are too many contra-examples too sustain your point. What you are talking about is radiation, this does not account for common induction that occurs on the very short scales I've offered.

73's
Richard Clark, KB7QHC

And:

On Wed, 24 May 2006 12:11:52 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

> >Richard Clark wrote:
>> > > . . .
>> >> Richard's applications and illustrations do not push this
boundary. In
>> >> fact, Ramo et. al distinctly offer the case of "electrostatic
>> >> shielding" and clearly support the separation of magnetic and
electric
>> >> flux (fields). . .
> >

[I responded:]
> >Can you direct me to where in the text they do so? All I've found is a
> >short section (5.28) on "Electrostatic Shielding" where they explain
> >that introducing a grounded conductor near two others will reduce the
> >capacitive coupling between them. Obviously this will alter the local
> >E/H ratio, but in no way does it allow an E or H field to exist
> >independently, even locally, let alone at any distance.

[To which you replied with the lengthy post which you were kind enough
to post a second time. Hopefully a third time won't be necessary.]

Am I mistaken, then? Were you agreeing all along that a time-varying
electric or magnetic field can't exist independently and therefore there
can't be completely inductive (H field) or capacitive (E field) coupling?

Roy Lewallen, W7EL

3219. I was going through about ten years of ham catalogs, and I noticed a disturbing trend.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 00:20:26 UTC
From: Morse or Re-Morse <see@double.you>
Message-ID: <eXMdg.13$eB3.11@newsread3.news.pas.earthlink.net>
Source record: 58811
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

There's an increase in recent years of ham gear Retailers offering an expanding amount of citizen band radios and related products.

So Retailers have seen the changes in the type of people that are making up and will be making up the US ham population, and have modified their inventories and marketing to stay in step with it.

Gotta keep selling them radio's, Ten-Four?

Morse

3220. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 01:12:54 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4477a796$0$1008$39cecf19@news.twtelecom.net>
Source record: 58812
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Radio Buff wrote:

> You'll open your QST magazine to the Silent key section and Ham Radio will
> be listed.
>
> sc

GOAT

3221. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 01:31:31 UTC
From: Bob Schreibmaier <k3ph@ptd.net>
Message-ID: <13KdnWhtQ4VpNurZUSdV9g@ptd.net>
Source record: 58813
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

In article <5erdg.5219$921.1628@newsread4.news.pas.earthlink.net>,
email@no.spam says...
>
>
>You'll open your QST magazine to the Silent key section and Ham Radio will
>be listed.

The Armenian judges gave this a 9.8 on the Olympic Troll-O-Meter,
but they were overruled by the umpires in instant replay, who
awarded it a 2.6.

The Armenian judges lodged a formal protest!

It was sufficiently trollish, of course, but way too obvious.
It was poorly written, poorly executed, and was so incredibly
lame as to lack the true drawing power of a really masterful
troll. Maybe as high as a 3.1 for the intense stupidity of the
premise, but a 9.8? Never! The Armenian judges tear their
hair out, throw their balalaikas down in dismay, and perform
the traditional Armenian Dismay Chant! They demand a recount!

0 2 4 6 8 10
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\
\
TROLL-O-METER

--
+---+
| Bob Schreibmaier K3PH | E-mail: k3ph@ptd.net |
| Kresgeville, PA 18333 | http://www.dxis.org |
+---+

3222. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 01:46:23 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127fbrgkk8uma1f@corp.supernews.com>
Source record: 58814

I put this aside until I could do a little modeling. A lot of postings have been made in the interim, but I don't see too much in the way of answers. I'll try to answer some of your questions.

Will wrote:
> I want to set up a hf antenna for my sailboat.
>
> I have read various guides from Icom etc.
>
> They suggest running copper foil to a Dynaplate and use sea water as
> the ground. How can this work when the Dynaplate is below sea water?

I don't know anything about Dynaplates, but if it's on the hull, it's very near the surface of the water. Any current it conducts will flow along the top of the water displaced by the hull. If, on the other hand, it's really under any depth of water at all, it'll be invisible to RF and might as well not be there.

> Is sea water equal to copper wire radials as a RF ground system?

Yes.

> Does sea water make a good enough ground without radials?

Yes. A foot-long wire "ground rod" below the antenna provides a nearly lossless ground connection at HF.

> How can a piece of copper metal about 1 ft square equal several
> radials laying on the boats deck?

Radial wires are used for land based systems because of the poor conductivity of soil. Radial wires reduce the resistance of the path current takes going to and from the antenna base. Salt water is a good conductor and doesn't need -- and won't benefit from -- radial wires.

> Why do i have to use copper foil when most other people suggest using
> ordinary copper wire?

You don't. And won't copper corrode rapidly in salt water?

> Over seawater what would be the best number of radials to use
> considering that maximum length i can run is 40 ft. I am planning to use
> a backstay antenna with a SGC 230 Tuner.

None. A simple wire down into the water is adequate. Or use a small plate very near the surface if you prefer.

Roy Lewallen, W7EL

3223. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 01:56:49 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127fcf3tiuhah83@corp.supernews.com>
Source record: 58815

chuck wrote:
>
> A few additional questions along these lines for the group (with some
> paraphrasing):
>
> 1. What is the skin depth in salt water at 14 MHz?

About 2.4 inches.

How would this affect
> a ground plate at four feet below the surface?

A ground plate at that depth would be invisible to RF. It might as well not be there. This is, of course, assuming it actually has 4 feet of water above it and not a boat's hull and air.

> 2. What would the ohmic losses be over a one square foot by 33 foot path
> through salt water?

Let's see, salt water conductivity is about 5 S/m, which is 1.524 S/ft. So the *DC* resistance of that piece of sea water would be 1.524 * 33 / (1 * 1) ~ 50 ohms. But the RF resistivity would be much greater because only the outer few inches would carry any current.

> 3. How well would the ground plate work on fresh water bodies, such as
> much of the Chesapeake, the Great Lakes, and various rivers and
> tributaries often used by cruisers? How would it compare with radials
> over fresh water?

Fresh water is quite a different story. The skin depth in *pure* fresh water at 14 MHz is 156 feet. But "fresh water" is far from pure. Unfortunately I don't have any ready data on "typical" "fresh water". So the skin depth is somewhere between 2.4 inches and 156 feet. Not much help. If the water is pretty pure, radials near the surface would be an improvement over a ground plate.

> 4. Can anyone cite a published and reproducible study in which the RF
> losses through salt water were measured and compared with losses through
> one or more copper wire "radials" on or below deck of a typical cruising
> vessel? Or is there a published theoretical analysis of this comparison?
> Looking for more than the casual, anecdotal stuff.

No. An NEC-4 model shows a one-foot wire to provide a nearly perfect ground in salt water. But that falls far short of your requirement.

> 5. Will a four foot length of wire dropped into saltwater provide a
> "good" RF "ground" and on what is the answer based?

Yes, but one foot does just as well -- any current on the wire will drop
to essentially zero within the first foot, so the remainder might as
well not be there. This is from an NEC-4 model.
>
> I need enlightenment!

So do we all.

Roy Lewallen, W7EL

3224. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 02:20:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <u58f729ld5pt2tgsrkp0ah7bqaag9053hp@4ax.com>
Source record: 58816

On Fri, 26 May 2006 16:40:46 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

Hi Roy,

>But here's what you've said, and with which I disagree

What appears to be the only content you disagree with:

>There are too many contra-examples too sustain your point. What you
>are talking about is radiation, this does not account for common
>induction that occurs on the very short scales I've offered.

>And:

> >> >> Richard's applications and illustrations do not push this boundary. In
> >> >> fact, Ramo et. al distinctly offer the case of "electrostatic
> >> >> shielding" and clearly support the separation of magnetic and electric
> >> >> flux (fields). . .

We never actually get to what it is that is disagreeable do we? This
is merely the window dressing for backing into an oblique translation:

>Am I mistaken, then?

Who can tell but you? It is, after all, your statement that you
disagree. We can only guess.

>Were you agreeing all along that a time-varying
>electric or magnetic field can't exist independently and therefore there
>can't be completely inductive (H field) or capacitive (E field) coupling?
A 30 word speech dressed as a question is not clear writting. :-)

Agreeing all along?
No, I am never in the habit of agreeing all along.

A time-varying electric or magnetic field can't exist
independently?
Fields in free space are intimately joined and inseparable.

There can't be completely inductive (H field) or capacitive (E
field) coupling?
If I am not mistaken, this is the same question again. Do you in fact
see any difference between the two that merits the boolean AND?

Should I anticipate other philosophical questions such as
Are you agreeing all along about conductivity and Ohm's law?
Let me shock you and say NO so as to not deflate others' anticipation.
I bet they will know how to pin me down. ;-)

73's
Richard Clark, KB7QHC

3225. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 02:30:30 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <aROdg.792$As2.384@trnddc02>
Source record: 58817

"Yuri Blanarovich" <K3BU@optonline.net> wrote in message
news:3FKdg.56$Zb5.26@fe08.lga...
>
> "Jerry Martes" <j.jmartes@verizon.net> wrote
>> So, I'd expect the antenna's "resonance" to be defined by its
>> "impedance".
>>
>
>
> Antenna resonance is defined by its element's electrical properties,
> "caused" by its physical properties/dimensions.
> In case of 3 el "conversion" from Inv Vee, you have to picture elements as
> a tuned circuits. If they are spaced within a fractions of a wavelength,
> they have mutual impedance, affecting each other. As you start adding
> elements, they add capacitance to the system and lower the overall
> resonant frequency and impedance. Single Dipole is around 75 ohms, 3 el.
> Yagi around 30 ohms.
> The more elements you add, the more sensitive the design is and requires
> more prunning for optimum performance. So just slapping elements to Inv
> Vee dipole will not produce optimized antenna. EZNEC, 4NEC2, MMANA are an
> excellent tools to demonstrate that and to optimize the design, give you
> dimensions and impedance and understanding behavior of antennas, give
> current distribution in elements, plots of impedance, gain and other
> parameters.
>
> --
> Yuri Blanarovich, K3BU, VE3BMV

Hi Yuri

I thought my statement that an antenna's Resonance is defined by that
antenna having an impedance thats purely resistive, was an accurate
statement. Is than *not* accurate?? What other "electrical properties"
define an antenna's resonance??

Jerry

3226. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 02:36:41 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dnef725c55451hnf1jaij1lrasqq193bo6@4ax.com>
Source record: 58818

On 26 May 2006 15:50:07 -0700, "K7ITM" <k7itm@msn.com> wrote:

>To heck with the red wine...think I'll have another shot or two of the
>Scapa single-malt this evening.

Hi Tom,

Is the Scapa flowing?

73's
Richard Clark, KB7QHC

3227. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 02:50:30 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4477BE76.6030108@fuse.net>
Source record: 58819
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Bob Schreibmaier wrote:
> In article <5erdg.5219$921.1628@newsread4.news.pas.earthlink.net>,
> email@no.spam says...
>
>>
>>You'll open your QST magazine to the Silent key section and Ham Radio will
>>be listed.
>
>
> The Armenian judges gave this a 9.8 on the Olympic Troll-O-Meter,
> but they were overruled by the umpires in instant replay, who
> awarded it a 2.6.
>
> The Armenian judges lodged a formal protest!
>
> It was sufficiently trollish, of course, but way too obvious.
> It was poorly written, poorly executed, and was so incredibly
> lame as to lack the true drawing power of a really masterful
> troll. Maybe as high as a 3.1 for the intense stupidity of the
> premise, but a 9.8? Never! The Armenian judges tear their
> hair out, throw their balalaikas down in dismay, and perform
> the traditional Armenian Dismay Chant! They demand a recount!
>
> 0 2 4 6 8 10
> \
> \
> \
> \
> \
> TROLL-O-METER
>
Mount Ararat sucks!

(A troll for the Armenian judges)

3228. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 03:12:33 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127fgt1qp73oo67@corp.supernews.com>
Source record: 58820

Jerry Martes wrote:
>
> I thought my statement that an antenna's Resonance is defined by that
> antenna having an impedance thats purely resistive, was an accurate
> statement.
> . . .

It's accurate and complete.

Roy Lewallen, W7EL

3229. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 03:18:19 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <5yPdg.315$Zb5.90@fe08.lga>
Source record: 58821

I will second that!
Yuri

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:127fgt1qp73oo67@corp.supernews.com...
> Jerry Martes wrote:
>>
>> I thought my statement that an antenna's Resonance is defined by that
>> antenna having an impedance thats purely resistive, was an accurate
>> statement.
> > . . .
>
> It's accurate and complete.
>
> Roy Lewallen, W7EL

3230. Re: One of these days. Very Soon now.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 03:28:35 UTC
From: Roger <Nuts@nutterzwog.net>
Message-ID: <156g2.va1.17.1@news.alt.net>
Source record: 58822
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"Bob Schreibmaier" <k3ph@ptd.net> wrote nothing
of any importance in any message
////////FLUSHED//////////

ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ

3231. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 03:35:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <dOPdg.34332$4L1.17752@newssvr11.news.prodigy.com>
Source record: 58823

Ian White GM3SEK wrote:
> It is one of the main reasons why I remain sceptical about your
> theories. Where they ought to be agreeing with other analyses of the
> same problem, they don't.

No chance the "other analyses" could be wrong? Could you
please give me an example of what you are talking about?

> Also, "gobbledygook" is not a word I use... it's one of yours, I believe.

I didn't say you used it, Ian, but you didn't object when it
was used.
--
73, Cecil http://www.qsl.net/w5dxp

3232. Re: Loose antenna base?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 03:37:42 UTC
From: TimPerry <timperry@noaspamadelphia.net>
Message-ID: <bc6dnYPZztsaVOrZRVn-jA@adelphia.com>
Source record: 58824

Ken C wrote:
> I am using screw-on antennas on my Ramsey DF rig.
>
> The threaded (female) barrels keep coming loose in the antenna tube --
> where they appear to be locked by a groove and four tiny punches in
> the tube.
>
> I have tried solder, but it does not adhere.
>
> Any other suggestions?
>
> Ken KC2JDY

red loctite

http://www.loctite.com/int_henkel/loctite_us/index.cfm

3233. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 04:12:01 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <lkQdg.27874$QP4.7530@fed1read12>
Source record: 58825

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e57vbgehk1@avnika.corp.mot.com...

Snip >

The radiation will therefore mimic that noise
> also. That noisy radiation will sum with the original, desired radiation.
> This, in effect, modulates the radiated signal after it leaves the
> transmitter. If it is sufficiently high level and the receiver able to
pick
> it up, you have a problem..

Correct

> Chains
> > are awful. We hate chains.

> Gee... What's the resonant frequency for a deck chain link?

UHF or SHF, but it doesn't much matter. The training aids for the EMI
Awareness course I used to teach at San Diego Naval Station (command =
FTSCPAC, if you know that outfit) included a funky little plywood ship,
within which were two milliwatt-level HF "transmitters" and a receiver.

I/we demonstrated with two links of chain, connected back-to back to make a
continuous current path, that we could generate noise by making and breaking
the connection where the links touched. It was invariably a convincing demo
for the students. The effect only extended out a few inches from the deck
of our plywood model, but scale it up, and you are smack-dab in the real
world.

73,
John, KD6VKW
NARTE-certified EMC Engineer (retired)
USN: 1962 -1982, CTMC, EWCS (Ret.)

3234. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 04:18:13 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127fko61ml12745@corp.supernews.com>
Source record: 58676

Wow, you got me there. I'm so used to communicating with engineers that I was actually expecting a direct and coherent response. Silly me.

There was one clear and unambiguous statement in your response, though:

> Fields in free space are intimately joined and inseparable.

So we don't disagree after all. I see now that in your previous postings "contra-examples" really means "supporting examples", and "Ramo et. al . . . clearly support the separation of magnetic and electric flux (fields)" really means they reject it. You can really do amazing things with the English language. I'm in awe.

Roy Lewallen, W7EL

Richard Clark wrote:
> On Fri, 26 May 2006 16:40:46 -0700, Roy Lewallen <w7el@eznec.com>
> wrote:
>
> Hi Roy,
>
>> But here's what you've said, and with which I disagree
>
> What appears to be the only content you disagree with:
>
>> There are too many contra-examples too sustain your point. What you
>> are talking about is radiation, this does not account for common
>> induction that occurs on the very short scales I've offered.
>
>> And:
>
>>>>>> Richard's applications and illustrations do not push this boundary. In
>>>>>> fact, Ramo et. al distinctly offer the case of "electrostatic
>>>>>> shielding" and clearly support the separation of magnetic and electric
>>>>>> flux (fields). . .
>
> We never actually get to what it is that is disagreeable do we? This
> is merely the window dressing for backing into an oblique translation:
>
>> Am I mistaken, then?
>
> Who can tell but you? It is, after all, your statement that you
> disagree. We can only guess.
>
>> Were you agreeing all along that a time-varying
>> electric or magnetic field can't exist independently and therefore there

>> can't be completely inductive (H field) or capacitive (E field) coupling?
> A 30 word speech dressed as a question is not clear writting. :-)
>
> Agreeing all along?
> No, I am never in the habit of agreeing all along.
>
> A time-varying electric or magnetic field can't exist
> independently?
> Fields in free space are intimately joined and inseparable.
>
> There can't be completely inductive (H field) or capacitive (E
> field) coupling?
> If I am not mistaken, this is the same question again. Do you in fact
> see any difference between the two that merits the boolean AND?
>
> Should I anticipate other philosophical questions such as
> Are you agreeing all along about conductivity and Ohm's law?
> Let me shock you and say NO so as to not deflate others' anticipation.
> I bet they will know how to pin me down. ;-)
>
> 73's
> Richard Clark, KB7QHC

3235. Re: I was going through about ten years of ham catalogs, and I noticed a disturbing trend.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 04:35:23 UTC
From: "M." <notvalid@email.add>
Message-ID: <iGQdg.1$pP.3192@sooner.brightok.net>
Source record: 58677
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Either that, or they noticed that the anal-retentive old fart CW losers
aren't buying new equipment so they're marketing to somebody who will.

m

"Morse or Re-Morse" <see@double.you> wrote in message
news:eXMdg.13$eB3.11@newsread3.news.pas.earthlink.net...
> There's an increase in recent years of ham gear Retailers offering an
> expanding amount of citizen band radios and related products.
>
> So Retailers have seen the changes in the type of people that are
> making up and will be making up the US ham population, and have modified
> their inventories and marketing to stay in step with it.
>
> Gotta keep selling them radio's, Ten-Four?
>
>
> Morse

3236. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 04:55:46 UTC
From: Buck <not@this.time>
Message-ID: <npmf72tg6a2ii0gfb9ao4ujp9j8u2u1iqc@4ax.com>
Source record: 58678

On Fri, 26 May 2006 09:21:59 -0400, Buck <not@this.time> wrote:

>I have a wire dipole and an inverted Vee each cut to resonance on a
>desired frequency. I would like to add a reflector and/or a director
>(one at the time) to make each one a beam. Will adding the reflector
>and/or director change the resonant frequency, or just the impedance?
>
>Thanks
>Buck
>n4pgw

Maybe I used the wrong word, 'resonance', but I was referring to the
lowest SWR match, which I would assume for the example to be less than
1.5:1 on a given frequency.

To be more specific, assume a 20 meter inverted vee trimmed to minimum
SWR at 14.225. Would adding the reflector, and then the director
(assuming I match the coax tot he antenna impedance) raise or lower
the tuned frequency of the antenna?

--
73 for now
Buck
N4PGW

3237. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 05:54:24 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1148709264.181958.179640@g10g2000cwb.googlegroups.com>
Source record: 58679

Well, after communing this evening with some hard cherry wood from my back yard that's going to become part of a loom, I decided to go with the Ledaig instead.

Cheers,
Tom

3238. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 05:58:12 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1148709492.594246.194880@g10g2000cwb.googlegroups.com>
Source record: 58680

Ian wrote, "(I think that amounts to the same as you said above, Tom.)"

Well, I hope so...I'd certainly not intentionally misstate it. I do
think your way of putting it is a bit more positive than mine, though.

Cheers,
Tom

3239. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 06:12:21 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127fre6cd6s7c4f@corp.supernews.com>
Source record: 58681

Roy Lewallen wrote:
> chuck wrote:
>> . . .
>> 2. What would the ohmic losses be over a one square foot by 33 foot
>> path through salt water?
>
> Let's see, salt water conductivity is about 5 S/m, which is 1.524 S/ft.
> So the *DC* resistance of that piece of sea water would be 1.524 * 33 /
> (1 * 1) ~ 50 ohms. . .

Oops. The DC resistance would be 33 / (1 * 1) / 1.524 ~ 22 ohms.

Roy Lewallen, W7EL

3240. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 06:38:10 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1148711890.309712.44960@38g2000cwa.googlegroups.com>
Source record: 58682

In a previous posting, I noted that for the 100 ohm line driven by 200*sqrt(2) volts DC through 100 ohms, there are two load resistors that dissipate 100 watts: 100*(3 +/- sqrt(8)) ohms. Continuing the observation about energy stored in electric versus energy stored in magnetic fields, for the low resistance, the steady state load and line voltage is low and the current is high; for the high resistance, the steady state voltage is high and the current is low. In the first case, 8.5786 joules is stored in the electric field and 291.42 in the magnetic; in the second those are reversed and 291.42 are stored in the electric and 8.5786 in the magnetic. The ratio of the two energies is exactly the same as the ratio of the load resistances.

In our lossless line, if the excitation is AC and steady-state has been reached, then the total energy stored per unit length varies as a function of time and distance in a somewhat complex manner. The ratio of electric to magnetic varies along the length of the line and as a function of time, with extremes being in a ratio equal to the square of the SWR, occuring of course at voltage and current maxima, spaced 1/4 wave apart, alternating down the line.

I'm not sure that those observations will be any use to anyone, but maybe they are of academic interest. Who knows what I might come up with after some Glenmorangie.

Cheers,
Tom

3241. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 07:24:10 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <Jw51gxFa6$dEFAB1@ifwtech.co.uk>
Source record: 58683

Buck wrote:
>
>
>Maybe I used the wrong word, 'resonance', but I was referring to the
>lowest SWR match, which I would assume for the example to be less than
>1.5:1 on a given frequency.
>

Lowest SWR is not the same thing as resonance.

This is one of those cases where the Smith chart is a good visual aid [1]. Here's a three-step guide:

1. The Smith chart is just another kind of "map projection". Instead of plotting latitude and longitude, we are plotting the resistive and reactive parts of complex impedances.

Geographical map projections are chosen to make certain features easy to see correctly, eg distance, direction, or area. The peculiar shape of the Smith chart is also designed to make certain things easy... once you've learned how to read the map.

2. All purely resistive impedances are on the "meridian line", the symmetry axis passing through the center of the chart. The resistance scale is nonlinear so that resistances from almost zero to almost infinity can be plotted. Impedances that lie anywhere off that meridian line have a reactive component. Anywhere inside one half-circle is inductive; anywhere in the opposite half-circle is capacitive.

3. At the center of the chart is your chosen system reference impedance (usually 50 ohms resistive). When you plot an impedance anywhere on the chart, the distance from the center point indicates its SWR, and the direction indicates the phase angle [2]. This gives the Smith chart one of its special features: you can draw circles of constant SWR.

It would obviously have been much easier to say that with the help of a drawing [3] but hose three points are all you need to know in order to use the Smith chart as a visual aid.

In particular, it is enough to *show* you the difference between resonance and lowest SWR.

When you plot the R-X impedance of your antenna against frequency across an amateur band, it traces a short arc on the Smith chart. If the antenna is supposed to give "a good 50-ohm match", the whole arc has to stay close to the center of the chart.

The frequency of minimum SWR is where the impedance arc passes closest to the exact center of the chart. The resonant frequency is where the arc crosses the meridian line (zero reactance). Those two frequencies are generally not the same.

[1] Reg will disagree; but Reg also has the kind of mind that can lift the same information straight out of the transmission-line equations. The Smith chart is for "the rest of us" who need to think in more visual terms. Fortunately those two different viewpoints are converging: we can now have computer programs that solve the equations exactly in the background, and plot them on the screen as a visual aid.

[2] Strictly speaking, radius is directly proportional to the magnitude of the reflection coefficient. One complete turn around the chart represents 180deg of phase angle, for the same reason that impedance along a (lossless) transmission line repeat themselves every HALF wavelength.

[3] The ARRL Antenna Handbook (current 20th edn) has a good chapter about understanding and using the Smith chart... with real drawings.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3242. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 07:41:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pqqf7299hhqft4ao7gphirvib87kc6t69n@4ax.com>
Source record: 58684

On Fri, 26 May 2006 21:18:13 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>There was one clear and unambiguous statement in your response, though:
>
> > Fields in free space are intimately joined and inseparable.

Hi Roy,

This statement inspired you to manufacture the following as being my
meaning?

>So we don't disagree after all. I see now that in your previous postings
>"contra-examples" really means "supporting examples", and "Ramo et. al .
>. . clearly support the separation of magnetic and electric flux
>(fields)" really means they reject it.

73's
Richard Clark, KB7QHC

3243. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 10:00:08 UTC
From: bob <b@bb.net>
Message-ID: <44782330_1@news.iprimus.com.au>
Source record: 58685

Roy Lewallen wrote:
> I put this aside until I could do a little modeling. A lot of postings
> have been made in the interim, but I don't see too much in the way of
> answers. I'll try to answer some of your questions.

I think we all would be interested in how a small piece of metal buried
in sea water can provide an efficient ground versus one or 2 elevated
radials. I also dont see how its efficient concentrating all your
current in such a small area. Since the salinity of salt water is not
constant using one or 2 radials on yacht would be more efficient.
>
> Will wrote:
>> I want to set up a hf antenna for my sailboat.
>>
>> I have read various guides from Icom etc.
>>
>> They suggest running copper foil to a Dynaplate and use sea water as
>> the ground. How can this work when the Dynaplate is below sea water?
>
> I don't know anything about Dynaplates, but if it's on the hull, it's
> very near the surface of the water. Any current it conducts will flow
> along the top of the water displaced by the hull. If, on the other hand,
> it's really under any depth of water at all, it'll be invisible to RF
> and might as well not be there.
>
>> Is sea water equal to copper wire radials as a RF ground system?
>
> Yes.
>
>> Does sea water make a good enough ground without radials?

How can salt water which would have some resistance even though
its conductivity is high compared to earth behave better than copper
wire when returning antenna currents to the feedpoint. The small amount
of current flowing in a 100 watt signal i would not want to waste
sending it into salt water. Salt makes good resistors, why would you
introduce a loss into the equation which radials seem to eliminate
even though we dont have ground loss over sea water? We also have the
issue of the skin depth of sea water to consider.
>
> Yes. A foot-long wire "ground rod" below the antenna provides a nearly
lossless ground connection at HF.

This is not how most yachts connect their ground connections. They
connect to the sea cocks well below the top of the water anywhere for

3ft to 5 ft down. Some even use slim flat ground shoes again well below
the water line. Its impractical for a any sail vessel to maintain a
connection to sea water close to the surface because loading and the
yacht heeling when sailing.
>
>> How can a piece of copper metal about 1 ft square equal several
>> radials laying on the boats deck?
>
> Radial wires are used for land based systems because of the poor
> conductivity of soil. Radial wires reduce the resistance of the path
> current takes going to and from the antenna base. Salt water is a good
> conductor and doesn't need -- and won't benefit from -- radial wires.

Indeed radials do perform this way. I would still want to use radials
wires even 1 or radials wires even on a yacht since the length of the
radials will have a greater capacity to sea water ground. It also would
be more efficient in providing a current return.
>
>> Why do i have to use copper foil when most other people suggest using
>> ordinary copper wire?
>
> You don't. And won't copper corrode rapidly in salt water?
>
>> Over seawater what would be the best number of radials to use
>> considering that maximum length i can run is 40 ft. I am planning to
>> use a backstay antenna with a SGC 230 Tuner.
>
> None. A simple wire down into the water is adequate. Or use a small
plate very near the surface if you prefer.

Again yachts bury their ground connection well below the skin depth.
Some even run the ground wire from the tuner down to the keel which is
well submersed in salt water. All they are using is one short piece of
foil that is behaving like a small radial. We will see what the models say.

2 elevated radials over seawater versus a 1 ft square piece of metal
buried below the skin depth. My money would be on the radials.

Bob
>
> Roy Lewallen, W7EL

3244. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 11:41:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <aWWdg.81671$F_3.24435@newssvr29.news.prodigy.net>
Source record: 58686

Buck wrote:
> Maybe I used the wrong word, 'resonance', but I was referring to the
> lowest SWR match, which I would assume for the example to be less than
> 1.5:1 on a given frequency.

'Resonance' means where the reactance is zero.
'Lowest SWR' usually means SWR read on a meter calibrated
for 50 ohms. These two conditions may be quite different.
40+j10 is not resonant but has a 50 ohm SWR of 1.4:1.
10+j0 is resonant but has a 50 ohm SWR of 5:1.
--
73, Cecil http://www.qsl.net/w5dxp

3245. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 12:09:28 UTC
From: Buck <not@this.time>
Message-ID: <s5gg729dq95req93ha0o6sf1ktqspb41aa@4ax.com>
Source record: 58687

On Fri, 26 May 2006 09:21:59 -0400, Buck <not@this.time> wrote:

> Will adding the reflector
>and/or director change the resonant frequency, or just the impedance?

Wow, I sure generated a lot of complex discussion. This was supposed
to be a general question with a simple answer such as, "Yes, the
dipole or inverted vee will have to be lengthened." (or shortened).

I do gather from earlier posts that the driven element will shift
frequency with the introduction of parasitic elements.

Thanks for all the answers.

--
73 for now
Buck
N4PGW

3246. Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 12:31:47 UTC
From: mavihot <mavihot@gmail.com>
Message-ID: <1148733107.594597.36040@u72g2000cwu.googlegroups.com>
Source record: 58688

Hello,
I can not handle a problem which is about AGC. Please help me about
that. The conditions are;
It is required to design and implement an AGC circuit
with the following specifcations:
1. Amplitude of the input voltage may vary between 10 mVpp and 50 mVpp.

2. Amplitude of the output voltage should be in the range 0.9 Vpp
and1.1 V
pp for the input signals with amplitudes stated above.

3. Output impedance of the ampli¯er should be smaller than 2 k.

4. The circuit should be able to amplify the signals having frequencies
between 500 Hz and 10000 Hz.

The amplifer designed should be a single transistor amplifer in the
common-emitter form for BJT amplifers or common-source form for the
FET amplifers. However, it can be used extra transistors for making the
amplifer an adjustable gain amplifer.

And the AGC should be composed of 2 parts adjustable gain part and
feedback part.

Please help me urgently to design this problem. Thanks...

3247. Re: Why Markie Spams

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 13:08:13 UTC
From: Leland C Scott <LelandCScott@licos.com>
Message-ID: <447841ce$0$24255$88260bb3@free.teranews.com>
Source record: 58689
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

whats wrong with sucking cock?

.
<W6BLO@yahoo.com> wrote in message
news:1148333653.989066.182600@38g2000cwa.googlegroups.com...
> markie the retard dreams of sucking hot hammie cock! sick little markie
> wants his demented father's cock in his mouth,too.
>

*** Posted via a free Usenet account from http://www.teranews.com ***

3248. Re: Why Markie Spams

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 14:17:51 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44785F8F.1090908@fuse.net>
Source record: 58690
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

Leland C Scott wrote:
>
> *** Posted via a free Usenet account from http://www.teranews.com ***
Please, everyone...JUST IGNORE THIS.

3249. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 14:19:59 UTC
From: richardharrison@webtv.net
Message-ID: <26667-4478600F-57@storefull-3255.bay.webtv.net>
Source record: 58691

Ian White, GM3SEK wrote:
"The ARRL Antenna Handbook (current 20th edn) has a good chapter about understanding and using the Smith chart with real drawings."

Thank you Ian.

The 2006 ARRL Handbook also has Smith chart instructions which begin on page 21.4.

Best regards, Richard Harrison, KB5WZI

3250. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 14:38:39 UTC
From: Tim Wescott <tim@seemywebsite.com>
Message-ID: <T_OdnYHqzcPz-eXZRVn-tA@web-ster.com>
Source record: 58692

mavihot wrote:
> Hello,
> I can not handle a problem which is about AGC. Please help me about
> that. The conditions are;
> It is required to design and implement an AGC circuit
> with the following specifcations:
> 1. Amplitude of the input voltage may vary between 10 mVpp and 50 mVpp.
>
> 2. Amplitude of the output voltage should be in the range 0.9 Vpp
> and1.1 V
> pp for the input signals with amplitudes stated above.
>
> 3. Output impedance of the amplii¿½er should be smaller than 2 kï¿½.
>
> 4. The circuit should be able to amplify the signals having frequencies
> between 500 Hz and 10000 Hz.
>
> The amplifer designed should be a single transistor amplifer in the
> common-emitter form for BJT amplifers or common-source form for the
> FET amplifers. However, it can be used extra transistors for making the
> amplifer an adjustable gain amplifer.
>
> And the AGC should be composed of 2 parts adjustable gain part and
> feedback part.
>
> Please help me urgently to design this problem. Thanks...
>
1. Read your textbook
2. Ask your prof
3. Engage your brain

Good luck.

--

Tim Wescott
Wescott Design Services
http://www.wescottdesign.com

Posting from Google? See http://cfaj.freeshell.org/google/

"Applied Control Theory for Embedded Systems" came out in April.
See details at http://www.wescottdesign.com/actfes/actfes.html

3251. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 14:39:08 UTC
From: "g. beat"
Message-ID: <QpmdnY_mzYsN-eXZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 58693

"mavihot" <mavihot@gmail.com> wrote in message
news:1148733107.594597.36040@u72g2000cwu.googlegroups.com...
Hello,

I can not handle a problem which is about AGC. Please help me about
that. The conditions are;
It is required to design and implement an AGC circuit
with the following specifcations:

1. Amplitude of the input voltage may vary between 10 mVpp and 50 mVpp.

2. Amplitude of the output voltage should be in the range 0.9 Vpp
and1.1 V
pp for the input signals with amplitudes stated above.

3. Output impedance of the ampli&#65533;er should be smaller than 2 k&#65533;.

4. The circuit should be able to amplify the signals having frequencies
between 500 Hz and 10000 Hz.

The amplifer designed should be a single transistor amplifer in the
common-emitter form for BJT amplifers or common-source form for the
FET amplifers. However, it can be used extra transistors for making the
amplifer an adjustable gain amplifer.

And the AGC should be composed of 2 parts adjustable gain part and
feedback part.

Please help me urgently to design this problem. Thanks...
==========
This sounds like a class assignment for an electronics design course.

> The circuit should be able to amplify the signals having frequencies
> between 500 Hz and 10000 Hz.

OK, its an "audio frequency" related amplifier design. Additional
requirement
that the single transistor amplifier be a common-emitter form for BJT
amplifiers
or common-source form for FET amplifier designs

> 3. Output impedance of the amplifier should be smaller than 2 k ohms&#65533;.

Speakers are 4, 8 or 16 ohm loads; 600 ohms is fairly standard in broadcast;
Original crystal set headphones (Trimm - vintage WW2) were 2000 ohms

> Amplitude of the output voltage should be in the range 0.9 Vpp and 1.1 Vpp
for the input voltage that may vary between 10 mVpp and 50 mVpp.

Standard amplifier with an AGC circuit - added requirements that the AGC should have
both an adjustable gain and feedback control.

Start with Google

3252. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 14:44:14 UTC
From: "g. beat"
Message-ID: <haWdnWsWJ8hf-OXZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 58694

"mavihot" <mavihot@gmail.com> wrote in message
news:1148733107.594597.36040@u72g2000cwu.googlegroups.com...
Hello,
I can not handle a problem which is about AGC. Please help me about
that. The conditions are;
It is required to design and implement an AGC circuit
with the following specifcations:
1. Amplitude of the input voltage may vary between 10 mVpp and 50 mVpp.

2. Amplitude of the output voltage should be in the range 0.9 Vpp
and1.1 V
pp for the input signals with amplitudes stated above.

3. Output impedance of the ampli&#65533;er should be smaller than 2 k&#65533;.

4. The circuit should be able to amplify the signals having frequencies
between 500 Hz and 10000 Hz.

The amplifer designed should be a single transistor amplifer in the
common-emitter form for BJT amplifers or common-source form for the
FET amplifers. However, it can be used extra transistors for making the
amplifer an adjustable gain amplifer.

And the AGC should be composed of 2 parts adjustable gain part and
feedback part.

Please help me urgently to design this problem. Thanks...
==========
Sad part is that I used a Google search phrase "AGC amplifier"
and found design almost to these specifications in less than 10 seconds.

We're doomed

3253. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 14:47:12 UTC
From: chuck <nospam@nospam.net>
Message-ID: <QDZdg.5857$921.4117@newsread4.news.pas.earthlink.net>
Source record: 58695

Roy Lewallen wrote:
> Roy Lewallen wrote:
>> chuck wrote:
>>> . . .
>>> 2. What would the ohmic losses be over a one square foot by 33 foot
>>> path through salt water?
>>
>> Let's see, salt water conductivity is about 5 S/m, which is 1.524
>> S/ft. So the *DC* resistance of that piece of sea water would be 1.524
>> * 33 / (1 * 1) ~ 50 ohms. . .
>
> Oops. The DC resistance would be 33 / (1 * 1) / 1.524 ~ 22 ohms.
>
> Roy Lewallen, W7EL

Thank you for the detailed response, Roy.

A couple of issues still trouble me however.

If the skin depth at 14 MHz is about 2.4 inches, can we roughly assume that the RF resistance of that path is no less than 52.8 ohms (2.4*22 ohms)? This assumes most of the RF current would occur in the top one inch (attenuation at one inch would be about 15 dB), and that the resistance at 14 MHz is equal to the DC resistance.

A path one inch deep by 16 feet long (1/4 wavelength at 14 MHz) would then have no less than 26.4 ohms resistance at 14 MHz.

Now imagine a system of multiple one foot wide by 16 feet long copper radials on the ground with 26.4 ohm resistance distributed uniformly in each radial. Obviously such a system will be lossy, with an average radial resistance of 13.2 ohms.

While the analogy is a stretch, it illustrates the difficulty I am having in understanding how seawater can be considered more efficient than even a single slightly elevated radial, which is reported to be less than 1 dB worse than 120 quarter wavelength buried radials (ignoring slight pattern distortion). So even if seawater does constitute a less lossy ground plane than a single radial (yeah, apples and oranges, but we can weigh their juices I think) it would be better by less than 1 dB. .

Then there is the issue of the one foot long "grounding rod" immersed in the sea. If the above back-of-the-envelope analysis is valid, it would seem that a even one inch long rod would be more than sufficient. If we were dealing with a pool of liquid mercury or silver, this would have

considerable intuitive appeal for me. But the seawater model is troubling. I imagine seawater to be a lot like earth, except more homogeneous and with orders of magnitude higher conductivity. And I imagine a perfect ground plane to have conductivity orders of magnitude higher than seawater. I imagine even a modest system of copper radials to appear more like liquid mercury than seawater does.

Where am I going astray?

73,

Chuck
NT3G

3254. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 15:41:20 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127gsp25fk91a9c@corp.supernews.com>
Source record: 58696

bob wrote:
> Roy Lewallen wrote:
>> I put this aside until I could do a little modeling. A lot of postings
>> have been made in the interim, but I don't see too much in the way of
>> answers. I'll try to answer some of your questions.
>
> I think we all would be interested in how a small piece of metal buried
> in sea water can provide an efficient ground versus one or 2 elevated
> radials. I also dont see how its efficient concentrating all your
> current in such a small area. Since the salinity of salt water is not
> constant using one or 2 radials on yacht would be more efficient.

Imagine for a moment that instead of salt water that the ocean was covered by a thick metal plate. How would you effectively use that as a ground? Salt water isn't as good a conductor as metal, but it acts more like that than dirt.

I don't know how much the salinity or conductivity of sea water varies, but suspect that even at its worst it's quite a good conductor.

> How can salt water which would have some resistance even though
its
> conductivity is high compared to earth behave better than copper wire
> when returning antenna currents to the feedpoint.

Cross sectional area. Replacing all the sea water with copper would improve it, but scattering a bunch of copper radials out and replacing only tiny parts of it wouldn't make much difference. And the loss is so low to begin with that even replacing it with copper wouldn't make any difference.

> The small amount of
> current flowing in a 100 watt signal i would not want to waste sending
> it into salt water.

It won't go in very far. It'll stay very close to the top. And the waste is negligble.

> Salt makes good resistors, why would you introduce
> a loss into the equation which radials seem to eliminate even though we
> dont have ground loss over sea water? We also have the issue of the
> skin depth of sea water to consider.

Solid salt is actually a decent dielectric, I believe. Again, the trick is cross sectional area. The current is spread over a large area of water, so the overall loss is negligible.

The analysis I did took skin effect into consideration. The skin depth
is even less in metal, yet metal has low RF loss.

>>
>> Yes. A foot-long wire "ground rod" below the antenna provides a nearly
> lossless ground connection at HF.
>
> This is not how most yachts connect their ground connections. They
> connect to the sea cocks well below the top of the water anywhere for
> 3ft to 5 ft down. Some even use slim flat ground shoes again well below
> the water line. Its impractical for a any sail vessel to maintain a
> connection to sea water close to the surface because loading and the
> yacht heeling when sailing.

I'm sorry to hear that, because any connection below a few inches is
ineffective at HF.

>>
>>> How can a piece of copper metal about 1 ft square equal several
>>> radials laying on the boats deck?
>>
>> Radial wires are used for land based systems because of the poor
>> conductivity of soil. Radial wires reduce the resistance of the path
>> current takes going to and from the antenna base. Salt water is a good
>> conductor and doesn't need -- and won't benefit from -- radial wires.
>
> Indeed radials do perform this way. I would still want to use radials
> wires even 1 or radials wires even on a yacht since the length of the
> radials will have a greater capacity to sea water ground.
> It also would
> be more efficient in providing a current return.

More efficient than a deep plate, for sure. Not any more efficient than
a foot long uninsulated wire extending downward from the surface. But by
all means use whatever makes you feel well grounded.

>>
>>> Why do i have to use copper foil when most other people suggest
>>> using ordinary copper wire?
>>
>> You don't. And won't copper corrode rapidly in salt water?
>>
>>> Over seawater what would be the best number of radials to use
>>> considering that maximum length i can run is 40 ft. I am planning to
>>> use a backstay antenna with a SGC 230 Tuner.
>>
>> None. A simple wire down into the water is adequate. Or use a small
> plate very near the surface if you prefer.
>
> Again yachts bury their ground connection well below the skin depth.
> Some even run the ground wire from the tuner down to the keel which is
> well submersed in salt water.

If the wire is uninsulated, the first few inches of the wire will
provide the ground connection. If it's insulated, they'll have no HF
ground connection at all except what's provided by capacitive coupling
through the first few inches of insulation.

> All they are using is one short piece of
> foil that is behaving like a small radial. We will see what the models say.

By all means, do some modeling. The only program I know of which will
allow modeling submerged conductors is NEC-4 and derivatives.

> 2 elevated radials over seawater versus a 1 ft square piece of metal
> buried below the skin depth. My money would be on the radials.

Certainly elevated radials would be better than metal more than a skin
depth or two deep. Better yet is a wire extending from the surface to a
few skin depths. Why isn't that possible?

Incidentally, I'm not proposing replacing the standard grounding system,
which I'm sure is important for other uses including, probably,
lightning protection. It will just need to be supplemented if you want
an effective HF ground.

Roy Lewallen, W7EL

3255. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 16:04:33 UTC
From: "Dan, danl, Redbeard uh Greybeard now" <danl4X@charter.net>
Message-ID: <l3ug72td53vkhbl5ivtj99efv8dh3vifj4@4ax.com>
Source record: 58697

On 27 May 2006 05:31:47 -0700, "mavihot" <mavihot@gmail.com> wrote:

>Hello,
>I can not handle a problem which is about AGC. Please help me about
>that. The conditions are;
>It is required to design and implement an AGC circuit
>with the following specifcations:
>1. Amplitude of the input voltage may vary between 10 mVpp and 50 mVpp.
>
>2. Amplitude of the output voltage should be in the range 0.9 Vpp
>and1.1 V
>pp for the input signals with amplitudes stated above.
>
>3. Output impedance of the amplii¿½er should be smaller than 2 kï¿½.
>
>4. The circuit should be able to amplify the signals having frequencies
>between 500 Hz and 10000 Hz.
>
>The amplifer designed should be a single transistor amplifer in the
>common-emitter form for BJT amplifers or common-source form for the
>FET amplifers. However, it can be used extra transistors for making the
>amplifer an adjustable gain amplifer.
>
>And the AGC should be composed of 2 parts adjustable gain part and
>feedback part.
>
>Please help me urgently to design this problem. Thanks...

Slept through class one to many times?

I've learned that I don't suffer from insanity, I enjoy it! (The hell with my X-wife!)
danl4x@charter.net
Remove the x for e-mail reply
www.outdoorfrontiers.com
www.SecretWeaponLures.com
A proud charter member of "PETAF", People for Eating Tasty Animals and Fish!!!

3256. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 16:28:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127gvi8btaoc324@corp.supernews.com>
Source record: 58698

chuck wrote:
>
> If the skin depth at 14 MHz is about 2.4 inches, can we roughly assume
> that the RF resistance of that path is no less than 52.8 ohms (2.4*22
> ohms)? This assumes most of the RF current would occur in the top one
> inch (attenuation at one inch would be about 15 dB), and that the
> resistance at 14 MHz is equal to the DC resistance.

What you'd need to do is look at the I^2 * R loss for every little pie slice of water the current flows through. It's greatest near the antenna (assuming a vertical) where the current density is greatest. In that region, the current density is greatest and R is also greatest, so that's where the majority of loss occurs. (Which is why a radial wire field is useful for land installations -- its resistance is least near the antenna.) So you can't just calculate a single value of R or I based on the current and cross section at some point -- the entire area over which the current is flowing must be taken into account. The modeling program does just that.

Don't get too worried about the skin depth. Shallower skin depth is an indication of a better conductor. The skin depth in metal is extremely thin, yet it's a better conductor yet.

> A path one inch deep by 16 feet long (1/4 wavelength at 14 MHz) would
> then have no less than 26.4 ohms resistance at 14 MHz.

True but irrelevant. The current at the far end is much less than the current at the near end.

> Now imagine a system of multiple one foot wide by 16 feet long copper
> radials on the ground with 26.4 ohm resistance distributed uniformly in
> each radial. Obviously such a system will be lossy, with an average
> radial resistance of 13.2 ohms.
>
> While the analogy is a stretch, it illustrates the difficulty I am
> having in understanding how seawater can be considered more efficient
> than even a single slightly elevated radial, which is reported to be
> less than 1 dB worse than 120 quarter wavelength buried radials
> (ignoring slight pattern distortion). So even if seawater does
> constitute a less lossy ground plane than a single radial (yeah, apples
> and oranges, but we can weigh their juices I think) it would be better
> by less than 1 dB. .

The problem is that the analogy is too much of a stretch. Too many incorrect assumptions were made, resulting in an invalid conclusion.

> Then there is the issue of the one foot long "grounding rod" immersed in
> the sea. If the above back-of-the-envelope analysis is valid, it would
> seem that a even one inch long rod would be more than sufficient.

As it turns out, a one inch rod is nearly as good, even though it doesn't extend to the entire depth where significant current is flowing. Half the total current is below about 1.7 inches deep. To connect directly with essentially all the current requires at least several skin depths. Here's the relative current on a foot long wire directly below a quarter wave vertical at 14 MHz:

Depth (in.) I
0.5 0.81
1.5 0.53
2.5 0.35
3.5 0.23
4.5 0.15
5.5 0.10
6.5 0.07
. . .
10.5 0.01
11.5 0.006

> If we
> were dealing with a pool of liquid mercury or silver, this would have
> considerable intuitive appeal for me. But the seawater model is
> troubling. I imagine seawater to be a lot like earth, except more
> homogeneous and with orders of magnitude higher conductivity. And I
> imagine a perfect ground plane to have conductivity orders of magnitude
> higher than seawater. I imagine even a modest system of copper radials
> to appear more like liquid mercury than seawater does.

At RF, taking skin depth into account, there's about 5 orders of magnitude difference between the conductivities of copper and average soil. Sea water is 30 times more conductive (at RF) than average soil, so it's still far short of copper. But Suppose we had a conductor which was 10 orders of magnitude more conductive than copper -- would it make any difference if our ground plane was made out of that or out of copper? How about 3 orders of magnitude less conductive? The fact is that in this application, 30 times better than soil is adequate for the water to behave a lot more like copper than like soil.

A modest system of radials in soil looks like very, very small cross sections of copper (remember the skin depth in copper!) separated by very large regions of soil.

Out of curiosity, I altered the conductivity of the water in my computer model. Dropping it by a factor of 10 at DC (about 3 at RF) results in a reduction of about one dB in field strength, or about 25% in efficiency when using a single ground wire. So salt water has just about the minimum conductivity you can get by with if you want really good efficiency with a single ground wire.

> Where am I going astray?

In oversimplifying the problem and using analogies which aren't quite right.

Roy Lewallen, W7EL

3257. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 16:30:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127gvltam7b9179@corp.supernews.com>
Source record: 58699

g. beat <@ wrote:
> "mavihot" <mavihot@gmail.com> wrote in message
>
> Please help me urgently to design this problem. Thanks...
> ==
> Sad part is that I used a Google search phrase "AGC amplifier"
> and found design almost to these specifications in less than 10 seconds.
>
> We're doomed

At best, the next generation of airplanes will be designed by google. At worst, the engineers won't even know how to find the answers there.

Roy Lewallen, W7EL

3258. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 16:58:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <WqidnSFzY9e-G-XZRVnyhA@bt.com>
Source record: 58700

The permittivity, K, of water is about 80.

The relative velocity of propagation along a wire immersed in water is about VF = 1/Sqrt(K) = 0.11

At a frequency of 7.5 MHz, a 1/4-wavelength of wire immersed in water is only 1.1 metres = 43 inches long.

Furthermore, in salt sea water, considering a wire as a transmission line, dielectric loss is so high there is little or no current flowing at the end of a quarterwave radial wire. Longer wires can be disregarded because they carry no current.

So, at 7.5 MHz, there is no point in considering a system which has more than a radius of 1.1 metres. At higher frequencies the radius is even less.

A copper coin, 1" in diameter, immersed in a large volume of salt water, has an impedance low enough to be used as an efficient ground for a 1/4-wave HF vertical antenna. It is limited by its power handling capacity.

I have made measurements years ago but have no records as I didn't attach any importance to them at the time. And still don't.

Unpolluted, clean, fresh pond water, is a different kettle of fish. Permittivity is still about 80 but the resistivity is very much greater. About 1000 ohm-metres is a reasonable value.

Reg.

3259. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 17:06:09 UTC
From: an old freind <kb9rqz_ars@hotmail.com>
Message-ID: <1148749569.235998.68980@y43g2000cwc.googlegroups.com>
Source record: 58701
Cross-posted to: rec.radio.amateur.antenna,rec.radio.cb,rec.radio.amateur.policy,alt.ham-radio.vhf-uhf

jawod wrote:
> Leland C Scott wrote:
> >
> > *** Posted via a free Usenet account from http://www.teranews.com ***
> Please, everyone...JUST IGNORE THIS.
when he is ignorable he will be ignored by me

but ignoring such folks only makes em stronger

3260. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 17:25:22 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1148750157_16697@sp6iad.superfeed.net>
Source record: 58702

Reg Edwards wrote:
> The permittivity, K, of water is about 80.
>
> The relative velocity of propagation along a wire immersed in water is
> about VF = 1/Sqrt(K) = 0.11
>
> At a frequency of 7.5 MHz, a 1/4-wavelength of wire immersed in water
> is only 1.1 metres = 43 inches long.
>
> Furthermore, in salt sea water, considering a wire as a transmission
> line, dielectric loss is so high there is little or no current flowing
> at the end of a quarterwave radial wire. Longer wires can be
> disregarded because they carry no current.
>
> So, at 7.5 MHz, there is no point in considering a system which has
> more than a radius of 1.1 metres. At higher frequencies the radius is
> even less.
>
> A copper coin, 1" in diameter, immersed in a large volume of salt
> water, has an impedance low enough to be used as an efficient ground
> for a 1/4-wave HF vertical antenna. It is limited by its power
> handling capacity.
>
> I have made measurements years ago but have no records as I didn't
> attach any importance to them at the time. And still don't.
>
> Unpolluted, clean, fresh pond water, is a different kettle of fish.
> Permittivity is still about 80 but the resistivity is very much
> greater. About 1000 ohm-metres is a reasonable value.
> ----
> Reg.
>
>

Interesting info, Reg.

I also made some kitchen table-top saltwater measurements about a year ago, but at much lower frequencies than you discuss. My measurements are not handy at the moment, but they don't comport with yours. I utilized a variety of electrode geometries: concentric, 4 pole, parallel plate, etc. Measurements of electric field strength, conductivity, path conductance, etc. are not difficult but interpretation of the data stumped me.

As you remember, the conductance of a saltwater path is a direct function of the path's cross-sectional area. A penny doesn't produce much of a cross-sectional area at its end of the path. Maybe your pennies are better than ours, Certainly worth more.

73.

Chuck

3261. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 17:49:48 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127h49u3qo5fcb0@corp.supernews.com>
Source record: 58703

Reg Edwards wrote:
> The permittivity, K, of water is about 80.
>
> The relative velocity of propagation along a wire immersed in water is
> about VF = 1/Sqrt(K) = 0.11
>. . .

When the material is conductive, like salt water, you also have to consider the conductivity in determining velocity factor. The velocity factor in salt water is 0.0128 at 7.5 MHz, 0.0175 at 14 MHz (based on conductivity of 5 S/m and dielectric constant of 81).

Incidentally, you can get this information directly from EZNEC, including the demo program. Select a real ground type, then find the velocity factor, skin depth, and other information in Utilities/Ground Info.

Roy Lewallen, W7EL

3262. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 18:09:20 UTC
From: bob <b@bb.net>
Message-ID: <447895d9_1@news.iprimus.com.au>
Source record: 58704

chuck wrote:
> Reg Edwards wrote:
>> The permittivity, K, of water is about 80.
>>
>> The relative velocity of propagation along a wire immersed in water is
>> about VF = 1/Sqrt(K) = 0.11
>>
>> At a frequency of 7.5 MHz, a 1/4-wavelength of wire immersed in water
>> is only 1.1 metres = 43 inches long.
>>
>> Furthermore, in salt sea water, considering a wire as a transmission
>> line, dielectric loss is so high there is little or no current flowing
>> at the end of a quarterwave radial wire. Longer wires can be
>> disregarded because they carry no current.
>>
>> So, at 7.5 MHz, there is no point in considering a system which has
>> more than a radius of 1.1 metres. At higher frequencies the radius is
>> even less.
>>
>> A copper coin, 1" in diameter, immersed in a large volume of salt
>> water, has an impedance low enough to be used as an efficient ground
>> for a 1/4-wave HF vertical antenna. It is limited by its power
>> handling capacity.
>>
>> I have made measurements years ago but have no records as I didn't
>> attach any importance to them at the time. And still don't.
>>
>> Unpolluted, clean, fresh pond water, is a different kettle of fish.
>> Permittivity is still about 80 but the resistivity is very much
>> greater. About 1000 ohm-metres is a reasonable value.
>> ----
>> Reg.
>>
>>
>
> Interesting info, Reg.
>
> I also made some kitchen table-top saltwater measurements about a year
> ago, but at much lower frequencies than you discuss. My measurements are
> not handy at the moment, but they don't comport with yours. I utilized a
> variety of electrode geometries: concentric, 4 pole, parallel plate,
> etc. Measurements of electric field strength, conductivity, path
> conductance, etc. are not difficult but interpretation of the data
> stumped me.

>
> As you remember, the conductance of a saltwater path is a direct
> function of the path's cross-sectional area. A penny doesn't produce
> much of a cross-sectional area at its end of the path. Maybe your
> pennies are better than ours, Certainly worth more.
>
> 73.
>
> Chuck
Hi Chuck

So what would be the best size cross sectional area to achieve a close to perfect RF ground from 1 to 30 mhz over sea water? Considering things like corrosion, fowling, growth on the plate over time and any other factors that would deteriorate the effectiveness of this connection. You would want adequate safety margin when using this kind of simple direct contact.

Bob

3263. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 18:59:49 UTC
From: bob <b@bb.net>
Message-ID: <4478a1b5_1@news.iprimus.com.au>
Source record: 58705

Roy Lewallen wrote:
> bob wrote:
>> Roy Lewallen wrote:
>>> I put this aside until I could do a little modeling. A lot of
>>> postings have been made in the interim, but I don't see too much in
>>> the way of answers. I'll try to answer some of your questions.
>>
>> I think we all would be interested in how a small piece of metal
>> buried in sea water can provide an efficient ground versus one or 2
>> elevated radials. I also dont see how its efficient concentrating
>> all your current in such a small area. Since the salinity of salt
>> water is not constant using one or 2 radials on yacht would be more
>> efficient.
>
> Imagine for a moment that instead of salt water that the ocean was
> covered by a thick metal plate. How would you effectively use that as a
> ground? Salt water isn't as good a conductor as metal, but it acts more
> like that than dirt.
>
> I don't know how much the salinity or conductivity of sea water varies,
> but suspect that even at its worst it's quite a good conductor.
>
> > How can salt water which would have some resistance even though its
>> conductivity is high compared to earth behave better than copper wire
>> when returning antenna currents to the feedpoint.
>
> Cross sectional area. Replacing all the sea water with copper would
> improve it, but scattering a bunch of copper radials out and replacing
> only tiny parts of it wouldn't make much difference. And the loss is so
> low to begin with that even replacing it with copper wouldn't make any
> difference.
>
>> The small amount of current flowing in a 100 watt signal i would not
>> want to waste sending it into salt water.
>
> It won't go in very far. It'll stay very close to the top. And the waste
> is negligble.
>
>> Salt makes good resistors, why would you introduce a loss into the
>> equation which radials seem to eliminate even though we dont have
>> ground loss over sea water? We also have the issue of the skin depth
>> of sea water to consider.
>
> Solid salt is actually a decent dielectric, I believe. Again, the trick

> is cross sectional area. The current is spread over a large area of
> water, so the overall loss is negligible.
>
> The analysis I did took skin effect into consideration. The skin depth
> is even less in metal, yet metal has low RF loss.
>
>>>
>>> Yes. A foot-long wire "ground rod" below the antenna provides a nearly
>> lossless ground connection at HF.
>>
>> This is not how most yachts connect their ground connections. They
>> connect to the sea cocks well below the top of the water anywhere for
>> 3ft to 5 ft down. Some even use slim flat ground shoes again well
>> below the water line. Its impractical for a any sail vessel to
>> maintain a connection to sea water close to the surface because
>> loading and the yacht heeling when sailing.
>
> I'm sorry to hear that, because any connection below a few inches is
> ineffective at HF.
>
>>>
>>>> How can a piece of copper metal about 1 ft square equal several
>>>> radials laying on the boats deck?
>>>
>>> Radial wires are used for land based systems because of the poor
>>> conductivity of soil. Radial wires reduce the resistance of the path
>>> current takes going to and from the antenna base. Salt water is a
>>> good conductor and doesn't need -- and won't benefit from -- radial
>>> wires.
>>
>> Indeed radials do perform this way. I would still want to use
>> radials wires even 1 or radials wires even on a yacht since the
>> length of the radials will have a greater capacity to sea water ground.
>> It also would be more efficient in providing a current return.
>
> More efficient than a deep plate, for sure. Not any more efficient than
> a foot long uninsulated wire extending downward from the surface. But by
> all means use whatever makes you feel well grounded.
>
>>>
>>>> Why do i have to use copper foil when most other people suggest
>>>> using ordinary copper wire?
>>>
>>> You don't. And won't copper corrode rapidly in salt water?
>>>
>>>> Over seawater what would be the best number of radials to use
>>>> considering that maximum length i can run is 40 ft. I am planning to
>>>> use a backstay antenna with a SGC 230 Tuner.
>>>
>>> None. A simple wire down into the water is adequate. Or use a small

>> plate very near the surface if you prefer.
>>
>> Again yachts bury their ground connection well below the skin depth.
>> Some even run the ground wire from the tuner down to the keel which
>> is well submersed in salt water.
>
> If the wire is uninsulated, the first few inches of the wire will
> provide the ground connection. If it's insulated, they'll have no HF
> ground connection at all except what's provided by capacitive coupling
> through the first few inches of insulation.
>
>> All they are using is one short piece of foil that is behaving like a
>> small radial. We will see what the models say.
>
> By all means, do some modeling. The only program I know of which will
> allow modeling submerged conductors is NEC-4 and derivatives.

I dont have NEC4 is it too much to ask you to run the model. Radials
over sea water versus a direct connection?

>
>> 2 elevated radials over seawater versus a 1 ft square piece of
>> metal buried below the skin depth. My money would be on the radials.
>
> Certainly elevated radials would be better than metal more than a skin
> depth or two deep. Better yet is a wire extending from the surface to a
> few skin depths. Why isn't that possible?

Theres no easy way of making sure that the wires will submerge
precisely or close to the ideal skin depth. The loading and heeling of
the yacht would affect this depending on the sailing position wind
speed and other factors. The motion of the waves and swell conditions
will also be another variable. It would work great when you anchored.

>
> Incidentally, I'm not proposing replacing the standard grounding system,
> which I'm sure is important for other uses including, probably,
> lightning protection. It will just need to be supplemented if you want
> an effective HF ground.
>
> Roy Lewallen, W7EL

Well if you read the many sailing web pages and the Icom marine
guides they all advocate installing your RF ground system well below
the skin depth of salt water. They also advocate bonding all your on
board metals to submerged objects like the keel and copper ground
shoes, which is clearly wrong.

A yacht with elevated radials installed below the deck would radiate a
better signal in my view. However what constitutes an effective radial
system over seawater for frequencies between 1 and 30 mhz using a
random wire backstay antenna versus a direct connection to sea water i

cant answer without the modeling software.

Bob

3264. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 19:21:54 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1148757150_17183@sp6iad.superfeed.net>
Source record: 58706

bob wrote:
> chuck wrote:
>> Reg Edwards wrote:
>>> The permittivity, K, of water is about 80.
>>>
>>> The relative velocity of propagation along a wire immersed in water is
>>> about VF = 1/Sqrt(K) = 0.11
>>>
>>> At a frequency of 7.5 MHz, a 1/4-wavelength of wire immersed in water
>>> is only 1.1 metres = 43 inches long.
>>>
>>> Furthermore, in salt sea water, considering a wire as a transmission
>>> line, dielectric loss is so high there is little or no current flowing
>>> at the end of a quarterwave radial wire. Longer wires can be
>>> disregarded because they carry no current.
>>>
>>> So, at 7.5 MHz, there is no point in considering a system which has
>>> more than a radius of 1.1 metres. At higher frequencies the radius is
>>> even less.
>>>
>>> A copper coin, 1" in diameter, immersed in a large volume of salt
>>> water, has an impedance low enough to be used as an efficient ground
>>> for a 1/4-wave HF vertical antenna. It is limited by its power
>>> handling capacity.
>>>
>>> I have made measurements years ago but have no records as I didn't
>>> attach any importance to them at the time. And still don't.
>>>
>>> Unpolluted, clean, fresh pond water, is a different kettle of fish.
>>> Permittivity is still about 80 but the resistivity is very much
>>> greater. About 1000 ohm-metres is a reasonable value.
>>> ----
>>> Reg.
>>>
>>>
>>
>> Interesting info, Reg.
>>
>> I also made some kitchen table-top saltwater measurements about a year
>> ago, but at much lower frequencies than you discuss. My measurements
>> are not handy at the moment, but they don't comport with yours. I
>> utilized a variety of electrode geometries: concentric, 4 pole,
>> parallel plate, etc. Measurements of electric field strength,
>> conductivity, path conductance, etc. are not difficult but

>> interpretation of the data stumped me.
>>
>> As you remember, the conductance of a saltwater path is a direct
>> function of the path's cross-sectional area. A penny doesn't produce
>> much of a cross-sectional area at its end of the path. Maybe your
>> pennies are better than ours, Certainly worth more.
>>
>> 73.
>>
>> Chuck
> Hi Chuck
>
> So what would be the best size cross sectional area to achieve a close
> to perfect RF ground from 1 to 30 mhz over sea water? Considering things
> like corrosion, fowling, growth on the plate over time and any other
> factors that would deteriorate the effectiveness of this connection. You
> would want adequate safety margin when using this kind of simple direct
> contact.
>
> Bob

Hello Bob,

Sorry, but I'm not able to answer your question as I'm still struggling to find an appropriate mental construct. For the moment, I'm suspending disbelief, as they say.

Roy, W7EL, has reported model results showing that a wire (probably a few millimeters in diameter) only one foot long will produce near-perfect (my words) results.

The greater the cross-sectional area, the better, of course, but it would seem not to be a critical factor based on what both Roy and Reg reported, A one inch diameter copper pipe would probably give you some margin based on those reports. Make it a couple of feet long and slip it through six inches or so of one of those foam "noodles" the kids use when swimming. That will keep it afloat, ensure it is visible, and protect the hull from damage when it collides. Remember that you will have to figure out how to attach this pipe to your tuner. In a lot of installations, that will mean six feet or more of wire (from tuner to pipe) hanging over the gunwale. That wire is effectively part of your antenna, and it will radiate. For convenience, it would make sense to let the pipe float away from the hull by six feet or so, but that makes the connecting wire even longer. If you hang something like that over the side you'll doubtless want to secure it with some kind of UV resistant line to take the strain off the wire, especially when under way (ugh!).

On some boats, using the stainless rudder shaft could be a better solution if you can attach to it. It is often near the surface of the water. On other boats, the rudder shaft exits the hull well below sea level and that probably wouldn't work.

Experiment by all means, and if you go the copper pipe route, just
remember that your zinc will be protecting whatever copper you immerse.
If you use a lot of copper (like a 1 foot diameter by 1 foot long
cylinder made of copper flashing with lots of holes drilled in it),
expect accelerated depletion of zinc.

Good luck.

Chuck

----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3265. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 19:50:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gv8h729kqtlafpoo0bsf8ucq6tck27ihml@4ax.com>
Source record: 58707
Body handling: HTML body converted to readable text

On Sun, 28 May 2006 04:59:49 +1000, bob wrote:

> Well if you read the many sailing web pages and the Icom marine
>guides they all advocate installing your RF ground system well below
>the skin depth of salt water. They also advocate bonding all your on
>board metals to submerged objects like the keel and copper ground
>shoes, which is clearly wrong.

Hi Bob,

As I offered some time ago, how deep is fairly immaterial and your dismissal of "many sailing web pages, Icom" and so on to then come to the conclusion that they are "clearly wrong" is not quite so clear why.

There are only two paths to that ground system well below the skin depth of salt water:
(1) Through the water;
(2) Through a lot of air within the boat.

For (1), that already takes care of itself, but is a very odd method to getting to that dynaplate. Besides, a wire tacked to the outside of the hull, or worse simple thrashing in the surf, has got to add to drag. Following this wet path automatically snubs how much current will make it to the plate anyway. As Reggie offers, after 40 inches at 7MHz it is immaterial and that wet path to the plate makes the plate simply a tie-point. In short, you have to penetrate that skin depth to get beneath it. Penetrating it solves the "problem" of going too deep.

For (2), what do you stand to lose with a deeper connection that is approached through the interior of the boat? This is a matter of matching characteristics, which lead to issues of loss. You have the same connection loss anyway you look at it.

So, what value is there in these page's recommendations? It insures a connection.

Of course, I could be wrong. I've only had experience in electronics on Big Gray Boats in salt water, or in Big Gray Submarines beneath salt water. Ground was everywhere and death as far away as a power lead (several dozen nuclear warheads were only slightly further away).

73's
Richard Clark, KB7QHC

3266. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 20:42:04 UTC
From: "g. beat"
Message-ID: <Fo2dnS8IH40CJOXZnZ2dnUVZ_v2dnZ2d@comcast.com>
Source record: 58708

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:127gvltam7b9179@corp.supernews.com...
> g. beat <@ wrote:
>> "mavihot" <mavihot@gmail.com> wrote in message Please help me urgently to
>> design this problem. Thanks...
>> ==
>> Sad part is that I used a Google search phrase "AGC amplifier"
>> and found design almost to these specifications in less than 10 seconds.
>>
>> We're doomed
>
> At best, the next generation of airplanes will be designed by google. At
> worst, the engineers won't even know how to find the answers there.
>
> Roy Lewallen, W7EL

Roy, If that is true - let's hope your designs (and a few other true
workbench designers) -
comes up first on the Google list.

gb

3267. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 21:38:17 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrne7hhm9.1vv2.ben@saturn.home.ben.com>
Source record: 58710

On 2006-05-27, mavihot <mavihot@gmail.com> wrote:
>
> Please help me urgently to design this problem. Thanks...

Why do East Asian requests for help always come with "urgent!!" on them?
I've seen plenty of requests that would have gotten answers but for
the demanding tone.

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

3268. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 21:40:01 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <0lhh72hefvvqb03jqtm7sqmaegpfju5trj@4ax.com>
Source record: 58711

On Sat, 27 May 2006 16:38:17 -0500, Ben Jackson <ben@ben.com> wrote:

>On 2006-05-27, mavihot <mavihot@gmail.com> wrote:
>>
>> Please help me urgently to design this problem. Thanks...
>
>Why do East Asian requests for help always come with "urgent!!" on them?
>I've seen plenty of requests that would have gotten answers but for
>the demanding tone.

Hi Ben,

Two things wrong with this:
1) He's in Ankara (West, not East);
B) We get the same the same urgent requests from American students in
Florida (and all points north and west of there too).

The end of term is coming up.

73's
Richard Clark, KB7QHC

3269. Re: Loose antenna base?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-27 22:34:52 UTC
From: Ken C <cprstn54@nospam.att.net>
Message-ID: <vrkh72tb8pog2k76171958ifd7taspslml@4ax.com>
Source record: 58709

On Fri, 26 May 2006 23:37:42 -0400, "TimPerry"
<timperry@noaspamadelphia.net> wrote:
>red loctite

I don't think so. It is not conductive.

Maybe conductive epoxy would work, tho.

This would not be going on the threads. Rather, it has to bond the
[unthreaded] outside of female threaded collar to the antenna tubing.

Ken KC2JDY

3270. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 00:27:03 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <27ydneTlhcKXc-XZRVn-tg@comcast.com>
Source record: 58712

Roy Lewallen wrote:

> g. beat <@ wrote:
>
>> "mavihot" <mavihot@gmail.com> wrote in message
>> Please help me urgently to design this problem. Thanks...
>> ==
>> Sad part is that I used a Google search phrase "AGC amplifier"
>> and found design almost to these specifications in less than 10 seconds.
>>
>> We're doomed
>
>
> At best, the next generation of airplanes will be designed by google. At
> worst, the engineers won't even know how to find the answers there.
>
> Roy Lewallen, W7EL

I see the day coming when an engineer will think a Schmidt trigger is a component of an UZI.

3271. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 00:30:23 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <27ydneflhcJWc-XZRVn-tg@comcast.com>
Source record: 58713

Attend class, stay awake, take notes, study, pass simple exam question.

Getting the answer here or from Google is called plagiarism. You get an
'F' if the instructor finds out.

mavihot wrote:

> Hello,
> I can not handle a problem which is about AGC. Please help me about
> that. The conditions are;
> It is required to design and implement an AGC circuit
> with the following specifcations:
> 1. Amplitude of the input voltage may vary between 10 mVpp and 50 mVpp.
>
> 2. Amplitude of the output voltage should be in the range 0.9 Vpp
> and1.1 V
> pp for the input signals with amplitudes stated above.
>
> 3. Output impedance of the ampliï¿½er should be smaller than 2 kï¿½.
>
> 4. The circuit should be able to amplify the signals having frequencies
> between 500 Hz and 10000 Hz.
>
> The amplifer designed should be a single transistor amplifer in the
> common-emitter form for BJT amplifers or common-source form for the
> FET amplifers. However, it can be used extra transistors for making the
> amplifer an adjustable gain amplifer.
>
> And the AGC should be composed of 2 parts adjustable gain part and
> feedback part.
>
> Please help me urgently to design this problem. Thanks...
>

3272. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 00:47:41 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4478f32d$0$6151$39cecf19@news.twtelecom.net>
Source record: 58714

Yuri Blanarovich wrote:
>
As you start adding elements,
> they add capacitance to the system and lower the overall resonant frequency
> and impedance. Single Dipole is around 75 ohms, 3 el. Yagi around 30 ohms.
> The more elements you add, the more sensitive the design is and requires
> more prunning for optimum performance. So just slapping elements to Inv Vee
> dipole will not produce optimized antenna. EZNEC, 4NEC2, MMANA are an
> excellent tools to demonstrate that and to optimize the design, give you
> dimensions and impedance and understanding behavior of antennas, give
> current distribution in elements, plots of impedance, gain and other
> parameters.
>

I've never seen a yagi design center frequency move any particular
direction when another element is added. I am sure you have a specific
example you can give us.

thanks
tom
K0TAR

3273. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 00:50:01 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4478f3b9$0$6151$39cecf19@news.twtelecom.net>
Source record: 58715

Yuri Blanarovich wrote:

> As you start adding elements,
> they add capacitance to the system and lower the overall resonant frequency
> and impedance. Single Dipole is around 75 ohms, 3 el. Yagi around 30 ohms.
> The more elements you add, the more sensitive the design is and requires
> more prunning for optimum performance. So just slapping elements to Inv Vee
> dipole will not produce optimized antenna. EZNEC, 4NEC2, MMANA are an
> excellent tools to demonstrate that and to optimize the design, give you
> dimensions and impedance and understanding behavior of antennas, give
> current distribution in elements, plots of impedance, gain and other
> parameters.
>

And I should have said resonance, not center frequency.

tom
K0TAR

3274. Re: I was going through about ten years of ham catalogs, and I noticed a disturbing trend.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 00:52:41 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4478f459$0$6151$39cecf19@news.twtelecom.net>
Source record: 58716
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Morse or Re-Morse wrote:

> There's an increase in recent years of ham gear Retailers offering an
> expanding amount of citizen band radios and related products.
>
> So Retailers have seen the changes in the type of people that are
> making up and will be making up the US ham population, and have modified
> their inventories and marketing to stay in step with it.
>
> Gotta keep selling them radio's, Ten-Four?
>
>
> Morse

No, they aren't. Not the real ones.

GOAT.

tom
K0TAR

3275. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 01:44:35 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44790084$0$6142$39cecf19@news.twtelecom.net>
Source record: 58717

Dave wrote:

> Roy Lewallen wrote:
>
>> g. beat <@ wrote:
>>
>>> "mavihot" <mavihot@gmail.com> wrote in message
>>> Please help me urgently to design this problem. Thanks...
>>> ==
>>> Sad part is that I used a Google search phrase "AGC amplifier"
>>> and found design almost to these specifications in less than 10 seconds.
>>>
>>> We're doomed
>>
>>
>>
>> At best, the next generation of airplanes will be designed by google.
>> At worst, the engineers won't even know how to find the answers there.
>>
>> Roy Lewallen, W7EL
>
>
> I see the day coming when an engineer will think a Schmidt trigger is a
> component of an UZI.
>

I thought it was a turn-on for certain Germans. My mistake.

tom
K0TAR

3276. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 02:35:12 UTC
From: w8ji@akorn.net
Message-ID: <1148783712.516422.87090@j33g2000cwa.googlegroups.com>
Source record: 58718

I added some stuff on my webpage that relates to this thread.

It might help explain how a shield works, or at least give people ideas
on how to make their own measurements.

http://www.w8ji.com/skindepth.htm

It's VERY clear nothing goes directly through a wall.

73 Tom

3277. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 02:53:06 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrne7i44i.25h8.ben@saturn.home.ben.com>
Source record: 58719

On 2006-05-27, Richard Clark <kb7qhc@comcast.net> wrote:
>
> Two things wrong with this:
> 1) He's in Ankara (West, not East);
> B) We get the same the same urgent requests from American students in
> Florida (and all points north and west of there too).

I) I guess if I'm going to generalize I'd better pay more attention.

Two) I still think there's a cultural/language issue going on. I get
questions all the time from people about projects on my web page.
Almost all of the ones from people with Chinese/Indian sounding
names (hard to tell where they're from if they don't volunteer it and
they're using Yahoo mail!) are demanding. Here's the first example
in my inbox, although this one is relatively tame:

] i'm very interesting about this project because i want to use this simple card
] for a simple interface with the hardware outside for example for a simple
] input/output. i want to ask about the schematic of this project. Can you help
] me for this. i wait your answer as soon as possible.

In contrast, American students seem to just cut and paste requirements
from the handout. ;-)

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

3278. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 02:55:00 UTC
From: Brian MW3BAU / 2W0BDW <notsaying@here.com>
Message-ID: <8i8eg.3959$zv2.3206@newsfe4-gui.ntli.net>
Source record: 58720

"Dave" <W1MCE@comcast.net> wrote in message
news:27ydneTlhcKXc-XZRVn-tg@comcast.com...
> Roy Lewallen wrote:
>
>> g. beat <@ wrote:
>>
>>> "mavihot" <mavihot@gmail.com> wrote in message
>>> Please help me urgently to design this problem. Thanks...
>>> ==
>>> Sad part is that I used a Google search phrase "AGC amplifier"
>>> and found design almost to these specifications in less than 10 seconds.
>>>
>>> We're doomed
>>
>>
>> At best, the next generation of airplanes will be designed by google. At
>> worst, the engineers won't even know how to find the answers there.
>>
>> Roy Lewallen, W7EL
>
> I see the day coming when an engineer will think a Schmidt trigger is a
> component of an UZI.
>
I thought it was the 'killing button' of an ME109 LOL

3279. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 03:47:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <V29eg.34564$4L1.3672@newssvr11.news.prodigy.com>
Source record: 58721

"Ben Jackson" <ben@ben.com> wrote:
> I still think there's a cultural/language issue going on.

I once worked for Oki Semiconductor and received a manual that had
been translated from Japanese to "English" by a Japanese Engineer.
One sentence translated as: "The user functions are functions that
are used by the user." I wondered what had gotten lost in that
translation.
--
73, Cecil http://www.qsl.net/w5dxp

3280. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 04:58:13 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <F5aeg.27941$QP4.12044@fed1read12>
Source record: 58722

"Bart Bailey" <me2@privacy.net> wrote in message
news:4477db49.5273685@bart.spawar.mil...
> In Message-ID:<lkQdg.27874$QP4.7530@fed1read12> posted on Fri, 26 May
> 2006 21:12:01 -0700, Sal M. Onella wrote:
>
> > The training aids for the EMI
> >Awareness course I used to teach at San Diego Naval Station (command =
> >FTSCPAC, if you know that outfit) included a funky little plywood ship,
> >within which were two milliwatt-level HF "transmitters" and a receiver.
>
> Was that what was called the model pond, has a chocolate chip looking
> tower arcing out over it, very unusual sight from the road?
> I had a friend Charles Roy WS6F (now SK) that used to work there.

No, but I know what you're talking about. (The demo I did for class was a desktop affair -- kept in a suitcase between classes) You're probably referring to the model range(s) at Naval Ocean Systems Center (NOSC) on Point Loma. NOSC was consolidated, I think, into Space and Naval Warfare Systems Center, San Diego.

For those not familiar with this process, they used brass ship models, both existing and proposed, built to 1/48 scale. They were on a lead (Pb) "sea" at least 100 feet across. At the center of the "sea" was a turntable, on which the model could present any aspect to the tower you refer to. The tower supported a log periodic antenna which could be raised along a curved arc from the horizon up to the zenith, overhead the model. Picture about halfway down the page at

http://www.spawar.navy.mil/sti/publications/pubs/td/1940/photos/

The model ship was fitted with scale antennas, complete with coax that ran down through the turntable and into the control room. For any given antenna and location on the model, the engineers could get a three-dimension Antenna Radiation Pattern at scale for a good idea of how it would work in the real world. ... and I understand it was quite reliable. 96 MHz scale was 2 MHz real-world, and so on. I think the LPA did all the transmitting, but I'm not positive.

I got a guided tour of the range once in the 1980's when I was in their building for an unrelated conference. (It was more interesting than parts of the conference, but that's another story.) I wonder, do they still model antennas this way?

A few of the brass models were regularly on display, visible from the road about ten feet behind the fence, for many years. It has been five years since I did any work on Point Loma and I don't know if any models are still

in public view.

73,
John

3281. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 05:11:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <akbi72dceavc9hsp83bo2r6c1h2nq6kfae@4ax.com>
Source record: 58723

On Sat, 27 May 2006 21:53:06 -0500, Ben Jackson <ben@ben.com> wrote:

>In contrast, American students seem to just cut and paste requirements
>from the handout. ;-)

Hi Ben,

My professional page got me inquiries from a private investigation of the TWA flight 800 crash. But I got something in return, a graphic chart of all the flight control settings from take-off until the lights went out. The questions I got from the lawyer went deeper than any student's final project.

73's
Richard Clark, KB7QHC

3282. Re: FIGHT? Here is another W8JI myth bone!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 05:30:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <i3di72lg3psjhfb3g2fopb2jel59aro11e@4ax.com>
Source record: 58724

On 27 May 2006 19:35:12 -0700, w8ji@akorn.net wrote:

>I added some stuff on my webpage that relates to this thread.
>
>It might help explain how a shield works, or at least give people ideas
>on how to make their own measurements.
>
>http://www.w8ji.com/skindepth.htm
>
>It's VERY clear nothing goes directly through a wall.

Hi Tom,

The stuff you've got there is nice, but the accompanying discussion has very little context if you haven't been part of the threads here. In fact, and only from my recollection, your descriptions were better described in this group. At the page however, I really don't see what you are trying to do in the "How does a shield work." The "Faraday Screens" was interesting. It would be more interesting with the data you imply, but that is hardly necessary as there is so much literature in how it works.

73's
Richard Clark, KB7QHC

3283. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 06:43:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127ihkinucmit64@corp.supernews.com>
Source record: 58725

bob wrote:
>
> I dont have NEC4 is it too much to ask you to run the model. Radials
> over sea water versus a direct connection?

Sure. How many, how high, and how long? The foot-long wire produces efficiency of virtually unmeasurably close to 100%. So radials can't be significantly better. What sort of efficiency are you expecting from the radials?

>>[I wrote:]
>> Certainly elevated radials would be better than metal more than a skin
>> depth or two deep. Better yet is a wire extending from the surface to
>> a few skin depths. Why isn't that possible?
>
> Theres no easy way of making sure that the wires will submerge
> precisely or close to the ideal skin depth. The loading and heeling of
> the yacht would affect this depending on the sailing position wind
> speed and other factors. The motion of the waves and swell conditions
> will also be another variable. It would work great when you anchored.

Why can't you extend a wire or strip all around your boat, or make it several feet long? There's no penalty for having it extend beyond several skin depths. Fishermen somehow manage to keep their lines and nets in the water -- surely you can work out a way to keep a wire in the water.

> Well if you read the many sailing web pages and the Icom marine
> guides they all advocate installing your RF ground system well below
> the skin depth of salt water. They also advocate bonding all your on
> board metals to submerged objects like the keel and copper ground
> shoes, which is clearly wrong.

Yes. There's a vast amount of incorrect information on the web. Have you ever browsed around audiophile pages dealing with speaker wire? I'm sure there are innumerable astrology pages, too.

> A yacht with elevated radials installed below the deck would radiate a
> better signal in my view. However what constitutes an effective radial
> system over seawater for frequencies between 1 and 30 mhz using a
> random wire backstay antenna versus a direct connection to sea water i
> cant answer without the modeling software.

All I can do is present the results that physical laws dictate. It's not uncommon for that to be inadequate to change a person's beliefs.

Roy Lewallen, W7EL

3284. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 06:58:04 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <Vp-dndpEytt31-TZRVnygg@bt.com>
Source record: 58626

To illustrate the order of magnitude of the effects :

An ideal shape of ground electrode is a hemisphere, of diameter D metres, pressed into the soil, flush with the soil surface..

Its resistance to the soil is easily proved and calculated :

R = S / Pi / D ohms,

where S is the soil's resistivity in ohm-metres and D is the diameter in metres. Pi = 3.14. The metric system is by far the most simple.

The resistivity of salt sea water is 0.22 ohm-metres, constant wherever you may sample and test. Unaffected by the melting of the glaciers.

So with a diameter of 0.22 metres = 9 inches, the electrode resistance = 1 ohm. Low enough?

If the ground electrode is a ball with diameter = 9 inches, immersed in sea water at a sensible depth, then the electrode resistance will be halved.

At radio frequencies the impedance of the connection to ground will be that of the connecting wire only, even before the resistance of the connecting wire to the water is taken into account. The high permittivity of water will also tend to decrease impedance at RF.

Another illustration, following Lord Kelvin :

The resistance of a ground rod to soil is given by :

R = S / 2 / Pi / L * ArcSinh(2 * L / D) ohms,

where S = soil resistivity, L = rod length in metres and D is rod diameter. ArcSinh is the inverse hyperbolic Sine function you will find on your pocket scientific calculators.

So in sea water, at low frequencies, a rod 12 inches in length and a diameter of 1 inch will have a resistance of 1.2 ohms. At HF, because of the very low propagation velocity in water, propagation effects predominate and the rod must be considered as a very lossy transmission line. But its impedance to ground is still very low because Zo is very small.

So the hull of a metal boat makes an excellent ground. Just connect to it with an alligator clip at the end of a length of wire and stop worrying about it.

By the way, the practical units of resistivity in ohm-metres should be much preferred to the academic units of milli-Siemens. When dealing with milli-Siemens I find I have to stand on my head and look backwards.

1 milli-Siemens = 1000 ohm-metres.

The clock tells me it's 7.30 in the morning in Birmingham, the idle, depressed ex-industrial city of the Midlands, where there used to be 10,000 factories, now superceded by the hardworking Chinese, and I'm already half way down a bottle of Spanish Campaneo red. Hic!

Reg, G4FGQ.

3285. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 07:13:32 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <R77DChEc2UeEFAqN@ifwtech.co.uk>
Source record: 58627

Dave wrote:
>Attend class, stay awake, take notes, study, pass simple exam question.
>
>Getting the answer here or from Google is called plagiarism. You get an
>'F' if the instructor finds out.
>

It's a technology race, and the instructors are well ahead.

Dissertations can now be scanned by Google-type software that looks for copying. Whatever literature resources the student could have used, the department has access to the same and more.

A friend told of a recent example of a final year dissertation on 2.4GHz LNA design. The software easily found the un-referenced Agilent Application Note that the student had copied. They had already been warned...

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3286. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 08:51:40 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <wwdeg.1467$xO5.112@trnddc03>
Source record: 58628

Dave wrote:
> Roy Lewallen wrote:
>
>> g. beat <@ wrote:
>>
>>> "mavihot" <mavihot@gmail.com> wrote in message
>>> Please help me urgently to design this problem. Thanks...
>>> ==
>>> Sad part is that I used a Google search phrase "AGC amplifier"
>>> and found design almost to these specifications in less than 10 seconds.
>>>
>>> We're doomed
>>
>>
>>
>> At best, the next generation of airplanes will be designed by google.
>> At worst, the engineers won't even know how to find the answers there.
>>
>> Roy Lewallen, W7EL
>
>
> I see the day coming when an engineer will think a Schmidt trigger is a
> component of an UZI.
>

I see the day coming when no one will know that it is a *Schmitt* trigger.

http://en.wikipedia.org/wiki/Schmitt_trigger

3287. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 10:43:20 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <_9feg.522$6_3.86@fe10.lga>
Source record: 58629

"Tom Ring" <news0002@taring.org> wrote in message
news:4478f32d$0$6151$39cecf19@news.twtelecom.net...
> Yuri Blanarovich wrote:
>>
> As you start adding elements,
>> they add capacitance to the system and lower the overall resonant
>> frequency and impedance. Single Dipole is around 75 ohms, 3 el. Yagi
>> around 30 ohms.
>> The more elements you add, the more sensitive the design is and requires
>> more prunning for optimum performance. So just slapping elements to Inv
>> Vee dipole will not produce optimized antenna. EZNEC, 4NEC2, MMANA are an
>> excellent tools to demonstrate that and to optimize the design, give you
>> dimensions and impedance and understanding behavior of antennas, give
>> current distribution in elements, plots of impedance, gain and other
>> parameters.
>>
>
> I've never seen a yagi design center frequency move any particular
> direction when another element is added. I am sure you have a specific
> example you can give us.
>
> thanks
> tom
> K0TAR

No problem,
go to EZNEC, load NBS Yagi example
3el. resonant around 49.95 MHz
take director away, 2 el. resonant around 49.30
take reflector away, dipole left resonant around 51.05

You welcome

Yuri, K3BU

3288. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 11:01:51 UTC
From: w8ji@akorn.net
Message-ID: <1148814111.070094.192720@y43g2000cwc.googlegroups.com>
Source record: 58630

> "Jerry Martes" <j.jmartes@verizon.net> wrote
> > So, I'd expect the antenna's "resonance" to be defined by its
> > "impedance".

Right you are Jerry.

> Yuri Blanarovich wrote:
> Antenna resonance is defined by its element's electrical properties,
> "caused" by its physical properties/dimensions.
> In case of 3 el "conversion" from Inv Vee, you have to picture elements as a
> tuned circuits. If they are spaced within a fractions of a wavelength, they
> have mutual impedance, affecting each other. As you start adding elements,
> they add capacitance to the system and lower the overall resonant frequency
> and impedance. Single Dipole is around 75 ohms, 3 el. Yagi around 30 ohms.

That's not quite accurate.

The mutual coupling and effect of additional elements can shift
frequency in any dorection depending on parasitic element tuning. The
effect isn't caused by the capacitance of additional elements, it is
caused by the complex interaction or reradiated power arrivibng with a
time delay back at the original source.

This is why, with various element tuning and spacings, feed impedance
of a Yagi can change all over the map.

Same for dipole height, the reflected wave from the earth will change
feed impedance as well as shift resonant frequency.

73 tom

3289. Re: tower bolts - another question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 11:08:12 UTC
From: w8ji@akorn.net
Message-ID: <1148814492.014446.257630@j33g2000cwa.googlegroups.com>
Source record: 58631

Ralph Mowery wrote:
> What is the reason that Rohn uses two differant size bolts on the legs of
> the 25G tower ?
>
> I am sure there is a good one or they would not have done that.

Probably only the engineer at Rohn would know.

It may not be as a safety feature when mating, because Rohn 55 uses
two bolts exactly the same size in each leg. Most likely it is a stress
rating issue, and that's all the bolt size needed to do the job.

73 Tom

3290. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 11:35:01 UTC
From: w8ji@akorn.net
Message-ID: <1148816101.302896.53800@j33g2000cwa.googlegroups.com>
Source record: 58632

Roy Lewallen wrote:
> I don't know anything about Dynaplates, but if it's on the hull, it's
> very near the surface of the water. Any current it conducts will flow
> along the top of the water displaced by the hull.

That hole in the water is pretty important. It not only allows the plate a few feet down on the hull to make a good connection, it also makes the boat float better.

I'm sure sooner or later someone will tell you there isn't a hole because where they put their boat, because when they take the boat out of the water they can find the hole.

73 Tom

3291. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 11:55:27 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <VZSdnZFigs8ADeTZnZ2dnUVZ8smdnZ2d@bt.com>
Source record: 58633

An arithmetical correction. I forgot to divide by Pi.

The resistance of a hemispherical electrode, 9 inches diameter, in salt sea water, is even smaller. It is only 0.32 ohms.

Incidentally. the resistance of a flat circular disk of diameter D metres, in contact with the soil surface, is given by :

R = S / 2 / D ohms,

where S = soil resistivity in ohm-metres.

In sea water, a disk of 12 inches diameter has a resistance of 0.37 ohms. Which is negligible in comparison with the radiation resistance of a 1/4-wave vertical antenna of 36 ohms.

Careful readers should make a note of these hints and tips, free to USA citizens, in their notebooks.

My own notebooks extend from volumes A to letter S. I'm wondering who to leave them to in my Will & Last Testament.

Reg, G4FGQ.

3292. Re: tower bolts - another question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 13:36:35 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <kAk+8aRjdaeEFAvi@ifwtech.co.uk>
Source record: 58634

Dave wrote:
>"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
>news:khGdg.5472$921.2445@newsread4.news.pas.earthlink.net...
>> What is the reason that Rohn uses two differant size bolts on the legs of
>> the 25G tower ?
>>
>> I am sure there is a good one or they would not have done that.
>>
>good question, i've always thought it was to be sure the sections were fully
>mated... you couldn't put in the big bolts unless those holes lined up which
>prevented bolting up a partially mated joint.
>

The first time I encountered 25G, that particular design feature didn't
prevent me from using all the small bolts in the box. The bigger ones
were obviously meant for something else.

Americans are apparently born knowing all about Rohn tower sections; but
Englishmen need to be properly introduced.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3293. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 13:52:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gWheg.102524$dW3.95898@newssvr21.news.prodigy.com>
Source record: 58635

<w8ji@akorn.net> wrote:
> The mutual coupling and effect of additional elements can shift
> frequency in any dorection depending on parasitic element tuning. The
> effect isn't caused by the capacitance of additional elements, it is
> caused by the complex interaction or reradiated power arrivibng with a
> time delay back at the original source.
>
> This is why, with various element tuning and spacings, feed impedance
> of a Yagi can change all over the map.
>
> Same for dipole height, the reflected wave from the earth will change
> feed impedance as well as shift resonant frequency.

Same for dipole length, the reflected wave from the ends of the
dipole will change feed impedance as well as shift resonant
frequency.

The feedpoint impedance of any standing wave antenna is the
superposition of all the E-field voltages divided by the
superposition of all the H-field currents and is the result
of the interference pattern. Doing anything to change any of
the voltage or current components will change the feedpoint
impedance.
--
73, Cecil http://www.qsl.net/w5dxp

3294. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 13:57:05 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <R_heg.102526$dW3.68492@newssvr21.news.prodigy.com>
Source record: 58636

<w8ji@akorn.net> wrote:
> I'm sure sooner or later someone will tell you there isn't a hole
> because where they put their boat, because when they take the boat out
> of the water they can find the hole.

Didn't they notice that the water lever dropped?
--
73, Cecil http://www.qsl.net/w5dxp

3295. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 14:06:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <38ieg.102527$dW3.39479@newssvr21.news.prodigy.com>
Source record: 58637

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:
> The clock tells me it's 7.30 in the morning in Birmingham, the idle,
> depressed ex-industrial city of the Midlands, where there used to be
> 10,000 factories, now superceded by the hardworking Chinese, and I'm
> already half way down a bottle of Spanish Campaneo red. Hic!

Reg, FYI: "NAPA, Calif. - French and California winemakers marked the 30th anniversary of the storied Paris tasting with another sip-and-spit showdown. California won - and by more than a nose. Native wines took the top five of 10 spots, with a 1971 Ridge Monte Bello cabernet sauvignon from the Santa Cruz mountains coming out on top Wednesday."
--
73, Cecil, W5DXP

3296. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 15:23:56 UTC
From: w8ji@akorn.net
Message-ID: <1148829836.820385.47720@i40g2000cwc.googlegroups.com>
Source record: 58638

Cecil Moore wrote:
> <w8ji@akorn.net> wrote:
> > I'm sure sooner or later someone will tell you there isn't a hole
> > because where they put their boat, because when they take the boat out
> > of the water they can't find the hole.
>
> Didn't they notice that the water lever dropped?

Not usually. They fill the hole in the water with so much money they
never notice anything else.
:-)

3297. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 15:29:58 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1148829631_23703@sp6iad.superfeed.net>
Source record: 58639

Roy Lewallen wrote:
> I put this aside until I could do a little modeling. A lot of postings
> have been made in the interim, but I don't see too much in the way of
> answers. I'll try to answer some of your questions.
>
> Will wrote:
>> I want to set up a hf antenna for my sailboat.
>>
>> I have read various guides from Icom etc.
>>
>> They suggest running copper foil to a Dynaplate and use sea water as
>> the ground. How can this work when the Dynaplate is below sea water?
>
> I don't know anything about Dynaplates, but if it's on the hull, it's
> very near the surface of the water. Any current it conducts will flow
> along the top of the water displaced by the hull. If, on the other hand,
> it's really under any depth of water at all, it'll be invisible to RF
> and might as well not be there.
>

Roy, after re-reading the above comment this morning, I realized you probably meant that RF currents flowing to the plate could simply travel from the plate along the hull/water boundary to the water line, and from there, change direction and travel over the water's surface. Much as currents would travel up and down the surface of a large ocean wave (except for hull/water vs. air/water boundary differences).

If so, then your model results show the Dynaplate's location is not critical as long as it is attached to the hull and it need not be mounted at the waterline?

Is my reading of your comment correct?

Thanks.

73,
Chuck

>> Is sea water equal to copper wire radials as a RF ground system?
>
> Yes.
>
>> Does sea water make a good enough ground without radials?
>
> Yes. A foot-long wire "ground rod" below the antenna provides a nearly
> lossless ground connection at HF.

>
>> How can a piece of copper metal about 1 ft square equal several
>> radials laying on the boats deck?
>
> Radial wires are used for land based systems because of the poor
> conductivity of soil. Radial wires reduce the resistance of the path
> current takes going to and from the antenna base. Salt water is a good
> conductor and doesn't need -- and won't benefit from -- radial wires.
>
>> Why do i have to use copper foil when most other people suggest using
>> ordinary copper wire?
>
> You don't. And won't copper corrode rapidly in salt water?
>
>> Over seawater what would be the best number of radials to use
>> considering that maximum length i can run is 40 ft. I am planning to
>> use a backstay antenna with a SGC 230 Tuner.
>
> None. A simple wire down into the water is adequate. Or use a small
> plate very near the surface if you prefer.
>
> Roy Lewallen, W7EL

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3298. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 16:15:58 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127jj60c3ndfobe@corp.supernews.com>
Source record: 58640

Bart Bailey wrote:
> In Message-ID:<F5aeg.27941$QP4.12044@fed1read12> posted on Sat, 27 May
> 2006 21:58:13 -0700, Sal M. Onella wrote:
>
>> You're probably
>> referring to the model range(s) at Naval Ocean Systems Center (NOSC) on
>> Point Loma. NOSC was consolidated, I think, into Space and Naval Warfare
>> Systems Center, San Diego.
>
> I don't know what it's called now, was NOSC, then NRAD, and could be
> consolidated with SPAWAR/Lockheed these days.
> ...and yes it was for doing analyses of maritime antennas and their
> mutual effects with the ship's superstructure.

I visited and was given a tour of that site some years ago, when it was NRaD. They were also doing computer modeling with NEC-4 of the same ships and structures they were measuring. One of the engineers told me that when the results from the computer model disagreed with measurements from the physical model, they'd learned to believe the computer model.

This was a statement of just how difficult it is to make really good measurements, even when you have the best equipment. Accurate computer modeling of complex structures is no trivial task, either, but it was something they were very good at.

Roy Lewallen, W7EL

3299. Need "How to build.." antenna article Jan 06 Monitoring Times

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 16:24:08 UTC
From: mario9470@aol.com
Message-ID: <1148833448.918256.95570@y43g2000cwc.googlegroups.com>
Source record: 58641

Does anyone have a copy/scan of the "how to construct" antenna article in the Jan 2006 (I believe it was) Monitoring Times? I wanted to build this simple two wire antenna with my sons, but can't find my original issue. This one seemed fun to get younger people involved. I appreciate your time..........

3300. APRSpoint: memorial day special

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 17:39:34 UTC
From: "hxc98@yahoo.com" <hxc98@yahoo.com>
Message-ID: <1148837974.520652.311110@u72g2000cwu.googlegroups.com>
Source record: 58642

APRSPoint is the latest APRS implementation and it is being used in vehicle tracking, search and rescue, emergency communication and many other areas. It allows you to track persons or objects via rf or internet. It is constantly being updated with new features and improvements. We are offerring a special discount for this memorial day weekend. Please visit http://www.aprspoint.com for details and lots of helpful information about APRS. Thanks.

3301. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 17:53:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <psleg.86805$H71.73264@newssvr13.news.prodigy.com>
Source record: 58643

<w8ji@akorn.net> wrote:
>
> Cecil Moore wrote:
>> Didn't they notice that the water lever dropped?
>
> Not usually. They fill the hole in the water with so much money they
> never notice anything else. :-)

Darn, when are they going to invent a spellchecker that can tell the
difference between "level" and my typo, "lever"?
--
73, Cecil http://www.qsl.net/w5dxp

3302. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 18:02:56 UTC
From: dplatt@radagast.org
Message-ID: <127jpeg64l0s078@corp.supernews.com>
Source record: 58644

In article <psleg.86805$H71.73264@newssvr13.news.prodigy.com>,
Cecil Moore <mycall@hotmail.com> wrote:

>>> Didn't they notice that the water lever dropped?
>>
>> Not usually. They fill the hole in the water with so much money they
>> never notice anything else. :-)
>
>Darn, when are they going to invent a spellchecker that can tell the
>difference between "level" and my typo, "lever"?

Even a semantically-sensitive AI-type context checker would have had
problems with that one. "Water lever" is an obvious reference to the
float-and-valve arrangement in a toilet's water tank, and everybody
(including good AI systems) know very well that boats are the best
invention ever made for flushing money down a toilet.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3303. Re: Need "How to build.." antenna article Jan 06 Monitoring Times

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 18:12:00 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <PJleg.177845$bm6.35914@fed1read04>
Source record: 58645

If no one comes forward - take a look at "Easy Up Antennas" by Ed Knoll see
URL:
http://www.mfjenterprises.com/products.php?prodid=MFJ-38

Also Lots of SWL antennas at URL:
http://ac6v.com/swl.htm#ANT

--
CL -- I doubt, therefore I might be !

<mario9470@aol.com> wrote in message
news:1148833448.918256.95570@y43g2000cwc.googlegroups.com...
> Does anyone have a copy/scan of the "how to construct" antenna article
> in the Jan 2006 (I believe it was) Monitoring Times? I wanted to build
> this simple two wire antenna with my sons, but can't find my original
> issue. This one seemed fun to get younger people involved. I appreciate
> your time.....
>

3304. Re: converting from dipole/inverted vee to beam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 18:20:22 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4479e9e7$0$1017$39cecf19@news.twtelecom.net>
Source record: 58646

Yuri Blanarovich wrote:

> "Tom Ring" <news0002@taring.org> wrote in message
> news:4478f32d$0$6151$39cecf19@news.twtelecom.net...
>
>>Yuri Blanarovich wrote:
>>
>>As you start adding elements,
>>
>>>they add capacitance to the system and lower the overall resonant
>>>frequency and impedance. Single Dipole is around 75 ohms, 3 el. Yagi
>>>around 30 ohms.
>>>The more elements you add, the more sensitive the design is and requires
>>>more prunning for optimum performance. So just slapping elements to Inv
>>>Vee dipole will not produce optimized antenna. EZNEC, 4NEC2, MMANA are an
>>>excellent tools to demonstrate that and to optimize the design, give you
>>>dimensions and impedance and understanding behavior of antennas, give
>>>current distribution in elements, plots of impedance, gain and other
>>>parameters.
>>>
>>
>>I've never seen a yagi design center frequency move any particular
>>direction when another element is added. I am sure you have a specific
>>example you can give us.
>>
>>thanks
>>tom
>>K0TAR
>
>
> No problem,
> go to EZNEC, load NBS Yagi example
> 3el. resonant around 49.95 MHz
> take director away, 2 el. resonant around 49.30
> take reflector away, dipole left resonant around 51.05
>
> You welcome
>
> Yuri, K3BU
>
>

Ok, that clears it up. You said originally lower, I said no particular
direction, so the answer is the second, but you probably meant it could
go either way, correct?

I also normally work with YO on yagis, so I really don't pay much
attention to the resonance, just the real portion of the impedance.
Then I fix it when I build the DE and match.
tom
K0TAR

3305. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 19:37:10 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <127jutris552ga3@corp.supernews.com>
Source record: 58647

Dear Ian:
The worst case that I encountered was the finding of a direct copy of my own work in a student's thesis! I was not amused!

On the other hand, I recently was faculty advisor on a thesis of exceptional quality and originality. The student had performed some valuable and original work with nano-technology. The student's care in crediting each and every idea that was used and every person who helped (including skilled technicians) was a model of what should be done. The best students know, and acknowledge, their antecedents, mentors and then delineate what they have done that is new.

I offer the above as an example that not all is lost.

Warm regards, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
news:R77DChEc2UeEFAqN@ifwtech.co.uk...
> Dave wrote:
> >Attend class, stay awake, take notes, study, pass simple exam question.
> >
> >Getting the answer here or from Google is called plagiarism. You get an
> >'F' if the instructor finds out.
> >
>
> It's a technology race, and the instructors are well ahead.
>
> Dissertations can now be scanned by Google-type software that looks for
> copying. Whatever literature resources the student could have used, the
> department has access to the same and more.
>
> A friend told of a recent example of a final year dissertation on 2.4GHz
> LNA design. The software easily found the un-referenced Agilent
> Application Note that the student had copied. They had already been
> warned...
>
>
>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

3306. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 20:47:19 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <s7pMiJXXxgeEFAN+@ifwtech.co.uk>
Source record: 58649

J. Mc Laughlin wrote:
> The worst case that I encountered was the finding of a direct copy
>of my own work in a student's thesis! I was not amused!
>
Had the same happen to me: read an article in a German radio magazine
that was written exactly as I would have... no, dammit, it was written
exactly as I already HAD, in a different magazine!

> On the other hand, I recently was faculty advisor on a thesis of
>exceptional quality and originality. The student had performed some
>valuable and original work with nano-technology. The student's care in
>crediting each and every idea that was used and every person who helped
>(including skilled technicians) was a model of what should be done.
>The best students know, and acknowledge, their antecedents, mentors and
>then delineate what they have done that is new.
>
> I offer the above as an example that not all is lost.
>
Oh, indeed it isn't. The friend who told me about the copy-detection
software had spent 20 years of his life as a rock musician, but is now
headed for a First Class honours degree in RF Engineering. Needless to
say, he's an active ham.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3307. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 20:52:32 UTC
From: Dan Andersson <dan@andersson.co.uk>
Message-ID: <yYudnUpE6vgNkOfZSa8jmw@karoo.co.uk>
Source record: 58648

Felix wrote:

>
> Roy Lewallen Wrote:
>> Buck wrote:
>> . . .
>> If it performs as well as you claim it does, or if it is similar to
>> the performance of an EH per size,(for example, hypothetically
>> speaking, a 3 foot antenna performs as well as a 1/2 wave vertical
>> 20
>> meter antenna), and if the cost and skill level required for building
>> the antenna is suitable to me, I might be interested in purchasing
>> the
>> plans for your antenna.
>> . . .
>>
>> You must mean, "If it performs as well as the EH antenna claims to
>> perform." If it can do that, it's miraculous indeed. It's no trick to
>> make an antenna perform as well as an EH -- a 3 foot high (fat)
>> vertical
>> performs as well as a 3 foot high EH.
>>
>> Roy Lewallen, W7EL
>
> HERE A FEW RESULTS:
>
> QRV with RoomCap antenna on 80m
>
> On May 15th, 2006 I was QRV on 80 m during 1 1/2 hour.
> Tcvr: TS-50 (100 W PEP), QRG = 3.770 - 3.787 Mhz
> Antenna: RoomCap with 1.66m radiator length
> installed on my car. SWR = 1.0
> QTH: Peripheral part of city of Basel.
>
> Conditions: The band was weak with a lot of QRN.
>
> Here follows the contacts and the
> received signal reports:
>
> 20:10 DJ6YF, 59+10, Hans, Bielefeld
> 20:10 DL3EAI, 59, Reino, Mittetal (nr border to PA)
> 20:14 DJ6LGB, 58, Peter, L&#65533;neburg
> 20:17 G4KHM, 57, John, nr. Brighton

> 20:23 DL1JGG, 58, Renald,Plauen
> 20:30 DC4HW, 59 Walter, Lauenburg nr Lueneburg
> 20:33 DG6DAG, 59+10, Otto, Nord-Hessen nr Kassel
> 20:40 YO4RDW, 57, Romeo, Odfbesei, Rumaenien
> 20:50 F4AWH, 59, Jean-Luc, nr Besancon
> 20:55 2E0BOT, 59, John, Stratford UK
> 21:10 DF9YK, 59, Wolfgang, Mainz
> 21:11 SP8TDV, 57, Adam, Lublin, Poland
> 21:13 HB9AQA, 59+10 - +20, Ferdi, nr Lenzburg
> 21:22 9A4M, 59, Mate, Sisah, Croatia
> 21:28 G1RVP, 57, Pete, Dereham
> 21:30 DJ6MM, 59+10, Paul, Eifel
> 21:38 DK5WN, 59, Thomas nr Erfurt
> 21:39 SP1DTE 58, Luk Koloberg, Poland
> 21:40 HB9XJ, 59+10, Hans, Zuerich
> 21:43 QRT
>
>
> With best 73s
>
> Felix HB9ABX
>
>

Well well...

Whatever one believes and/or thinks about the EH-Antenna, Ted Hart, the creator and the patent holder, is honest enough to release the full design information to the ham community - to hate or to love.

The method of selling sealed envelopes is - at the best regrettable and at worst, something really different.

As the EH-Antenna is targeted to the commercial world - this antenna is an obvious way of making money out of the non-commercial hams.

I think the judgement are coming down hard on you Felix and I have to agree on this judgement. Again, nothing personal but maybe a very much middle European way of selling. As the Ham world is mainly Anglo-Saxon - it just doesn't work! I suggest you do as the EH-Antenna Inc, release the full info for homebrewers and sell a ready made version to the turn-key amateurs instead!

Cheers

Dan / M0DFI

3308. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 21:21:25 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <4vCdnX_GMaXOiefZnZ2dnUVZ_vSdnZ2d@comcast.com>
Source record: 58650

J. Mc Laughlin wrote:
> Dear Ian:
> The worst case that I encountered was the finding of a direct copy of my
> own work in a student's thesis! I was not amused!
>
> On the other hand, I recently was faculty advisor on a thesis of
> exceptional quality and originality. The student had performed some
> valuable and original work with nano-technology. The student's care in
> crediting each and every idea that was used and every person who helped
> (including skilled technicians) was a model of what should be done. The
> best students know, and acknowledge, their antecedents, mentors and then
> delineate what they have done that is new.
>
> I offer the above as an example that not all is lost.
>
> Warm regards, Mac N8TT
>

Glad to hear there is still integrity in some circles.

3309. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 22:42:12 UTC
From: Buck <not@this.time>
Message-ID: <7l9k72d573282hhch5qtc88ce050ovsefa@4ax.com>
Source record: 58651

>I think the judgement are coming down hard on you Felix and I have to agree
>on this judgement. Again, nothing personal but maybe a very much middle
>European way of selling. As the Ham world is mainly Anglo-Saxon - it just
>doesn't work! I suggest you do as the EH-Antenna Inc, release the full info
>for homebrewers and sell a ready made version to the turn-key amateurs
>instead!
>

One of the advantages of selling the ready made version is to ward off
those who don't follow construction details carefully and unfairly
generate negative reports about the antenna. From what I gather, it
is very inexpensive to build which lends to room for a large enough
markup to gain some profit.

--
73 for now
Buck
N4PGW

3310. RoomCap Antenna agreement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-28 22:43:42 UTC
From: Buck <not@this.time>
Message-ID: <fq9k721pcr41g7qsi97j7bj4en3nlf5ot9@4ax.com>
Source record: 58652

Felix:

You have an agreement buyers must abide by. Would you please post it
here so we can all read it before paying?

Buck
--
73 for now
Buck
N4PGW

3311. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 02:07:38 UTC
From: nm5k@wt.net
Message-ID: <1148868458.790890.136510@38g2000cwa.googlegroups.com>
Source record: 58653

```
20:10 DJ6YF, 59+10, Hans, Bielefeld
20:10 DL3EAI, 59, Reino, Mittetal (nr border to PA)
20:14 DJ6LGB, 58, Peter, Lüneburg
20:17 G4KHM, 57, John, nr. Brighton
20:23 DL1JGG, 58, Renald,Plauen
20:30 DC4HW, 59 Walter, Lauenburg nr Lueneburg
20:33 DG6DAG, 59+10, Otto, Nord-Hessen nr Kassel
20:40 YO4RDW, 57, Romeo, Odfbesei, Rumaenien
20:50 F4AWH, 59, Jean-Luc, nr Besancon
20:55 2E0BOT, 59, John, Stratford UK
21:10 DF9YK, 59, Wolfgang, Mainz
21:11 SP8TDV, 57, Adam, Lublin, Poland
21:13 HB9AQA, 59+10 - +20, Ferdi, nr Lenzburg
21:22 9A4M, 59, Mate, Sisah, Croatia
21:28 G1RVP, 57, Pete, Dereham
21:30 DJ6MM, 59+10, Paul, Eifel
21:38 DK5WN, 59, Thomas nr Erfurt
21:39 SP1DTE 58, Luk Koloberg, Poland
21:40 HB9XJ, 59+10, Hans, Zuerich
21:43 QRT
=-------------------------------------------------------------------------------
---
The reports are pretty lackluster I'd say... A 1/2 dipole would have
trounced that thing... It might be small, but so is the performance
judging from your reports. If I was working regional distances like
that and got 57-58 reports, I'd be wondering who cut my antenna
down.. :/
MK
```

3312. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 03:22:07 UTC
From: richardharrison@webtv.net
Message-ID: <18384-447A68DF-600@storefull-3256.bay.webtv.net>
Source record: 58655

Reg, G4FGQ wrote:
"At radio fgrequencies the impedance of the connection to ground will be that of the connecting wire only, even before the resistance of the connecting wire to the water is taken into account."

In general, Reg is correct.

I`ve installed a marine radio on a yacht, engine powered not the sailing kind. It worked well as expected and the owner paid promptly. I`ve also installed radios of various types in many vessels including large ones used on the high seas and small work boats serving the near offshore. But, I never installed an antenna using radials on a boat or ship. Radials can be hazardous to eyes and body parts at sea. For VHF, a 1/2-wave coaxial antenna has the same gain as a ground plane but needs no radials. For HF, it`s easy and effective to use a loaded vertical antenna against the sea as a return path.

Best regards, Richard Harrison, K5WZI

3313. how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 03:31:59 UTC
From: lorentsonci <lorentsonci@lycos.com>
Message-ID: <iiqk729c6gum8prtm6vi420au1o90ced1s@4ax.com>
Source record: 58654

I think somone , smarter than me , will have a answer,,,, "you are driving down the hiway and see a cell/antenna tower, it is off the hiway but you don't know how far,,,, and you would like to know how tall the tower is,,,????? Is there a simple (kiss) way to find out? thanks in advance. cl.

3314. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 05:02:29 UTC
From: dplatt@radagast.org
Message-ID: <127l0351qfae174@corp.supernews.com>
Source record: 58656

In article <iiqk729c6gum8prtm6vi420au1o90ced1s@4ax.com>,
lorentsonci <lorentsonci@lycos.com> wrote:

>I think somone , smarter than me , will have a answer,,,, "you are
>driving down the hiway and see a cell/antenna tower, it is off the
>hiway but you don't know how far,,,, and you would like to know how
>tall the tower is,,,????? Is there a simple (kiss) way to find out?
>thanks in advance. cl.

If this is a homework/exam question... well, in that case, stop reading and go hit your books, OK? You'll be better off in the long run if you learn to figure such things out for yourself.

If the tower isn't too far away (too close to the visual horizon) then you can probably treat the distance between you and the tower as a flat, horizontal surface - that is, ignore the curvature of the earth.

If that's the case, then you can calculate the distance using trig if you know the distance to the tower and the angular height of the tower. You can measure the latter with a plastic protractor.

If the road you're on is straight, there's a relatively easy way to figure out how far away the tower is from the road. Do the following:

- Drive along the road until the tower is directly off to one side - the line from you to the tower is perpendicular to the road.

- Use a protractor to measure the number of vertical degrees that the tower covers.

- Make a note of the odometer reading.

- Drive straight, on the road, until you have to look backwards at a 45 degree angle to see the base of the tower, and then stop. Use the protractor to confirm the angle, so you know right where to stop.

- Take another look at the odometer.

- The difference between the two odometer readings - that is, the distance you've driven from your starting point to your stopping point - is identical to the distance from the starting point to the tower.

- Multiply the distance you drive, by the tangent of the angle which describes the tower's apparent height at the starting point. This will be the height of the tower, plus/minus whatever errors crept in to your measurements.

- Go through the geometry to truly understand why this works.

- Use a fluorite-lens transit and a properly charged flux capacitor to confirm that there are no thermal or gravitational anomalies which might have distorted the light or the distance.

If the road is curved, or the land is hilly, or the tower is far enough away towards the horizon, then you'll need a more complex approach... e.g. go measure it, or call the owner and ask, or do a lookup in government records (FCC) to find the operating license permits for the radios on the tower.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3315. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 11:31:25 UTC
From: Dave <noone@nowhere.com>
Message-ID: <1didnVK3ba8GRufZnZ2dnUVZ_vOdnZ2d@crocker.com>
Source record: 58657

there are lots of ways depending on how close you can get to the tower and what is around it. one simple one, if you can see the base and a person or building near it hold your arm out and use a finger or pencil or something to measure the person or building then step that up the tower to see how many times taller the tower is.

"lorentsonci" <lorentsonci@lycos.com> wrote in message news:iiqk729c6gum8prtm6vi420au1o90ced1s@4ax.com...
>I think somone , smarter than me , will have a answer,,,, "you are
> driving down the hiway and see a cell/antenna tower, it is off the
> hiway but you don't know how far,,,, and you would like to know how
> tall the tower is,,,????? Is there a simple (kiss) way to find out?
> thanks in advance. cl.

3316. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 12:17:55 UTC
From: Buck <not@this.time>
Message-ID: <2fpl72pk06l16kbi8p1uudovi4qe5pvgg2@4ax.com>
Source record: 58658

On Sun, 28 May 2006 22:31:59 -0500, lorentsonci
<lorentsonci@lycos.com> wrote:

>I think somone , smarter than me , will have a answer,,,, "you are
>driving down the hiway and see a cell/antenna tower, it is off the
>hiway but you don't know how far,,,, and you would like to know how
>tall the tower is,,,????? Is there a simple (kiss) way to find out?
>thanks in advance. cl.

Short of using geometry, I can only think of one other way. research
all the cell tower manufacturing companies' catalogs and get to know
their model numbers and sizes. Then when you recognize a particular
model, you will know how tall it is.

--
73 for now
Buck
N4PGW

3317. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 12:53:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <x9Ceg.19047$fb2.18221@newssvr27.news.prodigy.net>
Source record: 58659

"lorentsonci" <lorentsonci@lycos.com> wrote:
>I think somone , smarter than me , will have a answer,,,, "you are
> driving down the hiway and see a cell/antenna tower, it is off the
> hiway but you don't know how far,,,, and you would like to know how
> tall the tower is,,,????? Is there a simple (kiss) way to find out?
> thanks in advance. cl.

Here's a technique that I learned 60 years ago in Cub Scouts.
With your back to the tower, bend over and look at the tower between
your legs. Walk backwards toward the tower until you can't see the
top of the tower. The distance that you are from the tower is close to
the height of the tower.
--
73, Cecil http://www.qsl.net/w5dxp

3318. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 13:21:41 UTC
From: George <forvmman@msn.com>
Message-ID: <1148908901.169849.196320@i39g2000cwa.googlegroups.com>
Source record: 58660

How about a design that is small in size, loads the feedline, lights up
the shack, and fries my pacemaker? RF has got to go somewhere! It is a
good bet that if the military and commercial users have not or do not
accept the super design, then I think I will save my $ for the more
accepted, tried and true antenna.
New ideas need to be consistant with the accepted laws of physics
unless what is being proposed is so radical that it breaks new ground.
At that point it is the job of the inventor to lay out the theory and
application for peer review. Otherwise, we spend a lot of time shooting
the bull.

nm5k@wt.net wrote:
> 20:10 DJ6YF, 59+10, Hans, Bielefeld
> 20:10 DL3EAI, 59, Reino, Mittetal (nr border to PA)
> 20:14 DJ6LGB, 58, Peter, Lüneburg
> 20:17 G4KHM, 57, John, nr. Brighton
> 20:23 DL1JGG, 58, Renald,Plauen
> 20:30 DC4HW, 59 Walter, Lauenburg nr Lueneburg
> 20:33 DG6DAG, 59+10, Otto, Nord-Hessen nr Kassel
> 20:40 YO4RDW, 57, Romeo, Odfbesei, Rumaenien
> 20:50 F4AWH, 59, Jean-Luc, nr Besancon
> 20:55 2E0BOT, 59, John, Stratford UK
> 21:10 DF9YK, 59, Wolfgang, Mainz
> 21:11 SP8TDV, 57, Adam, Lublin, Poland
> 21:13 HB9AQA, 59+10 - +20, Ferdi, nr Lenzburg
> 21:22 9A4M, 59, Mate, Sisah, Croatia
> 21:28 G1RVP, 57, Pete, Dereham
> 21:30 DJ6MM, 59+10, Paul, Eifel
> 21:38 DK5WN, 59, Thomas nr Erfurt
> 21:39 SP1DTE 58, Luk Koloberg, Poland
> 21:40 HB9XJ, 59+10, Hans, Zuerich
> 21:43 QRT
> =----------

> The reports are pretty lackluster I'd say... A 1/2 dipole would have
> trounced that thing... It might be small, but so is the performance
> judging from your reports. If I was working regional distances like
> that and got 57-58 reports, I'd be wondering who cut my antenna
> down.. :/
> MK

3319. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 13:36:36 UTC
From: Jon Kåre Hellan <dev@null.com>
Message-ID: <1mpshxq7ff.fsf@persaunet.uninett.no>
Source record: 58661

Roy Lewallen <w7el@eznec.com> writes:

> bob wrote:
> > I dont have NEC4 is it too much to ask you to run the
> > model. Radials over sea water versus a direct connection?
>
> Sure. How many, how high, and how long? The foot-long wire produces
> efficiency of virtually unmeasurably close to 100%. So radials can't
> be significantly better. What sort of efficiency are you expecting
> from the radials?

How does a copper wire behave when submerged in salt water? Won't it corrode
rapidly, so that you don't get a metal to salt water connection, but
a capacitive coupling across copper oxide?

Not a rhetorical question, btw. I really don't know the answer.

73
LA4RT Jon

3320. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 13:48:38 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <WYCeg.9080$VL2.2683@trnddc06>
Source record: 58662

"lorentsonci" <lorentsonci@lycos.com> wrote in message
news:iiqk729c6gum8prtm6vi420au1o90ced1s@4ax.com...
>I think somone , smarter than me , will have a answer,,,, "you are
> driving down the hiway and see a cell/antenna tower, it is off the
> hiway but you don't know how far,,,, and you would like to know how
> tall the tower is,,,????? Is there a simple (kiss) way to find out?
> thanks in advance. cl.

Hi cl

Is it OK to wait till you arent driving to measure it??

Jerry

3321. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 13:53:33 UTC
From: George <forvmman@msn.com>
Message-ID: <1148910813.102829.315910@y43g2000cwc.googlegroups.com>
Source record: 58663

The only other thing you missed Dave, is dropping and measuring a plumb line from a hot air baloon while stationary above the tower. Of course the FCC will want you to calculate RF exposure to those in the baloon, but this is another low tec / low math approach! Make sure you bring a sliderule since the RF might cook a calculator. Oh yes, you do need to know how to use that sliderule as well. WB3HUH

3322. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 14:01:35 UTC
From: hayseed <hayseed@rainmaker.com>
Message-ID: <447afe59$0$23761$a82e2bb9@reader.athenanews.com>
Source record: 58664

Tried the Cub Scout method but keep coming up with a length of 6 inches!

hi hi hi hi hi hi

3323. Re: Need "How to build.." antenna article Jan 06 Monitoring Times

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 14:12:59 UTC
From: chuck <chuck_brown@cbfamily.net>
Message-ID: <447B0169.1D106A16@cbfamily.net>
Source record: 58665

MT will sell you a back issue give them a call.

3324. Re: Special Tower Bolts

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 14:15:32 UTC
From: chuck <chuck_brown@cbfamily.net>
Message-ID: <447B0202.CF96B438@cbfamily.net>
Source record: 58666

http://www.radiancorp.com/

3325. Re: SOLD ebay: Icom 756 PROII Available, Nice !

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 14:16:15 UTC
From: chuck <chuck_brown@cbfamily.net>
Message-ID: <447B022D.19F62BF1@cbfamily.net>
Source record: 58667
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.digital.misc,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.swap

ha ha ha

3326. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 14:17:10 UTC
From: George <forvmman@msn.com>
Message-ID: <1148912230.505912.193290@j55g2000cwa.googlegroups.com>
Source record: 58668

Hey Dave.... From where do you suppose the instructor got the question?
Besides we really don't know if the class is in EE or on computer web
sites and the internet!.....WB3HUH

3327. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 14:46:07 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <-K2dnedb4cKblObZnZ2dnUVZ_s-dnZ2d@comcast.com>
Source record: 58669

"lorentsonci" <lorentsonci@lycos.com> wrote in message
news:iiqk729c6gum8prtm6vi420au1o90ced1s@4ax.com...
>I think somone , smarter than me , will have a answer,,,, "you are
> driving down the hiway and see a cell/antenna tower, it is off the
> hiway but you don't know how far,,,, and you would like to know how
> tall the tower is,,,????? Is there a simple (kiss) way to find out?
> thanks in advance. cl.

Measure the length of the shadow, and record the time. Look up what the
height of the sun was at that pouint in time from tables, and use geometry.

Tam/WB2TT

3328. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 15:16:56 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97D2547F9E0ECspectrumhogstarbandn@198.186.192.196>
Source record: 58670

>
> Measure the length of the shadow, and record the time. Look up what
> the height of the sun was at that pouint in time from tables, and use
> geometry.
>

The original poster didn't indicate he could get to the tower, but if he could, there's a better way than above that doesn't require "tables". .... simply measure the length of the tower's shadow. Then with a yardstick, or equivilent, measure the length of the vertical yardsitck's shadow. You now know the height and shadow length of the yardstick. You also know the shadow length of the tower. The two are proportional.

The height of the yardstick divided by the length of its shadow is equal to the height of the tower divided by the length of its shadow. A simple algebraic expression ... easy to solve for the height of the tower.

Ed K7AAT

3329. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 15:18:16 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <WgEeg.177916$bm6.141498@fed1read04>
Source record: 58671

Ask the HOA - They will measure it to the microinch, then tear it down.
Ask the City (County) Engineer -- they will respond "Ain't no tower there"

Seriously -- how about this one

Wait for a sunny day! Measure your shadow. Stanley tools makes a device for this (;-). Measure the tower's shadow. Calculate the tower height using the following:

Height of tree Your height

=

Tree's shadow Your shadow

Alternatively, you can place a calibrated pole upright and measure it's shadow in place of measuring your shadow.

About 2200 years ago a greek guy - Eratosthenes used geometry to estimate the circumference of the Earth. Dog gone if he didn't come close!
URL: http://en.wikipedia.org/wiki/Eratosthenes

--
CL -- I doubt, therefore I might be !
Lo! I cast a shadow, therfore I be !

"Tam/WB2TT" <t-tammaru@c0mca$t.net> wrote in message
news:-K2dnedb4cKblObZnZ2dnUVZ_s-dnZ2d@comcast.com...
>
> "lorentsonci" <lorentsonci@lycos.com> wrote in message
> news:iiqk729c6gum8prtm6vi420au1o90ced1s@4ax.com...
>>I think somone , smarter than me , will have a answer,,,, "you are
>> driving down the hiway and see a cell/antenna tower, it is off the
>> hiway but you don't know how far,,,, and you would like to know how
>> tall the tower is,,,????? Is there a simple (kiss) way to find out?

3330. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 15:37:03 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <y5CdnXST996BiObZRVn-gg@comcast.com>
Source record: 58672

A Boy Scout technique from 55 years ago comes to mind.

It requires one arm, one thumb, and two eyes.

It needs a little geometry associated with similar triangles.

Extend your arm with one eye closed and your thumb at one extreme of what you want to estimate. Open that eye and close the other. Estimate the difference in distance between the two observations. Multiply that distance by 10. Not bad for a first 'gesstimate'.

BTW, do the Boy Scout still teach this?

/s/ DD

lorentsonci wrote:

> I think somone , smarter than me , will have a answer,,,, "you are
> driving down the hiway and see a cell/antenna tower, it is off the
> hiway but you don't know how far,,,, and you would like to know how
> tall the tower is,,,????? Is there a simple (kiss) way to find out?
> thanks in advance. cl.

3331. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 16:26:54 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrne7m8f5.kon.bit-bucket@shell.config.com>
Source record: 58673

On Sun, 28 May 2006 22:31:59 -0500, lorentsonci wrote:
> I think somone , smarter than me , will have a answer,,,, "you are
> driving down the hiway and see a cell/antenna tower, it is off the
> hiway but you don't know how far,,,, and you would like to know how
> tall the tower is,,,????? Is there a simple (kiss) way to find out?
> thanks in advance. cl.

If in the U.S.A., contact the FCC and get the information from their
database. Elsewise, contact the wireless regulatory agency of the
country that the tower is located in.

Jonesy
--
Marvin L Jones | jonz | W3DHJ | linux
38.24N 104.55W | @ config.com | Jonesy | OS/2
*** Killfiling google posts: <http//jonz.net/ng.htm>

3332. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 16:46:25 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <127m9b12ft6rod2@corp.supernews.com>
Source record: 58674

Allodoxaphobia wrote:
> On Sun, 28 May 2006 22:31:59 -0500, lorentsonci wrote:
>
>>I think somone , smarter than me , will have a answer,,,, "you are
>>driving down the hiway and see a cell/antenna tower, it is off the
>>hiway but you don't know how far,,,, and you would like to know how
>>tall the tower is,,,????? Is there a simple (kiss) way to find out?
>>thanks in advance. cl.
>
>
> If in the U.S.A., contact the FCC and get the information from their
> database. Elsewise, contact the wireless regulatory agency of the
> country that the tower is located in.
>
> Jonesy
In the USA if it has a light on it then it is over 200 FT tall. If there is no light on the tower it is less than 200ft tall. 200 ft is the magic number for the FAA and the FCC for tower lighting.
If you can see the section joins then count them an mult by 20 ft. 20 ft is the height of the average tower section. Your tower could use 30 or 40 ft sections though. You will have to inspect the tower up close to estimate the height of a section.

Dave N

3333. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 17:14:33 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <q7mdnURdKqFNtubZnZ2dnUVZ_vmdnZ2d@comcast.com>
Source record: 58675

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns97D2547F9E0ECspectrumhogstarbandn@198.186.192.196...
>
>>
>> Measure the length of the shadow, and record the time. Look up what
>> the height of the sun was at that pouint in time from tables, and use
>> geometry.
>>
>
> The original poster didn't indicate he could get to the tower, but if he
> could, there's a better way than above that doesn't require "tables".
> .... simply measure the length of the tower's shadow. Then with a
> yardstick, or equivilent, measure the length of the vertical yardsitck's
> shadow. You now know the height and shadow length of the yardstick.
> You
> also know the shadow length of the tower. The two are proportional.
>
> The height of the yardstick divided by the length of its shadow is equal
> to the height of the tower divided by the length of its shadow. A simple
> algebraic expression ... easy to solve for the height of the tower.
>
>
> Ed K7AAT
>
>
>
You are right, I knew there was a trick to it, but couldn't remember it.

Tam

3334. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 17:35:02 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <3rnrk3-4so.ln1@mail.specsol.com>
Source record: 58576

David G. Nagel <nagel@core.com> wrote:
> Allodoxaphobia wrote:
> > On Sun, 28 May 2006 22:31:59 -0500, lorentsonci wrote:
> >
> >>I think somone , smarter than me , will have a answer,,,, "you are
> >>driving down the hiway and see a cell/antenna tower, it is off the
> >>hiway but you don't know how far,,,, and you would like to know how
> >>tall the tower is,,,????? Is there a simple (kiss) way to find out?
> >>thanks in advance. cl.
> >
> >
> > If in the U.S.A., contact the FCC and get the information from their
> > database. Elsewise, contact the wireless regulatory agency of the
> > country that the tower is located in.
> >
> > Jonesy
> In the USA if it has a light on it then it is over 200 FT tall. If there
> is no light on the tower it is less than 200ft tall. 200 ft is the magic
> number for the FAA and the FCC for tower lighting.
> If you can see the section joins then count them an mult by 20 ft. 20 ft
> is the height of the average tower section. Your tower could use 30 or
> 40 ft sections though. You will have to inspect the tower up close to
> estimate the height of a section.

> Dave N

Almost right, over 200 feet or close to an airport or heliport, in
which case the max unlighted height slopes to zero at the airport
and follows a slope that depends on the type of airport.

Title 47, Part 17.21 and Part 17.17

--
Jim Pennino

Remove .spam.sux to reply.

3335. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 18:03:31 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <127mdrjcpqnqv86@corp.supernews.com>
Source record: 58577

jimp@specsol.spam.sux.com wrote:

> David G. Nagel <nagel@core.com> wrote:
>
>>Allodoxaphobia wrote:
>>
>>>On Sun, 28 May 2006 22:31:59 -0500, lorentsonci wrote:
>>>
>>>
>>>>I think somone , smarter than me , will have a answer,,,, "you are
>>>>driving down the hiway and see a cell/antenna tower, it is off the
>>>>hiway but you don't know how far,,,, and you would like to know how
>>>>tall the tower is,,,????? Is there a simple (kiss) way to find out?
>>>>thanks in advance. cl.
>>>
>>>
>>>If in the U.S.A., contact the FCC and get the information from their
>>>database. Elsewise, contact the wireless regulatory agency of the
>>>country that the tower is located in.
>>>
>>>Jonesy
>>
>>In the USA if it has a light on it then it is over 200 FT tall. If there
>>is no light on the tower it is less than 200ft tall. 200 ft is the magic
>>number for the FAA and the FCC for tower lighting.
>>If you can see the section joins then count them an mult by 20 ft. 20 ft
>>is the height of the average tower section. Your tower could use 30 or
>>40 ft sections though. You will have to inspect the tower up close to
>>estimate the height of a section.
>
>
>>Dave N
>
>
> Almost right, over 200 feet or close to an airport or heliport, in
> which case the max unlighted height slopes to zero at the airport
> and follows a slope that depends on the type of airport.
>
> Title 47, Part 17.21 and Part 17.17
>
Correct.... But most cell towers are not near airports.

3336. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 18:25:02 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <gcqrk3-k03.ln1@mail.specsol.com>
Source record: 58578

David G. Nagel <nagel@core.com> wrote:
> jimp@specsol.spam.sux.com wrote:

> > David G. Nagel <nagel@core.com> wrote:
> >
> >>Allodoxaphobia wrote:
> >>
> >>>On Sun, 28 May 2006 22:31:59 -0500, lorentsonci wrote:
> >>>
> >>>
> >>>>I think somone , smarter than me , will have a answer,,,, "you are
> >>>>driving down the hiway and see a cell/antenna tower, it is off the
> >>>>hiway but you don't know how far,,,, and you would like to know how
> >>>>tall the tower is,,,????? Is there a simple (kiss) way to find out?
> >>>>thanks in advance. cl.
> >>>
> >>>
> >>>If in the U.S.A., contact the FCC and get the information from their
> >>>database. Elsewise, contact the wireless regulatory agency of the
> >>>country that the tower is located in.
> >>>
> >>>Jonesy
> >>
> >>In the USA if it has a light on it then it is over 200 FT tall. If there
> >>is no light on the tower it is less than 200ft tall. 200 ft is the magic
> >>number for the FAA and the FCC for tower lighting.
> >>If you can see the section joins then count them an mult by 20 ft. 20 ft
> >>is the height of the average tower section. Your tower could use 30 or
> >>40 ft sections though. You will have to inspect the tower up close to
> >>estimate the height of a section.
> >>
> >>
> >>Dave N
> >>
> >>
> > Almost right, over 200 feet or close to an airport or heliport, in
> > which case the max unlighted height slopes to zero at the airport
> > and follows a slope that depends on the type of airport.
> >
> > Title 47, Part 17.21 and Part 17.17
> >
> Correct.... But most cell towers are not near airports.

Correct... But the protected area is 12.2 kilometers in diameter which
means a good number are.

--
Jim Pennino

Remove .spam.sux to reply.

3337. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 18:42:44 UTC
From: "Dan, danl, Redbeard uh Greybeard now" <danl4X@charter.net>
Message-ID: <c2gm7258mropv1ct1kcbbv8h18b29bl6q1@4ax.com>
Source record: 58579

On 29 May 2006 06:21:41 -0700, "George" <forvmman@msn.com> wrote:

>How about a design that is small in size, loads the feedline, lights up
>the shack, and fries my pacemaker? RF has got to go somewhere! It is a
>good bet that if the military and commercial users have not or do not
>accept the super design, then I think I will save my $ for the more
>accepted, tried and true antenna.
>New ideas need to be consistant with the accepted laws of physics
>unless what is being proposed is so radical that it breaks new ground.
>At that point it is the job of the inventor to lay out the theory and
>application for peer review. Otherwise, we spend a lot of time shooting
>the bull.

Yes but after we shoot the bull the barbecue is so much fun! :<}

>
>nm5k@wt.net wrote:
>> 20:10 DJ6YF, 59+10, Hans, Bielefeld
>> 20:10 DL3EAI, 59, Reino, Mittetal (nr border to PA)
>> 20:14 DJ6LGB, 58, Peter, Lï¿½neburg
>> 20:17 G4KHM, 57, John, nr. Brighton
>> 20:23 DL1JGG, 58, Renald,Plauen
>> 20:30 DC4HW, 59 Walter, Lauenburg nr Lueneburg
>> 20:33 DG6DAG, 59+10, Otto, Nord-Hessen nr Kassel
>> 20:40 YO4RDW, 57, Romeo, Odfbesei, Rumaenien
>> 20:50 F4AWH, 59, Jean-Luc, nr Besancon
>> 20:55 2E0BOT, 59, John, Stratford UK
>> 21:10 DF9YK, 59, Wolfgang, Mainz
>> 21:11 SP8TDV, 57, Adam, Lublin, Poland
>> 21:13 HB9AQA, 59+10 - +20, Ferdi, nr Lenzburg
>> 21:22 9A4M, 59, Mate, Sisah, Croatia
>> 21:28 G1RVP, 57, Pete, Dereham
>> 21:30 DJ6MM, 59+10, Paul, Eifel
>> 21:38 DK5WN, 59, Thomas nr Erfurt
>> 21:39 SP1DTE 58, Luk Koloberg, Poland
>> 21:40 HB9XJ, 59+10, Hans, Zuerich
>> 21:43 QRT
>> =---

>> The reports are pretty lackluster I'd say... A 1/2 dipole would have
>> trounced that thing... It might be small, but so is the performance
>> judging from your reports. If I was working regional distances like
>> that and got 57-58 reports, I'd be wondering who cut my antenna
>> down.. :/
>> MK

I've learned that I don't suffer from insanity, I enjoy it! (The hell with my X-wife!)
danl4x@charter.net
Remove the x for e-mail reply
www.outdoorfrontiers.com
www.SecretWeaponLures.com
A proud charter member of "PETAF", People for Eating Tasty Animals and Fish!!!

3338. Motor for remote controlled tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 18:47:24 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97D2782F52835spectrumhogstarbandn@198.186.192.196>
Source record: 58580

I'm considering building a remote controlled balanced tuner. Some type
of low RPM motor 12V reversable motor is what I have in mind to accomplish
the tuning. I will have two fairly hefty variable caps to turn along with
a moderatly sized roller inductor.

Can anyone here recommend a particular type motor, and a reasonable
source for the the type of motors I need? Tnx.

Ed K7AAT

3339. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 19:10:26 UTC
From: Morse or Re-Morse <see@double.you>
Message-ID: <CGHeg.6657$921.1590@newsread4.news.pas.earthlink.net>
Source record: 58581

lorentsonci <lorentsonci@lycos.com> wrote in
news:iiqk729c6gum8prtm6vi420au1o90ced1s@4ax.com:

> I think somone , smarter than me , will have a answer,,,, "you are
> driving down the hiway and see a cell/antenna tower, it is off the
> hiway but you don't know how far,,,, and you would like to know how
> tall the tower is,,,????? Is there a simple (kiss) way to find out?
> thanks in advance. cl.

That's a tough one, Towers get taller the closer you get to them. You need
to contact the manufacturer or installer.

m

3340. Re: Motor for remote controlled tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 19:27:33 UTC
From: dplatt@radagast.org
Message-ID: <127mip5g6nvu441@corp.supernews.com>
Source record: 58582

> I'm considering building a remote controlled balanced tuner. Some type
>of low RPM motor 12V reversable motor is what I have in mind to accomplish
>the tuning. I will have two fairly hefty variable caps to turn along with
>a moderatly sized roller inductor.

What you're probably going to want is a gearhead motor, with a relatively low RPM rating (1 - 4 RPM is probably the right sort of range). These have plenty of torque, and you can probably slow down the rotation even further by using a lower DC voltage or by pulse-width modulating a 12 VDC drive.

It'd be worth checking out a 24 VDC gearhead motor - it would run at a slow speed on 12 VDC but might well have plenty of torque to rotate a cap or inductor.

You'll need some sort of external limit-switch arrangement (e.g. lever-type microswitches with bypass diodes) to cut off the drive current when the inductor reaches the end of its range - gearhead motors have more than enough torque to drive the inductor into its stops and damage it.

> Can anyone here recommend a particular type motor, and a reasonable
>source for the the type of motors I need? Tnx.

Check the various surplus outfits on-line: All Electronics, Ocean State Electronics, Electronics Goldmine, etc.. Going prices for DC gearhead motors seem to be in the $10-$15 range. Goldmine has some small gearhead motors (3 RPM at 6 volts) for $12, which might do the job.

Also, check local surplus-machinery stores if there are any in your area, and local hamfests/swapmeets. I picked up a bunch of 24 VDC gearhead motors for a buck apiece at one of the latter.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3341. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 20:17:27 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <127mll86mrd1o42@corp.supernews.com>
Source record: 58583

Here is an example of a tall, top loaded tower:

http://www.bslb.org/photo/20050813/nikon/images/DSC_1806.jpg

http://www.bslb.org/photo/20050813/nikon/images/DSC_1785.jpg

Looks like SSV tower with 20 foot sections. I estimate that the near tower
is a little over 200 feet high. Also looks like brackish water in the
foreground and far west location.

73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Dave Platt" <dplatt@radagast.org> wrote in message
news:127l0351qfae174@corp.supernews.com...
> In article <iiqk729c6gum8prtm6vi420au1o90ced1s@4ax.com>,
> lorentsonci <lorentsonci@lycos.com> wrote:
>
> >I think somone , smarter than me , will have a answer,,,, "you are
> >driving down the hiway and see a cell/antenna tower, it is off the
> >hiway but you don't know how far,,,, and you would like to know how
> >tall the tower is,,,????? Is there a simple (kiss) way to find out?
> >thanks in advance. cl.
>
> If this is a homework/exam question... well, in that case, stop
> reading and go hit your books, OK? You'll be better off in the long
> run if you learn to figure such things out for yourself.
>
>
>
> If the tower isn't too far away (too close to the visual horizon) then
> you can probably treat the distance between you and the tower as a
> flat, horizontal surface - that is, ignore the curvature of the earth.
>
> If that's the case, then you can calculate the distance using
> trig if you know the distance to the tower and the angular height of
> the tower. You can measure the latter with a plastic protractor.
>
> If the road you're on is straight, there's a relatively easy way to
> figure out how far away the tower is from the road. Do the following:
>
> - Drive along the road until the tower is directly off to one side -
> the line from you to the tower is perpendicular to the road.
>

> - Use a protractor to measure the number of vertical degrees that the
> tower covers.
>
> - Make a note of the odometer reading.
>
> - Drive straight, on the road, until you have to look backwards at a
> 45 degree angle to see the base of the tower, and then stop. Use
> the protractor to confirm the angle, so you know right where to stop.
>
> - Take another look at the odometer.
>
> - The difference between the two odometer readings - that is, the
> distance you've driven from your starting point to your stopping
> point - is identical to the distance from the starting point to the
> tower.
>
> - Multiply the distance you drive, by the tangent of the angle which
> describes the tower's apparent height at the starting point. This
> will be the height of the tower, plus/minus whatever errors crept
> in to your measurements.
>
> - Go through the geometry to truly understand why this works.
>
> - Use a fluorite-lens transit and a properly charged flux capacitor to
> confirm that there are no thermal or gravitational anomalies which
> might have distorted the light or the distance.
>
> If the road is curved, or the land is hilly, or the tower is far
> enough away towards the horizon, then you'll need a more complex
> approach... e.g. go measure it, or call the owner and ask, or do a
> lookup in government records (FCC) to find the operating license
> permits for the radios on the tower.
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

3342. Re: Motor for remote controlled tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 20:27:06 UTC
From: Dave <noone@nowhere.com>
Message-ID: <FJ-dnU_uAcK3xObZ4p2dnA@crocker.com>
Source record: 58584

electric screw driver.

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message
news:Xns97D2782F52835spectrumhogstarbandn@198.186.192.196...
>
>
> I'm considering building a remote controlled balanced tuner. Some type
> of low RPM motor 12V reversable motor is what I have in mind to accomplish
> the tuning. I will have two fairly hefty variable caps to turn along with
> a moderatly sized roller inductor.
>
> Can anyone here recommend a particular type motor, and a reasonable
> source for the the type of motors I need? Tnx.
>
>
> Ed K7AAT

3343. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-29 22:41:21 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrne7muda.222h.bit-bucket@shell.config.com>
Source record: 58585

```
On Mon, 29 May 2006 13:03:31 -0500, David G. Nagel wrote:
> jimp@specsol.spam.sux.com wrote:
>> David G. Nagel <nagel@core.com> wrote:
>>>Allodoxaphobia wrote:
>>>>On Sun, 28 May 2006 22:31:59 -0500, lorentsonci wrote:
>>>>
>>>>>I think somone , smarter than me , will have a answer,,,, "you are
>>>>>driving down the hiway and see a cell/antenna tower, it is off the
>>>>>hiway but you don't know how far,,,, and you would like to know how
>>>>>tall the tower is,,,????? Is there a simple (kiss) way to find out?
>>>>>thanks in advance. cl.
>>>>
>>>>If in the U.S.A., contact the FCC and get the information from their
>>>>database. Elsewise, contact the wireless regulatory agency of the
>>>>country that the tower is located in.
>>>>
>>>>Jonesy
>>>
>>>In the USA if it has a light on it then it is over 200 FT tall. If there
>>>is no light on the tower it is less than 200ft tall. 200 ft is the magic
>>>number for the FAA and the FCC for tower lighting.
>>>If you can see the section joins then count them an mult by 20 ft. 20 ft
>>>is the height of the average tower section. Your tower could use 30 or
>>>40 ft sections though. You will have to inspect the tower up close to
>>>estimate the height of a section.
>>
>>>Dave N
>>
>> Almost right, over 200 feet or close to an airport or heliport, in
>> which case the max unlighted height slopes to zero at the airport
>> and follows a slope that depends on the type of airport.
>>
>> Title 47, Part 17.21 and Part 17.17
>>
> Correct.... But most cell towers are not near airports.

And, most cell towers are not in the U.S.A.

Jonesy
```

3344. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 01:25:50 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1148951767_33095@sp6iad.superfeed.net>
Source record: 58586

Jon Kï¿½re Hellan wrote:
> Roy Lewallen <w7el@eznec.com> writes:
>
>> bob wrote:
>>> I dont have NEC4 is it too much to ask you to run the
>>> model. Radials over sea water versus a direct connection?
>> Sure. How many, how high, and how long? The foot-long wire produces
>> efficiency of virtually unmeasurably close to 100%. So radials can't
>> be significantly better. What sort of efficiency are you expecting
>> from the radials?
>
> How does a copper wire behave when submerged in salt water? Won't it corrode
> rapidly, so that you don't get a metal to salt water connection, but
> a capacitive coupling across copper oxide?
>
> Not a rhetorical question, btw. I really don't know the answer.
>
> 73
> LA4RT Jon

The copper alloys widely used in wires are quite resistant to corrosion.
Even when immersed in pure seawater, their corrosion rate there is on
the order of 0.025 mm/year. Unfortunately polluted waters can increase
that rate.

The metal to water interface may indeed be affected by the corrosion
layer. This problem is frequently seen by electricians when installing
grounding rods in the earth. However, I imagine the capacitance in this
case would provide sufficient coupling at RF so that it would not be a
problem. Biofouling might be of greater concern if corrosion does not
occur fast enough.

73,
Chuck
NT3G

----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3345. Interlacing 2 meter and 70 cm beams

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 02:03:46 UTC
From: VK3XL <VK3XL.28lp1m@news.radiobanter.com>
Message-ID: <VK3XL.28lp1m@news.radiobanter.com>
Source record: 58589

Hi all, I am currently building a new 2 meter beam for SSB. I am using the DL6WU design on a 6 meter boom. While working on the antenna last night a thought struck me "why not interlace a 70 cm beam on the same boom"?
so here is the question, does any one have any data on interaced beams in particular the degredation of performance of the equivelent monoband yagis.
There are a number of reasons that this interlaced beam idea is appealing to me (mostly mechanical) but I am not sure how badly the gain may be effected. Does anyone have real data on the issue?
many thanks
Mike
VK3XL

--
VK3XL

3346. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 02:04:25 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <EK6dnSdjKMa6NebZRVn-uA@adelphia.com>
Source record: 58587

Cecil Moore wrote:
> Slow Code wrote:
>
>> I predicted and warned you all this would happen, but none of you
>> wouldn't
>> listen.
>
>
> If none of us wouldn't listen, doesn't that mean that
> all of us did listen?

Good one Cecil. But I would hope that if the rraa regulars don't want this group to turn into the stinking cesspool that rrap has become, we would try to ignore this stuff.

groups trimmed....

- Mike -

3347. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 02:17:09 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <447bab25$0$1006$39cecf19@news.twtelecom.net>
Source record: 58588

chuck wrote:

>
>
> The copper alloys widely used in wires are quite resistant to corrosion.
> Even when immersed in pure seawater, their corrosion rate there is on
> the order of 0.025 mm/year. Unfortunately polluted waters can increase
> that rate.
>

What then, would be polluted water? Salt water seems polluted enough.

tom
K0TAR

3348. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 04:06:40 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <kxPeg.28035$QP4.18592@fed1read12>
Source record: 58590

"lorentsonci" <lorentsonci@lycos.com> wrote in message
news:iiqk729c6gum8prtm6vi420au1o90ced1s@4ax.com...
> I think somone , smarter than me , will have a answer,,,, "you are
> driving down the hiway and see a cell/antenna tower, it is off the
> hiway but you don't know how far,,,, and you would like to know how
> tall the tower is,,,????? Is there a simple (kiss) way to find out?
> thanks in advance. cl.

This can be done using a barometer.

Drop the barometer from the top of the tower, timing the fall.
The tower height in feet is 16 times the square of the time in seconds.

Alternatively, offer to give the barometer to the tower's owner in exchange
for telling you the height of the tower.

3349. Re: seperation in lie of a duplexer at 222 mhz band

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 04:15:07 UTC
From: Ed Bailen <n5kzw@arrl.net>
Message-ID: <m9hn725tvpptrftskdcih1617ku5f1tq7j@4ax.com>
Source record: 58591

There is a local repeater system here that was put together by an impoverished college student many years ago. He didn't have much money for duplexers, but he did have the gift of persuasion. He was able to talk his way on to 4 towers scattered about town. He has transmitters and receivers for 6m, 2m, 1.25m, and 75cm spread over the four towers, all cross-linked. No tower has a transmitter and a receiver on the same band. Each tower is 15 to 20 miles from the next tower.

Ed

On 21 May 2006 14:17:19 -0700, "an old friend" <kb9rqz@yahoo.com> wrote:

>haing gotten many of the peices of a 222 band repater and wanting to
>put it on the air how much sepertion is required to avoid a paying the
>price of a duplexer at 22 band
>
>any assiatnce welcome

3350. Re: Interlacing 2 meter and 70 cm beams

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 04:39:59 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <z0Qeg.28036$QP4.148@fed1read12>
Source record: 58592

"VK3XL" <VK3XL.28lp1m@news.radiobanter.com> wrote in message
news:VK3XL.28lp1m@news.radiobanter.com...
>
> Hi all, I am currently building a new 2 meter beam for SSB. I am using
> the DL6WU design on a 6 meter boom. While working on the antenna last
> night a thought struck me "why not interlace a 70 cm beam on the same
> boom"?
> so here is the question, does any one have any data on interaced beams
> in particular the degredation of performance of the equivelent monoband
> yagis.
> There are a number of reasons that this interlaced beam idea is
> appealing to me (mostly mechanical) but I am not sure how badly the
> gain may be effected. Does anyone have real data on the issue?
> many thanks
> Mike
> VK3XL

Some help: I saw one for sale at HRO a few years ago. Might have been this
one:

http://www.eham.net/reviews/detail/3297

Note also that many VHF TV antennas are this way; the low-band elements for
55 - 88 MHz share the boom with the high band elements for 172 - 216 MHz.

These two bands are approximately in a 1 : 3 ratio, as are 2M & 70cm.

3351. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 08:00:12 UTC
From: Mike Monett <No@email.adr>
Message-ID: <Xns97D328B0E4D25Noemailadr@208.49.80.251>
Source record: 58593

chuck <nospam@nospam.net> wrote:

> The copper alloys widely used in wires are quite resistant to corrosion.

[...]

> 73,
> Chuck
> NT3G

I don't know about corrosion resistance, but the copper wire used in electrical conductors is very high purity. This is needed since any contaminants reduce the conductivity. Here are a few quick references:

Copper is made with different purities depending on the application. The highest grade copper is electrical grade. It is 99.99% pure and is used for electrical cables because it has the best electrical conductivity. Electrical grade scrap must never be mixed with any of the lower purity grades such as plumbing tube scrap. This contains too much phosphorus which drastically reduces the electrical conductivity.

The lower grades of scrap can be used to make copper alloys or chemicals. The copper sulphate you use in your school laboratory has probably been made with scrap copper.

http://www.schoolscience.co.uk/content/3/chemistry/copper/copch32pg3.html

Copper Facts

Electrical

Copper is the standard benchmark for electrical conductivity. It conducts electrical current better than any other metal except silver.

Copper is routinely refined to 99.98% purity (even more pure than Ivory Soap) before it is acceptable for many electrical applications.

Number 12 (AWG) copper wire is the most common size used for branch circuit wiring in buildings. The amount of copper products consumed in the U.S.A. this past year would make a size 12 wire that could encircle the Earth 2,630 times or make 140 round trips to the Moon.

http://www.copper.org/education/c-facts/c-electrical.html

Regards,

Mike Monett

3352. Re: Interlacing 2 meter and 70 cm beams

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 09:35:29 UTC
From: VK3XL <VK3XL.28mmdl@news.radiobanter.com>
Message-ID: <VK3XL.28mmdl@news.radiobanter.com>
Source record: 58597

Sal M. Onella Wrote:
> "VK3XL" VK3XL.28lp1m@news.radiobanter.com wrote in message
> news:VK3XL.28lp1m@news.radiobanter.com...[color=blue]
>
> Hi all, I am currently building a new 2 meter beam for SSB. I am
> using
> the DL6WU design on a 6 meter boom. While working on the antenna last
> night a thought struck me "why not interlace a 70 cm beam on the same
> boom"?
> "snip"
> Some help: I saw one for sale at HRO a few years ago. Might have been
> this
> one:
>
> http://www.eham.net/reviews/detail/3297
>
> Note also that many VHF TV antennas are this way; the low-band
> elements for
> 55 - 88 MHz share the boom with the high band elements for 172 - 216
> MHz.
>
> These two bands are approximately in a 1 : 3 ratio, as are 2M & 70cm.
Thanks for the reply. All very interesting, but I am thinking of
something a bit bigger ie 12 elements on 2 meters on a 6 meter long
boom and up to 27 elements on 70 cm on the same boom. I fear that
because 70 cm is almost exactly the 3 rd harmonic of 2 that the 2meter
elements will act as unwanted directors in the 70 cm beam, any thoughts
welcome.....
Mike
VK3XL

--
VK3XL

3353. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 10:24:21 UTC
From: Felix <Felix.28mmdm@news.radiobanter.com>
Message-ID: <Felix.28mmdm@news.radiobanter.com>
Source record: 58598

George wrote:

- New ideas need to be consistant with the accepted laws of physics
- unless what is being proposed is so radical that it breaks new
ground.
- At that point it is the job of the inventor to lay out the theory
and
- application for peer review. Otherwise, we spend a lot of time
shooting
- the bull.

Theory is as good, as it corresponds with the real world.
If your theory does not correspond to the real world results
you have to revise it.

But maybe it is just your understanding of the full theory.

The design is available for anybody who wants to check it.
Contact me

with best regards

Felix HB9ABX

--
Felix

3354. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 13:05:03 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1148993712_35831@sp6iad.superfeed.net>
Source record: 58594

Tom Ring wrote:
> chuck wrote:
>
>>
>>
>> The copper alloys widely used in wires are quite resistant to
>> corrosion. Even when immersed in pure seawater, their corrosion rate
>> there is on the order of 0.025 mm/year. Unfortunately polluted waters
>> can increase that rate.
>>
>
> What then, would be polluted water? Salt water seems polluted enough.
>
> tom
> K0TAR
>

Copper piping and water jackets are often badly corroded when decaying plant and animal mater and sediment are dormant in the pipe. This is likely to be more troublesome in marinas and harbors than in the open ocean (Sargasso Sea excepted, maybe).

"Particularly detrimental are sulfate-reducing bacteria in bottom mud and sediment and on the natural sulfates in seawater." from "The Boatowner's Guide to Corrosion" by Everett Collier.

73,
Chuck
NT3G

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3355. RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 13:21:56 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1148994725_36063@sp6iad.superfeed.net>
Source record: 58595

This is a distillation of several recent postings and other readily available information on securing a good RF "ground" for a vertical antenna on a plastic or wood sailboat. The basis for each method was either reported model results or a presumed "organizational authority" on the subject (i.e., ARRL, Icom, and SGC).

No ranking or recommendation was intended.

If anyone spots any errors of fact or significant omissions, I'd welcome appropriate "recalibration". Thanks in advance.

1) Grounding plates

Will not work if submerged as much as four feet, but will work as near-perfect if at the waterline, and may work if attached to hull even when submerged four feet (awaiting clarification from Roy, W7EL). In fresh water or low-conductivity water, a ground plate may not function acceptably. Sometimes used in combination with #4 below. Recommended only "as a last resort" by Icom.

2) Wire in water

A one-foot length of wire immersed near water surface is sufficient for near-perfect results based on W7EL's NEC-4 model results. Assumed performance is similar to grounding plate.

3) Radials

Even shortened (loaded) radials elevated over seawater work as near-perfect based on N6LF's NEC-4 modeling. Objections to radials are safety (high-voltage insulation notwithstanding), tripping hazard, undesirable RF coupling, and the necessity of either tuning the radial(s) or installing multiple 1/4 wavelength wires. Radials will be useful even over fresh water or when boat is on land. Single radials can provide significant near-vertical radiation which may be useful, but at the cost of reduced radiation from the vertical radiator. Considered a viable alternative by Icom but not recommended by ARRL.

4) Counterpoise (i.e., mast, forestay, shrouds, lifelines, engine, metal tanks, 100 square feet of copper, keel, rudder, etc. bonded together)

One of the traditional approaches to marine SSB installations on plastic and wood sailboats. The mast and rigging often provide the equivalent of ~200 lineal feet of counterpoise wire above deck with additional metal structures connected on and below deck. Sometimes used in combination with a grounding plate. If copper is placed inside hull below waterline, useful capacitive coupling to the water may occur. Will work over fresh

water and on land. This is the method recommended in the ARRL Antenna Book, where radials, as the only considered alternative, are discouraged in their discussion for the reasons stated in #3. This type of counterpoise is also the approach recommended by both Icom and SGC.

5) OCF dipole w/horizontal component along deck

Not commonly used, but obviates the need for multiple resonant radials. Analyzed by W4RNL. Usually requires a current choke in the coax from tuner to rig to reduce undesired RF coupling. Suffers from some of the same objections listed for radials; will also provide some near-vertical radiation. Will work over fresh water and on land.

Is that where it stands, folks?

73,

Chuck,
NT3G

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3356. Re: Motor for remote controlled tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 14:22:58 UTC
From: mcalhoun@ksu.edu
Message-ID: <e5hkg2$kmc@unix1.cc.ksu.edu>
Source record: 58596
Body handling: HTML body converted to readable text

[No readable article body recovered]

3357. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 15:03:17 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <tqydnX8c8PMnwuHZRVnyrQ@bt.com>
Source record: 58599

You are all making a song and dance about it.

Whatever the ground electrode system happens to be, the impedance to Earth cannot possibly be less than the series impedance of the connecting lead. Which can be quite high at HF.

In my opinion, the most effective ground will always be a short, thick, direct connection from the radio equipment to the internal hull of a metal boat.

If you like, you can connect whatever else you have in mind in parallel with it, probably at the other end of a long lead, and it won't make the slightest improvement in performance.

Just use your loafs. And Happy sailing!

Reg, G4FGQ.

3358. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 15:08:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <0bydncqoc-RY_eHZRVnyvw@bt.com>
Source record: 58600

> > What then, would be polluted water?

==========

Well, for starters, you could urinate in it.

3359. Re: RoomCap Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 15:19:41 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <iu-dnW6e9aTm_uHZRVny2Q@bt.com>
Source record: 58601

```
> The design is available for anybody who wants to check it.
> Contact me
>
> Felix HB9ABX
====================================

How much money do you want up front?
```

3360. Re: Interlacing 2 meter and 70 cm beams

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 15:27:00 UTC
From: Cecil Moore <mycall@arrl.net>
Message-ID: <8vZeg.42654$Lm5.13258@newssvr12.news.prodigy.com>
Source record: 58602

"VK3XL" <VK3XL.28mmdl@news.radiobanter.com> wrote:
> Thanks for the reply. All very interesting, but I am thinking of
> something a bit bigger ie 12 elements on 2 meters on a 6 meter long
> boom and up to 27 elements on 70 cm on the same boom. I fear that
> because 70 cm is almost exactly the 3 rd harmonic of 2 that the 2meter
> elements will act as unwanted directors in the 70 cm beam, any thoughts
> welcome.....

One method of solving that problem is to orient the 2m elements
at right angles to the 70cm elements. Of course, if you don't
rotate the antenna by 90 degrees between bands, you would
lose 3 dB on both bands (assuming you want horizontal
polarization on both bands).
--
73, Cecil http://www.qsl.net/w5dxp

3361. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 15:53:44 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <127oqioe5et8n40@corp.supernews.com>
Source record: 58603

For use in salt water, a number of Cu alloys have "excellent" corrosion resistance. Among those that are available are the Admiralty Brasses (C44300 with As or C44500 with P). They have about 25% conductivity wrt to soft Cu. (Brass is mostly Cu and Zn.)

Phosphor Bronze (C52100) is also a candidate with 13% conductivity. This is particularly good for antenna wire use.

Pure Cu is expressed as having "good" resistance.

Find a thin plate of Admiralty brass and bond Cu or phosphor bronze wire to the plate. Put the assembly into the water as "ground" and you are done.

73, Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

3362. Re: Interlacing 2 meter and 70 cm beams

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 16:16:28 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1149005788.262443.182680@38g2000cwa.googlegroups.com>
Source record: 58604

I think that you'll not really know what happens unless you model the whole thing.

You might be able to tweak the whole thing for best performance in software then. There are likely too many things you'd have to change to do a manual optimization with the number of elements you're talking about, but at least you'll know what the pattern is.

I did this for a 2m/432 combo where I hung the 432 4 element off the nose of the 2m 5 element, but, admittedly, this was a MUCH easier situation, as the 432 beam by itself had 20dB F/B. The pattern was changed by proximity to the 2m antenna, but it was an improvement.

I adjusted the spacing of the 432 beam for the best F/B and the 2m beam ignored the 432 entirely.

73,
Dan
N3OX
www.n3ox.net

3363. Re: Motor for remote controlled tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 17:07:38 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1149008858.665225.157870@u72g2000cwu.googlegroups.com>
Source record: 58605

Hobby Engineering has a bunch of gearmotors...

http://www.hobbyengineering.com/SectionM.html#IX1415

I bought three to remote my tuner. Plenty of torque to turn the caps and inductor switch in a "1500W" MFJ tuner. They're only $5.50 apiece new.

They're also all-plastic gearboxes and output shafts, so you don't have to worry about insulating shaft couplers, etc.

My gut feeling is that the ones I bought (Gear Motor 9: Right Angle Shaft) could be a bit undersized to turn a roller inductor, especially since you probably want to go a bit faster.

http://www.n3ox.net/projects/servo has info about my remote tuner.

73,
Dan
N3OX

3364. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 17:34:07 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1149009855_37383@sp6iad.superfeed.net>
Source record: 58606

Reg Edwards wrote:

> You are all making a song and dance about it.
>

And it seems I don't know the words.

> Whatever the ground electrode system happens to be, the impedance to
> Earth cannot possibly be less than the series impedance of the
> connecting lead. Which can be quite high at HF.
>

Yes, but who's to say where the
connecting lead begins. Simply imagine
the antenna extending all the way to the
ground electrode system and the tuner
inserted, say four feet above it. The
tuner may need some RF choking, of
course, but ground lead impedance is now
near zero ohms.

> In my opinion, the most effective ground will always be a short,
> thick, direct connection from the radio equipment to the internal hull
> of a metal boat.

Not so practical a solution from inside
an FRG hull.

>
> If you like, you can connect whatever else you have in mind in
> parallel with it, probably at the other end of a long lead, and it
> won't make the slightest improvement in performance.
>

Certainly true for a metal hull in
saltwater.

> Just use your loafs. And Happy sailing!
> ----
> Reg, G4FGQ.
>
>
73,

Chuck

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3365. Re: Motor for remote controlled tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 18:33:58 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97D375EA3B4B0spectrumhogstarbandn@198.186.192.196>
Source record: 58607

Thanks, Dan. Yours was a different take on what I was considering.
Will look into it.

Ed

"n3ox.dan@gmail.com" <n3ox.dan@gmail.com> wrote in
news:1149008858.665225.157870@u72g2000cwu.googlegroups.com:

> Hobby Engineering has a bunch of gearmotors...
>
> http://www.hobbyengineering.com/SectionM.html#IX1415
>
> I bought three to remote my tuner. Plenty of torque to turn the caps
> and inductor switch in a "1500W" MFJ tuner. They're only $5.50 apiece
> new.
>
> They're also all-plastic gearboxes and output shafts, so you don't have
> to worry about insulating shaft couplers, etc.
>
> My gut feeling is that the ones I bought (Gear Motor 9: Right Angle
> Shaft) could be a bit undersized to turn a roller inductor, especially
> since you probably want to go a bit faster.
>
> http://www.n3ox.net/projects/servo has info about my remote tuner.
>
> 73,
> Dan
> N3OX
>
>

3366. Re: Motor for remote controlled tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 18:36:05 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97D37645E7771spectrumhogstarbandn@198.186.192.196>
Source record: 58608

My thanks to Dave P, Dave, Dan, and Myron for the input. All was
useful, and has given me plenty to think about before I settle for any one
solution.

Thank you.

Ed K7AAT

3367. Re: Please Help me urgently

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 20:18:27 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e5i9aj$16ki$1@f04n12.cac.psu.edu>
Source record: 58609

George wrote:
> Hey Dave.... From where do you suppose the instructor got the question?
> Besides we really don't know if the class is in EE or on computer web
> sites and the internet!.....WB3HUH
>

Simply "getting" the answer from google is not wrong or unethical - any more than looking up the answer in a textbook.

It is what you do with it after you get it. that is the issue. I do my research in textbooks, reference volumes, and google. It's all good. As long as it is correct.

Some of this creeping codgerism sounds like the old rants against calculators..... and I'll bet slide rules before that! ;^)

- 73 de Mike KB3EIA -

3368. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 20:35:03 UTC
From: You <You@shadow.orgs>
Message-ID: <You-0C3686.12355730052006@netnews.worldnet.att.net>
Source record: 58610

In article <tqydnX8c8PMnwuHZRVnyrQ@bt.com>,
"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:

> You are all making a song and dance about it.
>
> Whatever the ground electrode system happens to be, the impedance to
> Earth cannot possibly be less than the series impedance of the
> connecting lead. Which can be quite high at HF.
>
> In my opinion, the most effective ground will always be a short,
> thick, direct connection from the radio equipment to the internal hull
> of a metal boat.
>
> If you like, you can connect whatever else you have in mind in
> parallel with it, probably at the other end of a long lead, and it
> won't make the slightest improvement in performance.
>
> Just use your loafs. And Happy sailing!
> ----
> Reg, G4FGQ.

True, except most of the folks discussing Rf Grounds here aren't
working with metal hulled vessels. They are dealing with wood or
plastic (Fiberglass) hulls, where an effective RF Ground is
significantly harder to build.

3369. Re: how tall tower???

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 21:29:49 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <3jdp7219ej518u8aannso485q3k7ifgrv7@4ax.com>
Source record: 58611

On Sun, 28 May 2006 22:31:59 -0500, lorentsonci
<lorentsonci@lycos.com> wrote:

>I think somone , smarter than me , will have a answer,,,, "you are
>driving down the hiway and see a cell/antenna tower, it is off the
>hiway but you don't know how far,,,, and you would like to know how
>tall the tower is,,,????? Is there a simple (kiss) way to find out?
>thanks in advance. cl.

Although you are going to get a lot of answers the killer is that KISS
which leaves an answer of, no...no really, BUT depending on your math
skills you can come up with a rough approximation.

The accuracy depends on being close enough to get a reasonable angle
between the ground and top of the tower. That depends on you and the
tower being at the same height. You can determine the distance to the
tower by starting with the road at right angles to the tower and
driving a measured distance and again using trig to find the distance
to the tower, but this depends on things not only being level but the
road being straight and level and your ability to find a point where
the road is at a right angle to the tower.

So rephrased you are using right triangles to find the distance to the
tower and based on that another right triangle to find the height.
(time to study your trig functions).

Depending on your ability to determine the location of the right
angle, how level the land, the distance to the tower, and your angle
measuring ability you could come up with an error between a few
percent and as much as 20% or even more.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

3370. Online antenna calculator

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 22:04:07 UTC
From: oli <oli004@wanadoo.fr>
Message-ID: <447cc159$0$18324$8fcfb975@news.wanadoo.fr>
Source record: 58612

Goog morning to all,

Have you try the delta loop antenna calculator on

http://www.antenna-street.com/delta-loop-1en.php ?

- Choose your work frequency,

- Choose the number of elements you want,

- Clic on : calculate

- The see the dimension and directly download the .MMANA files

to view diagrams and all most importants values.

Best regards

Oli004

3371. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 22:19:39 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e5igqb$ns2$1@news.service.uci.edu>
Source record: 58613

Cecil Moore wrote:
> Jim Kelley wrote:
>
>> One should also carefully consider the more interesting variation of
>> the problem: an open transmission line. In the steady state we have
>> 100 watts forward, 100 watts reflected, 200 Joules in the line, and 0
>> watts being sourced by the generator. :-)
>
>
> Yes, but the 200 joules in the line was previously sourced
> by the generator during the transient state. It's hard to
> sweep 200 joules under the reflected power rug.

So is this your proof that Joules of
energy are likewise reflected from
antireflective surfaces?

ac6xg

3372. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 22:43:48 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e5ii7l$on4$1@news.service.uci.edu>
Source record: 58614

Cecil Moore wrote:

> Jim Kelley wrote:
>
>> One should also carefully consider the more interesting variation of
>> the problem: an open transmission line. In the steady state we have
>> 100 watts forward, 100 watts reflected, 200 Joules in the line, and 0
>> watts being sourced by the generator. :-)
>
>
> Expanding on my earlier response - For the first two seconds,
> the source doesn't know it is looking into an open transmission
> line so a 100 watt source would faithfully output 200 joules
> into a one second long open circuit transmission line. That
> 200 joules cannot be destroyed. Is it mere coincidence that
> the forward and reflected waves are 100 joules/sec*(one second),
> exactly equal to the 200 joules supplied by the source?

But you're missing, or trying to
circumvent, the most interesting aspect
of the problem. It's the one which
highlights the very core of our
disagreement. The energy stored in the
line, remains stored in the line as long
as steady state is maintained without a
single Joule of additional energy moving
into or out of the line. To me, this
illustrates clearly how the fields at
the impedance interfaces of a matching
transformer can be maintained without
requiring multiple rereflections of
energy. I'm hoping some day you'll see
it too.

73, ac6xg

3373. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 23:14:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Ql4fg.2320$VE1.2288@newssvr14.news.prodigy.com>
Source record: 58615

"Jim Kelley" <jwkelley@uci.edu> wrote in message
news:e5igqb$ns2$1@news.service.uci.edu...
>
> Cecil Moore wrote:
>> Yes, but the 200 joules in the line was previously sourced
>> by the generator during the transient state. It's hard to
>> sweep 200 joules under the reflected power rug.
>
> So is this your proof that Joules of energy are likewise reflected from
> antireflective surfaces?

No, the two subjects are conceptually only distantly related so your
posting is a diverting of the above issue - changing the subject back
to an earlier thread:

Every impedance discontinuity causes reflections. An antireflective
surface is an impedance discontinuity, i.e. a change in the index of
refraction between two mediums. If properly designed, the anti-reflective
surface causes 100% destructive interference between the internal and
external reflections each of which contain joules of energy. It is easy to
prove
that the internal reflection contains joules of energy. If the external
reflection
didn't contain any energy, then destructive interference would not be
possible. Therefore, both reflections associated with an antireflective
surface must contain an equal magnitude of joules.

In his QEX article, Dr. Best gave us the physics equation that governs
100% destructive interference: Ptotal = P1 + P2 - SQRT(P1*P2).
Assuming that power cannot exist without energy, if the energy in P1
equals the energy in P2 and the associated waves are 180 degrees out
of phase, then of course 100% destructive interference occurs at the
antireflective surface. That's how antireflective surfaces and Z0-matches
work.
--
73, Cecil http://www.qsl.net/w5dxp

3374. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 23:20:52 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e5ikd6$q5v$1@news.service.uci.edu>
Source record: 58617

Richard,

I'm pretty sure steady state isn't
achieved in that short a time when there
are significant reflections on a line
that long.

Consider this. Initially, forward power
from a 100 Joule per second source is,
naturally, just 100 Joules per second.
After one second, (the first second in
particular), there should be 100 Joules
on the line.

It follows that the initial reflection
would be 50 watts. When we assume that
everything is re-reflected from the
source, then at two seconds the forward
power at the front of the line would be
150 watts. At four seconds, 175 watts;
six seconds, 187.5; eight seconds,
193.75, and so on.

When the number finally reaches 200
Joules per second at the load, the
reflected power would have become 100
Joules per second back at the source one
second earlier. At that point we can
multiply the sum of forward and
reflected power by the length of the
line in seconds and gleefully announce
that 300 Joules are being/have been
stored in/on/at the xmission line.

73, ac6xg

Richard Harrison wrote:

> I`ll speculate that after one second, 200 joules are contained in the
> forward wave on that line. Then, after two seconds, another 100 joules
> has been reflected back toward the line feedpoint where it opposes
> growth of power input to the line. Total joules on the line is 300.
>
> Forward power minus the reflected power equals 100 watts being supplied
> by the generator to the load with 200 watts forward power and 100 watts
> reflrcted power in the line.

>
> Best regards, Richard Harrison, KB5WZI
>

3375. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 23:22:38 UTC
From: dplatt@radagast.org
Message-ID: <127pktuj8k67r25@corp.supernews.com>
Source record: 58616

In article <e5ii7l$on4$1@news.service.uci.edu>,
Jim Kelley <jwkelley@uci.edu> wrote:

>> Expanding on my earlier response - For the first two seconds,
>> the source doesn't know it is looking into an open transmission
>> line so a 100 watt source would faithfully output 200 joules
>> into a one second long open circuit transmission line. That
>> 200 joules cannot be destroyed. Is it mere coincidence that
>> the forward and reflected waves are 100 joules/sec*(one second),
>> exactly equal to the 200 joules supplied by the source?
>
>But you're missing, or trying to
>circumvent, the most interesting aspect
>of the problem. It's the one which
>highlights the very core of our
>disagreement. The energy stored in the
>line, remains stored in the line as long
>as steady state is maintained without a
>single Joule of additional energy moving
>into or out of the line. To me, this
>illustrates clearly how the fields at
>the impedance interfaces of a matching
>transformer can be maintained without
>requiring multiple rereflections of
>energy. I'm hoping some day you'll see
>it too.

Jim,

How would your model view the case in which the source transmitted
into the T-line for 1.5 seconds (delivering 150 joules into the line)
and was then disconnected, leaving both ends of the T-line
open-circuited.

In this case, you'd continue to have 150 joules of total energy stored
in the line (modulo the amount of energy which does manage to radiate
out sideways). However, there would be periods (of 500 milliseconds,
one per two seconds) when the voltage near the source end of the
T-line, and the amount of current flowing through the T-line in this
area, were both zero. For the intervening 1.5 seconds out of each 2
seconds, there would be strong current flow through this portion of
the line (having a standing-wave characteristic for all but a very
short transition time on either end).

This state of affairs can, I don't doubt, be modeled purely as a
matter of interaction and interference between fields. The model

would appear to me to have to become extremely complex, in order to produce the correct results at all points over the two-second long-term periodicy of this system.

It can also be modeled as the effect of interference between forward and reflected waves... and this is a somewhat simpler model to use to describe systems such as this which do not exhibit a purely steady-state behavior.

As far as I can see, *neither* of these models (fields, or reflected waves) is fundamentally superior to the other. They are both equally capable of producing an accurate description of the output of the system at any point in time, given a set of inputs to the system. Hence, by the usual standards of the validity of a scientific theory, both models are equally valid.

Under certain circumstances, one model may be more "practically useful" than the other. My impression is that your model of fields may be more useful in looking at relatively local behavior (e.g. within a wavelength or two) within a system that's at, or close to a steady state. Cecil's preferred model of reflected power may be more practical to use (i.e. simpler computations to produce a valid result) when dealing with systems far from steady state.

In between those two extremes, it looks to me as if which model one prefers is simply that - a personal preference.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3376. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 23:32:40 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sC4fg.2324$VE1.1355@newssvr14.news.prodigy.com>
Source record: 58618

"Jim Kelley" <jwkelley@uci.edu> wrote in message
news:e5ii7l$on4$1@news.service.uci.edu...
> But you're missing, or trying to circumvent, the most interesting aspect
> of the problem. It's the one which highlights the very core of our
> disagreement. The energy stored in the line, remains stored in the line
> as long as steady state is maintained without a single Joule of
> additional energy moving into or out of the line. To me, this
> illustrates clearly how the fields at the impedance interfaces of a
> matching transformer can be maintained without requiring multiple
> rereflections of energy. I'm hoping some day you'll see it too.

You are, of course, talking about NET energy, and I agree with you about net energy. But it is easy to prove we are NOT dealing with net energy by observing
ghosting on a TV signal. It is easy to prove that multiple re-reflections are
indeed actually occurring in reality.

Your argument is that if 5000 cars cross the bridge into the city during the day
and 4990 cars cross the bridge out of the city during that day, that only 10 net cars have crossed the bridge in a day. I agree with your net figure but note that the bridge cannot be replaced with a 1 car ferry boat operating tens times per day which is akin to your above argument.
--
73, Cecil http://www.qsl.net/w5dxp

3377. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 23:37:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <rH4fg.2328$VE1.1174@newssvr14.news.prodigy.com>
Source record: 58619

"Jim Kelley" <jwkelley@uci.edu> wrote:
>
> I'm pretty sure steady state isn't achieved in that short a time when
> there are significant reflections on a line that long.

I'm glad you brought that up. Here is the EXCEL spread sheet for that same signal generator equipped with an auto-tuner. You are right in that it takes a longer time to achieve steady-state but everything becomes completely clear after 30 seconds and the results are exactly the same (using a 100 watt
signal generator).

http://www.qsl.net/w5dxp/1secsgat.gif
--
73, Cecil, W5DXP

3378. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 23:55:15 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e5imdl$re0$1@news.service.uci.edu>
Source record: 58621

Very nice, Cecil. It would be also
useful to know how you obtained these
numbers.

73, ac6xg

Cecil Moore wrote:
> "Jim Kelley" <jwkelley@uci.edu> wrote:
>
>>I'm pretty sure steady state isn't achieved in that short a time when
>>there are significant reflections on a line that long.
>
>
> I'm glad you brought that up. Here is the EXCEL spread sheet for that same
> signal generator equipped with an auto-tuner. You are right in that it takes
> a longer time to achieve steady-state but everything becomes completely
> clear after 30 seconds and the results are exactly the same (using a 100
> watt
> signal generator).
>
> http://www.qsl.net/w5dxp/1secsgat.gif
> --
> 73, Cecil, W5DXP
>
>

3379. New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 23:58:58 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <SKednQ6g3qpAfeHZRVnytQ@bt.com>
Source record: 58622

New Program : LINELEN.exe

This program calculates dipole feedpoint impedance, transmission line
input impedance, and balun input impedance, versus frequency.

Dipole and line can be of any length. Line Zo can be of any
impedance.

Power lost in antenna and line is calculated. Also overall loss.

In addition to its educational value, this program will assist users
to change line length when the impedance presented to the tuner is
beyond its capability to transform it to a resistive 50 ohms.

Download self-contained program LINELEN, file size = 53 K-bytes, from
website below.

....
Regards from Reg, G4FGQ
For Free Radio Design Software go to
http://www.btinternet.com/~g4fgq.regp
....

3380. Re: Interlacing 2 meter and 70 cm beams

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-30 23:59:23 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <447cdc5e$0$1013$39cecf19@news.twtelecom.net>
Source record: 58620

VK3XL wrote:

> Hi all, I am currently building a new 2 meter beam for SSB. I am using
> the DL6WU design on a 6 meter boom. While working on the antenna last
> night a thought struck me "why not interlace a 70 cm beam on the same
> boom"?
> so here is the question, does any one have any data on interaced beams
> in particular the degredation of performance of the equivelent monoband
> yagis.
> There are a number of reasons that this interlaced beam idea is
> appealing to me (mostly mechanical) but I am not sure how badly the
> gain may be effected. Does anyone have real data on the issue?
> many thanks
> Mike
> VK3XL
>
>

First, I would suggest you skip the DL6WU design. While it is good, the K1FO design has much better charactistics overall, better gain, better noise temperature, better pattern, better bandwidth.

And the answer, from a long series of 2m/70cm band interlaced optimizatations I did 15 years ago is, don't bother.

That being said, there is another way to do the dual band that does work. If you'd like to know, drop me an email, and I'll sewe if the guy who thought it up agrees to let me tell you. I did a bunch of modeling for him on the idea last year, and it should work.

To tantalize, it let you put 6, 2 and 432 on one boom. And they all work well with good bandwidth and pattern.

Any NLRS members reading (there's at least one) who were at Aurora 2005 know who came up with this neat idea.

tom
K0TAR

3381. Re: Interlacing 2 meter and 70 cm beams

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 00:43:05 UTC
From: VK3XL <VK3XL.28njpk@news.radiobanter.com>
Message-ID: <VK3XL.28njpk@news.radiobanter.com>
Source record: 58624

n3ox.dan@gmail.com Wrote:
> I think that you'll not really know what happens unless you model the
> whole thing.
>
> Snip
>
>
> www.n3ox.net
Thanks for the replies, as yet I hav'nt done any antenna modeling, but
that sounds like a good project for these cold winter nights. Any
suggestions on what software to use?
Thanks
Mike
VK3XL

--
VK3XL

3382. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 02:26:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <a97fg.104144$dW3.76605@newssvr21.news.prodigy.com>
Source record: 58623

"Jim Kelley" <jwkelley@uci.edu> wrote:
> Very nice, Cecil. It would be also
> useful to know how you obtained these
> numbers.

The same way you obtained your numbers, Jim, when you said:

> It follows that the initial reflection
> would be 50 watts. When we assume that
> everything is re-reflected from the
> source, then at two seconds the forward
> power at the front of the line would be
> 150 watts. At four seconds, 175 watts;
> six seconds, 187.5; eight seconds,
> 193.75, and so on.

Please note that your numbers and mine agree exactly.
Also please note that I posted those numbers days ago
on qrz.com under a brainteaser thread. I have the EXCEL
file if you or anyone else would like to have it. (In a
one second long transmission line, when the load reflects
50 watts, it has essentially reflected 50 joules because
nothing changes during the following second.)

In fact, I'll present a challenge for you and everyone
else. In any one second long lossless transmission line
with any forward power and any reflected power, I defy
you to come up with an example where the number of joules
stored in the line is not equal to the forward power plus
the reflected power. Those joules are the joules sourced
by the generator that have not made it to the load. The
conservation of energy principle will have it no other
way. The laws of physics win once again.
--
73, Cecil http://www.qsl.net/w5dxp

3383. Re: Yacht Rf ground and radials

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 03:22:59 UTC
From: George <forvmman@msn.com>
Message-ID: <1149045779.456338.33010@f6g2000cwb.googlegroups.com>
Source record: 58625

Reg Edwards wrote:
> A 6" square plate makes an adequate ground when immersed in salt sea
> water. That is unless the transmitter power exceeds 10 kW.

I wonder.... It has been awhile since I checked, but does AES or HRO
still sell those 8 ft "water rods" ? ?.....George

3384. Re: Interlacing 2 meter and 70 cm beams

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 04:50:22 UTC
From: VK3XL <VK3XL.28o0dk@news.radiobanter.com>
Message-ID: <VK3XL.28o0dk@news.radiobanter.com>
Source record: 58527

Tom Ring Wrote:
> VK3XL wrote:
> [color=blue]
>
> tom
> K0TAR
Tom thanks for the offer, if it is ok with the originator, can you
send me the details of the multi band vhf/uhf antenna.
sent it to vk3xl(at)yahoo.com
thanks
Mike

--
VK3XL

3385. Re: seperation in lie of a duplexer at 222 mhz band

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 05:15:54 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <nb9q725tt8o78o28qhdgi9en58rntnrp8i@4ax.com>
Source record: 58526

On Mon, 29 May 2006 23:15:07 -0500, Ed Bailen <n5kzw@arrl.net> wrote:

>There is a local repeater system here that was put together by an
>impoverished college student many years ago. He didn't have much
>money for duplexers, but he did have the gift of persuasion. He was
>able to talk his way on to 4 towers scattered about town. He has
>transmitters and receivers for 6m, 2m, 1.25m, and 75cm spread over the
>four towers, all cross-linked. No tower has a transmitter and a
>receiver on the same band. Each tower is 15 to 20 miles from the next
>tower.
>
>Ed
>
>On 21 May 2006 14:17:19 -0700, "an old friend" <kb9rqz@yahoo.com>
>wrote:
>
>>haing gotten many of the peices of a 222 band repater and wanting to
>>put it on the air how much sepertion is required to avoid a paying the
>>price of a duplexer at 22 band
>>

This does add the complexity of requiring multiple receivers, links,
sites and a voter to get even coverage, but if the equipment is
available, it works, or can work very well and you do not have the
ticklish process of setting up a series of band pass/band stop cans
which is usually three on transmit and three on receive.

I have forgotten the specific distance required for
separation/isolation, but it's considerable and I believe it's close
to a mile, maybe more. I'm sure some one on here can come up with the
specifics.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

>>any assiatnce welcome

3386. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 09:38:51 UTC
From: Jon Kåre Hellan <dev@null.com>
Message-ID: <1mbqter0t0.fsf@persaunet.uninett.no>
Source record: 58528

chuck <nospam@nospam.net> writes:

>
> 3) Radials

> 5) OCF dipole w/horizontal component along deck

> Is that where it stands, folks?

Beside the name, is there any difference between an OCF dipole and a
single radial?

73
LA4RT Jon

3387. Mobile rigging

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 10:05:11 UTC
From: Jerseyj <jerseyj69@comcast.net>
Message-ID: <jerseyj69-12602D.06051131052006@comcast.dca.giganews.com>
Source record: 58529

Hi all,
Just got a new 2006 Forrester and want to get my 2M/440 rig mounted
along with a mag mount antenna. Someone pointed me to the "rig of the
month" web site, but that site appears dead..

Anyone have any web sites that I can look at for information on setting
up my radio in my car ?

3388. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 13:08:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <2zgfg.104286$dW3.12234@newssvr21.news.prodigy.com>
Source record: 58530

"Jon K�re Hellan" <dev@null.com> wrote:
> Beside the name, is there any difference between an OCF dipole and a
> single radial?

By definition, a "radial" would be physically orthogonal to the
other element. The elements in an OCF are usually collinear.
--
73, Cecil http://www.qsl.net/w5dxp

3389. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 13:43:23 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1149082403_44817@sp6iad.superfeed.net>
Source record: 58531

Jon Kï¿½re Hellan wrote:
> chuck <nospam@nospam.net> writes:
>
>> 3) Radials
>
>> 5) OCF dipole w/horizontal component along deck
>
>> Is that where it stands, folks?
>
> Beside the name, is there any difference between an OCF dipole and a
> single radial?
>
> 73
> LA4RT Jon

We don't seem to have widely used, descriptive
names for these configurations. Cecil is correct,
and perhaps the OCF referred to should be called
an OCF "L". The vertical radiator with a single,
elevated, horizontal, resonant "radial" perhaps
should be called an "L" dipole.

On inspection, either antenna, on a boat with a
tuner at the feedpoint, could be mistaken for the
other. You could tell the difference only by
observing how the antenna is operated. If the
antenna is operated only on those frequencies for
which the horizontal element is an odd multiple of
a 1/4 wavelength, we would call the antenna an "L"
dipole (or whatever).

If that same antenna were operated not only on
those frequencies, but on all others (HF spectrum)
as well, we would call it an OCF "L".

But if, on inspection, the antenna has multiple
resonant radials, that would unambiguously
differentiate it from the OCF.

Whenever the two antennas are physically
identical, they will obviously operate identically.

Make sense, Jon? Sorry for the confusion.

73,

Chuck
NT3G

----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3390. Re: Mobile rigging

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 14:28:10 UTC
From: "R. Scott" <rickw7psk@gmail.com>
Message-ID: <J04w6x.Evu@news.boeing.com>
Source record: 58532

"Jerseyj" <jerseyj69@comcast.net> wrote in message
news:jerseyj69-12602D.06051131052006@comcast.dca.giganews.com...
> Hi all,
> Just got a new 2006 Forrester and want to get my 2M/440 rig mounted
> along with a mag mount antenna. Someone pointed me to the "rig of the
> month" web site, but that site appears dead..
>
> Anyone have any web sites that I can look at for information on setting
> up my radio in my car ?

Looks like K2BJ pulled the plug on the Mobile pages. Twas nice site too.

3391. Re: I was going through about ten years of ham catalogs, and I noticed a disturbing trend.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 15:39:38 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e5kdbr$se2$1@avnika.corp.mot.com>
Source record: 58545
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

$$

Steve

"Morse or Re-Morse" <see@double.you> wrote in message
news:eXMdg.13$eB3.11@newsread3.news.pas.earthlink.net...
> There's an increase in recent years of ham gear Retailers offering an
> expanding amount of citizen band radios and related products.
>
> So Retailers have seen the changes in the type of people that are
> making up and will be making up the US ham population, and have modified
> their inventories and marketing to stay in step with it.
>
> Gotta keep selling them radio's, Ten-Four?
>
>
> Morse

3392. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 15:43:29 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <cNydndFWGpgLJ-DZRVnyuQ@bt.com>
Source record: 58533

> Cecil is correct,

==========

He usually is!

3393. toot tone

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 16:30:47 UTC
From: Tom <tom@nospam.com>
Message-ID: <YKadnRnan_kqWeDZnZ2dnUVZ_vWdnZ2d@insightbb.com>
Source record: 58534

Do any of you out there know where I can get one of these things mentioned
on this site?

http://www.alldumb.com/item/27369/

3394. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 16:49:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <6ggr72509n8k0ulii7a3j574e6ogiuhrbp@4ax.com>
Source record: 58535

On Tue, 30 May 2006 09:21:56 -0400, chuck <nospam@nospam.net> wrote:

>If anyone spots any errors of fact or significant omissions, I'd welcome
>appropriate "recalibration". Thanks in advance.
>
>1) Grounding plates
>
>Will not work if submerged as much as four feet

Hi Chuck,

Don't know how you got this miss-impression.

>2) Wire in water
>
>A one-foot length of wire immersed near water surface is sufficient for
>near-perfect results based on W7EL's NEC-4 model results. Assumed
>performance is similar to grounding plate.

This conclusion is conflict with the first, making it a mystery how
you came to either in summary. The focus on "water surface" is as
though you are trying to force it work like a pool of mercury. Water
is NOT a ground plane in the sense of conductivity. Water is a
terrible conductor. It is only its huge mismatch with air that gives
it such superb propagation, not match, characteristics. Distinguish
between the two.

>3) Radials
>
>Even shortened (loaded) radials elevated over seawater work as
>near-perfect based on N6LF's NEC-4 modeling. Objections to radials are

The objections are they are wholly unnecessary when ground is so
easily achieved by conventional means. You would need 120 radials to
shield against the loss you perceive, and that loss doesn't matter
when you stand to gain so much in propagation. You couldn't even
field a tenth of these radials. At HF, and maintaining their tune
and symmetry, you would be lucky to fit in 2. At that stage of the
game, there is absolutely no match advantage over conventional
techniques aboard a small craft (and at HF you don't qualify for any
thing other).

>4) Counterpoise (i.e., mast, forestay, shrouds, lifelines, engine, metal
>tanks, 100 square feet of copper, keel, rudder, etc. bonded together)
>
>This type of
>counterpoise is also the approach recommended by both Icom and SGC.

Only because it is already available and doesn't ask you to go any
further for no obvious advantage.

>5) OCF dipole w/horizontal component along deck
>
>Not commonly used,

Who would choose a complicated design over so many simple ones?

>Is that where it stands, folks?

If you want a dipole, make a VERTICAL dipole, even a lousy one.

Finally, and to repeat, learn the distinction between matching and
propagation. Your focus on matching issues is like seeing your glass
3/4ths empty. Looking at the propagation advantages in comparison is
like seeing a pitcher of water nearby that will fill that glass a
dozen times.

73's
Richard Clark, KB7QHC

3395. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 17:28:12 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <UMSdnSklpdawTuDZnZ2dnUVZ8sidnZ2d@bt.com>
Source record: 58536

Richard, there you go again, overcomplicating quite simple matters
with your Shakespearian, Queen Elizabeth the 1st English.

Anything you toss into sea water makes a good ground.

You can consider the connecting lead to be a part of the ground sytem
or a part of the antenna. Take your pick. You will get precisely the
same answers, on analysis, whatever you do.
==========

3396. Re: New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 18:06:32 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <1lmr72p1ofrs3ncickuq3da3afs5s228j9@4ax.com>
Source record: 58537

On Wed, 31 May 2006 00:58:58 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>New Program : LINELEN.exe
>
>This program calculates dipole feedpoint impedance, transmission line
>input impedance, and balun input impedance, versus frequency.
>
>Dipole and line can be of any length. Line Zo can be of any
>impedance.
>
>Power lost in antenna and line is calculated. Also overall loss.
>
>In addition to its educational value, this program will assist users
>to change line length when the impedance presented to the tuner is
>beyond its capability to transform it to a resistive 50 ohms.
>
>Download self-contained program LINELEN, file size = 53 K-bytes, from
>website below.
>----
>...
>Regards from Reg, G4FGQ
>For Free Radio Design Software go to
>http://www.btinternet.com/~g4fgq.regp
>...
>

For the Wireman's ladderline # 551, where would I find the line loss
at 10 mhz in db per 100 feet (and why feet, when the other parameters
are in meters?)?

bob
k5qwg

3397. Re: toot tone

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 18:13:24 UTC
From: Buck <not@this.time>
Message-ID: <25nr7251ugqbp79miveaqrk56og9uuumkh@4ax.com>
Source record: 58538

On Wed, 31 May 2006 11:30:47 -0500, "Tom" <tom@nospam.com> wrote:

>Do any of you out there know where I can get one of these things mentioned
>on this site?
>
>http://www.alldumb.com/item/27369/
>
What is all the nonsense that the site was trying to conduct on my
system? It crashed half a dozen times.

--
73 for now
Buck
N4PGW

3398. Re: toot tone

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 18:18:39 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrne7rnp7.313q.bit-bucket@shell.config.com>
Source record: 58539

On Wed, 31 May 2006 11:30:47 -0500, Tom wrote:
> Do any of you out there know where I can get one of these things mentioned
> on this site?
>
> http://www.alldumb.com/item/27369/

That domain is well named.

But, your 'needs' are off topic in this antenna ng.
I think you want to ask in rec.radio.cb.cretins.
It's the sort of thing they would use for their 'roger-beep'.

3399. Re: New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 19:08:26 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <KQlfg.9900$y4.2693@newsread2.news.pas.earthlink.net>
Source record: 58540

Hi Reg,

Thank you for making yet another of your projects available
to the group!

But I am curious: What program inputs are required to
calculate losses for tuners and baluns? Schematics? ;-)
Coil Q? Wire type and gauge? Loss factors for ferrites?
And how would one KNOW these parameters for real-world
examples, say a Palstar AT-1500DT versus an Ameritron
ATR-30?

Ed

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:SKednQ6g3qpAfeHZRVnytQ@bt.com...
> New Program : LINELEN.exe
>
> This program calculates dipole feedpoint impedance, transmission line
> input impedance, and balun input impedance, versus frequency.
>
> Dipole and line can be of any length. Line Zo can be of any
> impedance.
>
> Power lost in antenna and line is calculated. Also overall loss.
>
> In addition to its educational value, this program will assist users
> to change line length when the impedance presented to the tuner is
> beyond its capability to transform it to a resistive 50 ohms.
>
> Download self-contained program LINELEN, file size = 53 K-bytes, from
> website below.
> ----
> ....
> Regards from Reg, G4FGQ
> For Free Radio Design Software go to
> http://www.btinternet.com/~g4fgq.regp
> ....
>
>

3400. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 19:10:52 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0Tlfg.104360$dW3.97546@newssvr21.news.prodigy.com>
Source record: 58541

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote:

>> Cecil is correct,
>
> He usually is!

Especially about California wines, a subject upon which I am a guru. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3401. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 20:16:08 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e5ktvlgjm1@news.service.uci.edu>
Source record: 58542

Cecil Moore wrote:
> "Jim Kelley" <jwkelley@uci.edu <mailto:jwkelley@uci.edu>> wrote:
> > Very nice, Cecil. It would be also
> > useful to know how you obtained these
> > numbers.
> The same way you obtained your numbers, Jim, when you said:
>
> > It follows that the initial reflection
> > would be 50 watts. When we assume that
> > everything is re-reflected from the
> > source, then at two seconds the forward
> > power at the front of the line would be
> > 150 watts. At four seconds, 175 watts;
> > six seconds, 187.5; eight seconds,
> > 193.75, and so on.
> Please note that your numbers and mine agree exactly.
> Also please note that I posted those numbers days ago
> on qrz.com under a brainteaser thread. I have the EXCEL
> file if you or anyone else would like to have it. (In a
> one second long transmission line, when the load reflects
> 50 watts, it has essentially reflected 50 joules because
> nothing changes during the following second.)

I'm not saying I think there's anything
wrong with your numbers. They're
actually very......precise. You wrote
something about a SG-AT autotuner, and
that could have a tendency to lead
someone to believe that you were
claiming to have made measurements. I
now understand that you didn't use an
SG-AT autotuner or make any
measurements. Thank you for clarifying
that point so eloquently.

> In fact, I'll present a challenge for you and everyone
> else.

Do you mean "everyone" - in the same
sense that Gary Oldman intended in "The
Professional"? :-)

> In any one second long lossless transmission line
> with any forward power and any reflected power, I defy
> you to come up with an example where the number of joules

> stored in the line is not equal to the forward power plus
> the reflected power. Those joules are the joules sourced
> by the generator that have not made it to the load. The
> conservation of energy principle will have it no other
> way. The laws of physics win once again.
> --

Kinda melodramatic. I'm not sure who
you're arguing with. I gotta tell ya
though, it reminds me a little of one of
those guys who stands out on the street
corner shaking his fist and shouting at
traffic. Ever try to converse with one
of those guys?

73, ac6xg

3402. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 20:44:40 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1149107678_2377@sp6iad.superfeed.net>
Source record: 58543

Richard Clark wrote:
> On Tue, 30 May 2006 09:21:56 -0400, chuck <nospam@nospam.net> wrote:
>
>> If anyone spots any errors of fact or significant omissions, I'd welcome
>> appropriate "recalibration". Thanks in advance.
>>
>> 1) Grounding plates
>>
>> Will not work if submerged as much as four feet
>
> Hi Chuck,
>

Hello Richard,

Perhaps the context for the summary was unclear.
My objective was simply to identify several
existing recommendations for obtaining RF grounds
on plastic and wood vessels over saltwater.
Regrettably, I lack knowledge of any published
theoretical or empirical comparison of these
proposals that provides an objective, quantifiable
measure of performance.

> Don't know how you got this miss-impression.
>

That it will not work if submerged as much as four
feet? From Roy's report on his NEC-4 modeling. It
is presumably based on the known skin depth of RF
at 14 MHz.

>> 2) Wire in water
>>
>> A one-foot length of wire immersed near water surface is sufficient for
>> near-perfect results based on W7EL's NEC-4 model results. Assumed
>> performance is similar to grounding plate.
>
> This conclusion is conflict with the first, making it a mystery how
> you came to either in summary. The focus on "water surface" is as
> though you are trying to force it work like a pool of mercury. Water
> is NOT a ground plane in the sense of conductivity. Water is a
> terrible conductor. It is only its huge mismatch with air that gives
> it such superb propagation, not match, characteristics. Distinguish
> between the two.
>

Well, some of what you are saying is pretty much
what I had thought. If you read my posts on the
other thread, you'll see where I was heading.

We agree that seawater's conductivity is lower
than copper's but greater than earth's. We agree
that a single ground rod driven into the earth
will perform poorly as the only return path for a
vertical antenna over land, but at least in some
cases will perform better than if it were not
there. Will a wire dipped into the sea perform
better than the ground rod driven into the earth?
I doubt there is much disagreement on that, even
though water might be characterized in relative
terms as a "terrible conductor". The only relevant
question, then, is "how much better?" and so far,
the only numerical answer that I am aware of has
come from NEC modeling.

The characterization I reported of a wire dipped
into the sea is based on Roy's modeling, assuming
I have not misunderstood of course. Others have
made the same point, but now we have model results
to support it.

BTW, I have just discovered a response from Roy to
one of my posts on the other thread that is
available on Google, but has never shown up on
either of the two newsgroup subscriptions I have.
Roy addressed some of my concerns in that post so
if you have not seen it you might do a search for
it on Google.

>> 3) Radials
>>
>> Even shortened (loaded) radials elevated over seawater work as
>> near-perfect based on N6LF's NEC-4 modeling. Objections to radials are
>
> The objections are they are wholly unnecessary when ground is so
> easily achieved by conventional means. You would need 120 radials to
> shield against the loss you perceive, and that loss doesn't matter

What loss is it that I perceive? N6LF's results
show near lossless results with only four
shortened radials over seawater.

> when you stand to gain so much in propagation. You couldn't even
> field a tenth of these radials. At HF, and maintaining their tune
> and symmetry, you would be lucky to fit in 2.

Other studies have shown a single elevated radial
over land to lose less than one dB over a perfect
ground plane.

At that stage of the
> game, there is absolutely no match advantage over conventional
> techniques aboard a small craft (and at HF you don't qualify for any
> thing other).

>> 4) Counterpoise (i.e., mast, forestay, shrouds, lifelines, engine, metal
>> tanks, 100 square feet of copper, keel, rudder, etc. bonded together)
>>
>> This type of
>> counterpoise is also the approach recommended by both Icom and SGC.
>
> Only because it is already available and doesn't ask you to go any
> further for no obvious advantage.
>

Well, what makes life interesting is that to
advocates of the other approaches, there are
obvious advantages.

>> 5) OCF dipole w/horizontal component along deck
>>
>> Not commonly used,
>
> Who would choose a complicated design over so many simple ones?
>

Multiple resonant radials that cover the popular
marine and ham bands on a small boat are not seen
by all as simple. One might ask the same question
of those who advocate the counterpoise approach,
since the wire in the water is simpler. I think
choosing the best system (broadly defined to also
consider operation over fresh water and
near-vertical radiation when important) will be
easy if we can only get some objective,
reproducible data and/or analysis.

>> Is that where it stands, folks?
>
> If you want a dipole, make a VERTICAL dipole, even a lousy one.
>

Certainly worthy of consideration. Many backstay
antennas are probably operated as half-wave
vertical dipoles (end-fed, of course) above 10 MHz
or so.

> Finally, and to repeat, learn the distinction between matching and
> propagation. Your focus on matching issues is like seeing your glass
> 3/4ths empty. Looking at the propagation advantages in comparison is
> like seeing a pitcher of water nearby that will fill that glass a
> dozen times.

I didn't address any matching issues at all that I
can see, Richard. Sorry if I misled you.

All of the alternatives utilize the same seawater
for propagation and the same vertical radiator.
They differ in whether there is any high-angle
radiation from a horizontal radiator, and possibly
in the magnitude of their "ground return losses."

Appreciate your comments.

73,

Chuck

>
> 73's
> Richard Clark, KB7QHC

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3403. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 21:35:04 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e5l269ufp1@avnika.corp.mot.com>
Source record: 58546

> news:4475127b$0$1010$39cecf19@news.twtelecom.net...
> > Yuri Blanarovich wrote:
> >
> >> There is another potential problem if feeding two amps to two antennas
> >> that are reasonably close: RF from one antenna is induced into the
other
> >> antenna, gets fed into the amp and causes some interference (mixing ?)
> >> that shows up as a raspy signal.
> >> Tried it, and heard it on another station attempting the same setup.
> >> It seems that it would be easier to control the phasing at the input of
> >> the PAs, but the above effect messes it up, unless antennas are widely
> >> separated and they do not "feed" each other setup.
> >> So, it appears that it is better to use one bigger amp and use proper
> >> phasing to feed the two or more antennas.
> >>

I hope I did not cut incorrectly in the complex post...

The effect is that the *impedance* looking into each antenna will change due to the mutual coupling of the two antennas. You can also think of it as each antenna is not just staring into open space, but you can consider the field of the other antenna to be changing the space around the first antenna (and visa versa). It is also not umlike simply putting a reflecting plane or other paracitic elements neat a driven element - the feed point impedance changes. This power, being from the same transmitter, is coherent (phase locked) and therefore changes the current that flows which manifests itself as an impedance change. Given the current from the feed line voltage and then the superposition of the current induced from the other antenna, you get a new current that flows (aparently from the feed line voltage) and therefore it appears as a different impedance (from the feed line's perspective). I hope one of these analogies works for you.
This can indeed cause amplifiers to do funny things if they can't handle the resulting SWR. If you correctly match to the new impedances, there should be no problems, just the new antenna radiation pattern.

Side bar:
For some situations, the resistive part of this new impedance can even go negative. This means that this antenna is absorbing power, not radiating it. This can happen in phased, directive arrays used in broadcast. A friend of mine described such a situation that vexed him for a while until he improved his calculations to be more general to be applicable to this situation (to get the correct result).
Don't ask me how to match to a negative resistance. All I know is that given some certain directional pattern that is desired, this happens and with the proper math you can design a matching network that works and

restores order to the universe and keeps the big bang happy (:-)

73, Steve, K9DCI

3404. Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 21:42:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <463s72hn6rjebqshn3slpe6hk1hlo8ec08@4ax.com>
Source record: 58544

Hi All,

Just a bit of RF history obtained from "Forty Years of Radio Research," by George C. Southworth while I was doing some research for a correspondent:

"As early as 1921, Dr. A.W. Hull of the General Electric Company described the characteristics of a device which he called a magnetron. It consisted of an axial filament surrounded by a cylindrical plate between which a constant radial electric field could be impressed. Superimposed on this arrangement and at right angles to the electric field was an axial magnetic field.

... "Later the inductive load was reduced to a tiny Lecher frame. A magnetron with this configuration was placed inside a small waveguide by Dr. Harold S. Howe of the University of Michigan to obtain a top frequency of nearly 50,000 mc. (1938).

"A few years earlier, 1934, Dr. Cleeton and Professor Williams also of the University of Michigan had ... discovered a pronounced absorption band for ammonia at about 27,300 mc. This ultimately led to a new time-keeping device of high accuracy.

... "Finally the plate was made from a single block of copper with appropriate segments milled inside its hollow periphery, each representing an individual oscillator. This important step was taken by physicists at the University of Birmingham in the late thirties. They also applied plate power in short pulses and at much higher levels than had been used previously. This was not only more appropriate for good magnetron operation but it provided an almost ideal signal for radar use. ... Details of this device were brought to America first by Sir Robert Watson-Watt and Drs. Cockcroft and Bowen in September, 1940."

73's
Richard Clark, KB7QHC

3405. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 22:31:11 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1149114670.949161.204380@f6g2000cwb.googlegroups.com>
Source record: 58547

I think most of this, and a whole lot more concerning where the development of the cavity magnetron lead, is in Robert Buderi's book, "The Invention That Changed the World." Potentially very interesting stuff for any techie.

In the last paragraph you quoted, there is what I consider a mistake that can lead to misunderstanding of how things work. It suggests that each cavity is an oscillator. The cavities are no more oscillators than a bottle. Each is a resonator, whose resonance is excited by the stream of electrons flying past, in much the same way as the bottle is a Helmholz resonator which is excited by the stream of air flowing past. In each case, what's going on in the resonator affects the stream flowing by in a way that lets it further excite the resonator synchronously with the resonant energy that's already there.

Cheers,
Tom

Richard Clark wrote:
> Hi All,
>
> Just a bit of RF history obtained from "Forty Years of Radio
> Research," by George C. Southworth while I was doing some research for
> a correspondent:
>
> "As early as 1921, Dr. A.W. Hull of the General Electric Company
> described the characteristics of a device which he called a
> magnetron. It consisted of an axial filament surrounded by a
> cylindrical plate between which a constant radial electric field
> could be impressed. Superimposed on this arrangement and at right
> angles to the electric field was an axial magnetic field.
>
> ... "Later the inductive load was reduced to a tiny Lecher frame.
> A magnetron with this configuration was placed inside a small
> waveguide by Dr. Harold S. Howe of the University of Michigan to
> obtain a top frequency of nearly 50,000 mc. (1938).
>
> "A few years earlier, 1934, Dr. Cleeton and Professor Williams
> also of the University of Michigan had ... discovered a pronounced
> absorption band for ammonia at about 27,300 mc. This ultimately
> led to a new time-keeping device of high accuracy.
>
> ... "Finally the plate was made from a single block of copper with
> appropriate segments milled inside its hollow periphery, each
> representing an individual oscillator. This important step was

> taken by physicists at the University of Birmingham in the late
> thirties. They also applied plate power in short pulses and at
> much higher levels than had been used previously. This was not
> only more appropriate for good magnetron operation but it
> provided an almost ideal signal for radar use. ... Details of this
> device were brought to America first by Sir Robert Watson-Watt and
> Drs. Cockcroft and Bowen in September, 1940."
>
> 73's
> Richard Clark, KB7QHC

3406. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 22:33:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7k3s725tjkumuqplvjslhb7vr0ei4o292g@4ax.com>
Source record: 58548

On Wed, 31 May 2006 16:44:40 -0400, chuck <nospam@nospam.net> wrote:

>That it will not work if submerged as much as four
>feet? From Roy's report on his NEC-4 modeling. It
>is presumably based on the known skin depth of RF
>at 14 MHz.

Hi Chuck,

You are drawing conclusions from different facts. These plates are successfully put to this very purpose every day. There is no model that says that a dynaplate submerged 4 feet "will not work." The object lesson is that it will merely be a tie point to the length of wire that is working every inch to it, and that the current in the last inch will, in all likelihood, not see any benefit of that plate, IF AND ONLY IF that wire travels through the water, or in very close proximity to the water. The plate is not ineffective, it is merely redundant.

If the wire travels through the interior of the boat, where most transmitters reside, that dynaplate will conduct just as well, and at as high a current as is necessary for a modestly efficient connection. This is, after all, the whole point of installing these plates.

Other's have commented you can as easily wire to the engine (if you have one) to create one great big gobstopper of a capacitor to the water. Capacitors work quite effectively too, they are called counterpoises. No engine? The same surface area in metal will substitute. Too much surface area to equal effectively? Move the capacitor plate closer to the hull, and reduce the area by proportion. Does it matter your hull is fiberglass? None whatever.

>What loss is it that I perceive? N6LF's results
>show near lossless results with only four
>shortened radials over seawater.

You still don't know how much loss there is through conventional means, then, do you? "Near" lossless is not quantitative data.

>Other studies have shown a single elevated radial
>over land to lose less than one dB over a perfect
>ground plane.

You have terrible sources for "other studies," then. That elevated radial must be up a wavelength. How does this relate to "RF grounding methods for sailboats?"

>Well, what makes life interesting is that to
>advocates of the other approaches, there are
>obvious advantages.

You still don't have anything that amounts to more than testimonials.

>Multiple resonant radials that cover the popular
>marine and ham bands on a small boat are not seen
>by all as simple.

Exactly. Why would you want to do it?

>> If you want a dipole, make a VERTICAL dipole, even a lousy one.
>Certainly worthy of consideration. Many backstay
>antennas are probably operated as half-wave
>vertical dipoles (end-fed, of course)

Then it ceases to be a dipole.

>I didn't address any matching issues at all that I
>can see, Richard. Sorry if I misled you.

Every comment of yours that contains counterpoise, radial, loss, skin depth, length of wire, or connection is a matching issue.

>All of the alternatives utilize the same seawater
>for propagation and the same vertical radiator.
>They differ in whether there is any high-angle
>radiation from a horizontal radiator, and possibly
>in the magnitude of their "ground return losses."

If they all utilize the same seawater for propagation and the same vertical radiator, they all suffer equally - it stands to reason there is no difference given all the "sameness." It also stands to reason by your assertion that they differ, that they do not all use the same seawater or vertical.... Which is it? Let's skip that and cut to the heart of the matter. How MUCH different?

Start with a conventional untuned vertical using a dynaplate and tell me, in dB, how much better any other scheme is. Let's confine this to a practical situation where the rig is under cover and inside the boat and that you need two leads, one from the tuner antenna connection, and another from the tuner ground connection.

73's
Richard Clark, KB7QHC

3407. Re: Brainteaser

Newsgroup: rec.radio.amateur.antenna
Date: 2006-05-31 22:47:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <b2pfg.115479$F_3.90769@newssvr29.news.prodigy.net>
Source record: 58549

"Jim Kelley" <jwkelley@uci.edu> wrote:
> I gotta tell ya
> though, it reminds me a little of one of those guys who stands out on the street
> corner shaking his fist and shouting at traffic.

Most of us have agreed to cut out the ad hominem attacks and non-
technical crappola. How about you joining us in that endeavor?

What is your technical objection to what I have posted?
--
73, Cecil http://www.qsl.net/w5dxp

3408. Re: New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 00:06:47 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <uhbs721jsnvbesjs79o5l8u2chghth7jo9@4ax.com>
Source record: 58550

On Wed, 31 May 2006 18:06:32 GMT, Bob Miller <NOSPAM@neosoft.com>
wrote:

>For the Wireman's ladderline # 551, where would I find the line loss
>at 10 mhz in db per 100 feet (and why feet, when the other parameters
>are in meters?)?

~0.17dB
--

3409. Re: New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 00:15:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <sqSdnSTzbI07r-PZnZ2dnUVZ8qCdnZ2d@bt.com>
Source record: 58551

"Old Ed" asked -
>
> But I am curious: What program inputs are required to
> calculate losses for tuners and baluns? Schematics? ;-)
> Coil Q? Wire type and gauge? Loss factors for ferrites?
> And how would one KNOW these parameters for real-world
> examples, say a Palstar AT-1500DT versus an Ameritron
> ATR-30?
==========

Ed,

I've just spent half an hour thinking about how to answer your question without having to write books on the various subjects.

What sort of gadgets are a Palstar AT-1500AT and an Ameritron ATR-30? Who are Palstar and Ameritron anyway?

Manufacturers might know. Have you tried Google?

Reg.

3410. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 00:39:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <q2ds725nad59vcqekafmjqtcuc9qeb5pfh@4ax.com>
Source record: 58552

On 31 May 2006 15:31:11 -0700, "K7ITM" <k7itm@msn.com> wrote:

>In the last paragraph you quoted, there is what I consider a mistake
>that can lead to misunderstanding of how things work. It suggests that
>each cavity is an oscillator. The cavities are no more oscillators
>than a bottle.

Hi Tom,

I defer to the author's explanation, and the nature of writing for a wide audience. This group would be such an example.

The author mentions, in portions not quoted, that the electron beam/current/what-have-you streams at a grazing angle along the arc of the inside of the plate, crossing these openings. The cavities are, then, parallel plate loads.

It stands to reason, on the other hand, that there is only one output from ostensibly one cavity whose fields are sharing the passing stream of electrons that is also resonating. In fact, this operation (also described by the author) led to understanding and development of the Klystron tube and other traveling wave amplifiers.

73's
Richard Clark, KB7QHC

3411. Re: Mobile rigging

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 01:42:29 UTC
From: nm5k@wt.net
Message-ID: <1149126149.855845.147040@c74g2000cwc.googlegroups.com>
Source record: 58553

Jerseyj wrote:
> Hi all,
> Just got a new 2006 Forrester and want to get my 2M/440 rig mounted
> along with a mag mount antenna. Someone pointed me to the "rig of the
> month" web site, but that site appears dead..
>
> Anyone have any web sites that I can look at for information on setting
> up my radio in my car ?

Not to much to study...Find a good place for the radio.
Mount it. Throw the antenna on the car, and run the
coax through the best opening you can find. The only
real important thing to consider is the power source.
Don't !!! use cig lighter plugs, etc. Run fairly thick
wire directly to the battery, and fuse both the + and -
wires. If you do that, you may have to find a plug or
hole in the firewall. Most have a rubber plug of some
type. If not, you might have to drill a hole.
But at least you won't have problems with the rig
from big voltage drops due to too thin a wire, or
crusty corroded cig lighter connections/socket.
MK

3412. Re: New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 02:04:33 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <YfGdnV88g7Wr0ePZnZ2dnUVZ8sidnZ2d@bt.com>
Source record: 58554

Bob asked -
> For the Wireman's ladderline # 551, where would I find the line loss
> at 10 mhz in db per 100 feet (and why feet, when the other
parameters
> are in meters?)?

==========
Bob,

If you don't know the attenuation of your transmission line you shouldn't be using it.

A standard method of defining the vital attenuation parameter of a transmission lines is "Decibels per 100 feet at some frequency or other." It is probably stated in that form in bibles such as ARRL publications.

And a reputable American manufacturer will probably state it in his sales catalogue. Or he ought to.

Frequency is mentioned because knowing the attenuation at one frequency allows it to be accurately calculated at any other frequency. As is done thousands ot times in the program.

The program asks for dB per 100 feet because, out of consideration for USA citizens, the foot is the unit of length with which they are most familiar. And for the rest of the World there is a statement in the program notes that "100 feet = 30 metres."

The alternative to asking for dB per 100 feet at 10 MHz is to provide a look-up table which lists by name the attenuation of hundreds of different types of transmission line used in the USA and the rest of the World.

Or the program could ask for conductor diameters and conductor spacing in the case of twin lines, inner and outer diameters for coaxial lines, also the dimensions and electrical properties of the insulating materials. And then calculate attenuation versus frequency.

A large number of numerical program input items would detract from a program's usefulness. Users would soon get fed up with using it. And the programmer would get tired of writing any more.

Attenuation and Zo are the most important parameters of a transmission line. To keep things simple for both program users AND the programmer it is best that both parameters be entered directly.

Try Google.

The main purpose of the program is to calculate the impedance
presented to the tuner. For accuracy, line loss must be taken into
account.

Reg.

3413. Re: Mobile rigging

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 02:58:18 UTC
From: jawod <jawod@fuse.net>
Message-ID: <447E57CA.4000105@fuse.net>
Source record: 58555

nm5k@wt.net wrote:
> Jerseyj wrote:
>
>>Hi all,
>>Just got a new 2006 Forrester and want to get my 2M/440 rig mounted
>>along with a mag mount antenna. Someone pointed me to the "rig of the
>>month" web site, but that site appears dead..
>>
>>Anyone have any web sites that I can look at for information on setting
>>up my radio in my car ?
>
>
> Not to much to study...Find a good place for the radio.
> Mount it. Throw the antenna on the car, and run the
> coax through the best opening you can find. The only
> real important thing to consider is the power source.
> Don't !!! use cig lighter plugs, etc. Run fairly thick
> wire directly to the battery, and fuse both the + and -
> wires. If you do that, you may have to find a plug or
> hole in the firewall. Most have a rubber plug of some
> type. If not, you might have to drill a hole.
> But at least you won't have problems with the rig
> from big voltage drops due to too thin a wire, or
> crusty corroded cig lighter connections/socket.
> MK
>
Large wires, Anderson plugs are good ideas.
I have a question, though. If you're running, say 10 to 15 watts to a
automatic screwdriver HF antenna, can you get by with cig lighter
connection?

Thanks,

John

3414. Re: Mobile rigging

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 03:09:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hTsfg.43700$Lm5.31833@newssvr12.news.prodigy.com>
Source record: 58556

"jawod" <jawod@fuse.net> wrote:
> I have a question, though. If you're running, say 10 to 15 watts to a
> automatic screwdriver HF antenna, can you get by with cig lighter
> connection?

My GMC pickup has two auxiliary connections in addition to the
cigarette lighter. My IC-706 runs 100W SSB just fine off of one
of those aux connections. But pickups may have bigger wires than
cars.
--
73, Cecil http://www.qsl.net/w5dxp

3415. Re: Mobile rigging

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 03:19:22 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <127sn5qifoerc85@corp.supernews.com>
Source record: 58557

jawod wrote:
> nm5k@wt.net wrote:
>
>> Jerseyj wrote:
>>
>>> Hi all,
>>> Just got a new 2006 Forrester and want to get my 2M/440 rig mounted
>>> along with a mag mount antenna. Someone pointed me to the "rig of the
>>> month" web site, but that site appears dead..
>>>
>>> Anyone have any web sites that I can look at for information on setting
>>> up my radio in my car ?
>>
>>
>>
>> Not to much to study...Find a good place for the radio.
>> Mount it. Throw the antenna on the car, and run the
>> coax through the best opening you can find. The only
>> real important thing to consider is the power source.
>> Don't !!! use cig lighter plugs, etc. Run fairly thick
>> wire directly to the battery, and fuse both the + and -
>> wires. If you do that, you may have to find a plug or
>> hole in the firewall. Most have a rubber plug of some
>> type. If not, you might have to drill a hole.
>> But at least you won't have problems with the rig
>> from big voltage drops due to too thin a wire, or
>> crusty corroded cig lighter connections/socket. MK
>>
> Large wires, Anderson plugs are good ideas.
> I have a question, though. If you're running, say 10 to 15 watts to a
> automatic screwdriver HF antenna, can you get by with cig lighter
> connection?
>
> Thanks,
>
> John
It is still recommended that you use direct dedicated wiring to power
your radio. You may be at 15 watts to day, tomorrow who knows.

Dave WD9BDZ

3416. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 03:25:01 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <MaOdndRgGqOWwuPZRVnygg@bt.com>
Source record: 58558

Richard,

Randall & Boot's original magnetron used to be displayed in the London, England, Science Museum. It was all by itself in a very large, securely locked glass case. No magnet. I don't know whether it is still there.

It lay there, all forlorn, hardly noticed, about the same insignificant size as a small, half-size, rusty can of baked beans.

My sentiments lie with R and B, slaving away in the laboratory at Birmingham University while the Luftwaffer rained down bombs and incendiaries on the city. At the time, the top-secret goings-on were unknown to me, and I spent my time in a corrugated-iron air raid shelter in the back garden just a few miles down the road.

A few years later, having joined the RAF as a Radar technician, I had the pleasure of holding a production model in one hand and the magnet in the other. At the other end of the workshop bench a parabolic dish rotated once every two seconds. It is not true that a 50 kW peak pulse power at 3000 Mhz sterilises one's reproductive organs. I have fathered 5 children.

It was left to the Japanese to populate the World's kitchens with microwave ovens. Beyond the first, no magnetron has ever been made in the industrial city of Birmingham, England. But they don't make many motor cars there any more either.

3417. Re: New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 03:29:23 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <8ins729020t3dadtrmriuk12tcla4qq0ig@4ax.com>
Source record: 58559

On Thu, 1 Jun 2006 03:04:33 +0100, "Reg Edwards"
<g4fgq.regp@ZZZbtinternet.com> wrote:

>Bob asked -
>> For the Wireman's ladderline # 551, where would I find the line loss
>> at 10 mhz in db per 100 feet (and why feet, when the other
>parameters
>> are in meters?)?
>
>=====================================
>Bob,
>
>If you don't know the attenuation of your transmission line you
>shouldn't be using it.
>
>A standard method of defining the vital attenuation parameter of a
>transmission lines is "Decibels per 100 feet at some frequency or
>other." It is probably stated in that form in bibles such as ARRL
>publications.
>
>And a reputable American manufacturer will probably state it in his
>sales catalogue. Or he ought to.
>
>Frequency is mentioned because knowing the attenuation at one
>frequency allows it to be accurately calculated at any other
>frequency. As is done thousands ot times in the program.
>
>The program asks for dB per 100 feet because, out of consideration for
>USA citizens, the foot is the unit of length with which they are most
>familiar. And for the rest of the World there is a statement in the
>program notes that "100 feet = 30 metres."
>
>The alternative to asking for dB per 100 feet at 10 MHz is to provide
>a look-up table which lists by name the attenuation of hundreds of
>different types of transmission line used in the USA and the rest of
>the World.
>
>Or the program could ask for conductor diameters and conductor spacing
>in the case of twin lines, inner and outer diameters for coaxial
>lines, also the dimensions and electrical properties of the insulating
>materials. And then calculate attenuation versus frequency.
>
>A large number of numerical program input items would detract from a
>program's usefulness. Users would soon get fed up with using it. And

>the programmer would get tired of writing any more.
>
>Attenuation and Zo are the most important parameters of a transmission
>line. To keep things simple for both program users AND the programmer
>it is best that both parameters be entered directly.
>
>Try Google.
>
>The main purpose of the program is to calculate the impedance
>presented to the tuner. For accuracy, line loss must be taken into
>account.
>----
>Reg.
>

Got everything plugged in -- works very nicely -- thanks... fun to
change line & feedline length and see what that does at various
frequencies.

bob
k5qwg

3418. Re: New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 03:49:04 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <pjos72tbep10ppso1sioklm765oi08vkin@4ax.com>
Source record: 58560

On Thu, 01 Jun 2006 00:06:47 GMT, Owen Duffy <owen@no.where> wrote:

>On Wed, 31 May 2006 18:06:32 GMT, Bob Miller <NOSPAM@neosoft.com>
>wrote:
>
>
>>For the Wireman's ladderline # 551, where would I find the line loss
>>at 10 mhz in db per 100 feet (and why feet, when the other parameters
>>are in meters?)?
>
>~0.17dB

You didn't ask, but you need to know Zo is approx 400 ohms.
--

3419. Re: New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 04:35:17 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <98ufg.514$jB5.45@newsread3.news.pas.earthlink.net>
Source record: 58561

See below...

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:sqSdnSTzbI07r-PZnZ2dnUVZ8qCdnZ2d@bt.com...
>
> "Old Ed" asked -
> >
> > But I am curious: What program inputs are required to
> > calculate losses for tuners and baluns? Schematics? ;-)
> > Coil Q? Wire type and gauge? Loss factors for ferrites?
> > And how would one KNOW these parameters for real-world
> > examples, say a Palstar AT-1500DT versus an Ameritron
> > ATR-30?
> ==
>
> Ed,
>
> I've just spent half an hour thinking about how to answer your
> question without having to write books on the various subjects.
>
> What sort of gadgets are a Palstar AT-1500AT and an Ameritron
> ATR-30? Who are Palstar and Ameritron anyway?
>
> Manufacturers might know. Have you tried Google?
> ----
> Reg.
>
Reg,

Perhaps I assumed too much about amateur radio being a global
market.

Palstar is the brand name of a popular line of high-end antenna
tuners (aka transmatches) that are made in the U.S.A. Ameritron
is best known for their broad line of H.F. power amplifiers, but
they also make a couple of antenna tuners; the ATR-30 is one.
(They are now a division of MFJ; and it would be amazing if
you haven't heard of MFJ.)

Feel free to substitute antenna tuner models that are more familiar
to you into my question, if that will make it easier to understand.
I'll also try restating the question:

What parameters does a user input into your newly-posted program
in order to estimate tuner and/or balun losses?

Predicting such losses seems inherently difficult to me; and even if the program could handle all the necessary parameters, I have a hard time seeing how one could obtain the necessary values to characterize typical commercial (or homebrew) tuners and/or baluns.

Re Google, doing a search on "Palstar" leads one straight to their products, including the AT-1500 series:
http://www.palstar.com/at1500cv.php
Similarly, doing a Google search on Ameritron leads one straight to their products, including the ATR-30:
http://www.ameritron.com/products.php?prodid=ATR-30

But I am sure that neither manufacturer has posted parameter values to use in your program--despite your well-deserved notoriety in this NG. So I am quite sure that Googling for those would be unproductive.

Ed

3420. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 05:59:04 UTC
From: richardharrison@webtv.net
Message-ID: <18384-447E8228-1115@storefull-3256.bay.webtv.net>
Source record: 58562

Reg, G4FGQ wrote:
"It was left to the Japanese to populate the World`s kitchens with microwave ovens."

The Japanese proved adept at improving and producing high quality technical products. Japanese didn`t market the first microwave oven. Raytheon introduced its "Radar Range" soon after WW-2 ended. Japanese copies were innovative, reliable, and cheap, so they won instant acceptance worldwide.

The magnetron has been called the best import ever from Britain and I think that comparison even included Bob Hope and Liz Taylor. At the time of the magnetron gift to the U.S., British war production was already bursting at the seams and the U.S. was well advanced in radar and had a few tricks up its sleeve to improve the British gear.
I`ve noticed early British airborne radar using yagi antennas. That seemed quaint to me.

Best regards, Richard Harrison, KB5WZI

3421. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 07:07:42 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <kmieVPE+IpfEFA1P@ifwtech.co.uk>
Source record: 58563

Richard Harrison wrote:

>At the time
>of the magnetron gift to the U.S., British war production was already
>bursting at the seams and the U.S. was well advanced in radar and had a
>few tricks up its sleeve to improve the British gear.

All the major powers were well advanced in radar at the time. All the ideas were already in place, and engineers everywhere were starting to put them together. However, as Reg points out, freedom from bombing raids is a wonderful aid to creativity.

The USA developed ways to mass-produce the magnetron, notably a method of building up the cavity from laminations rather than needing to have a skilled machinist mill it out from solid (and before Roy gets a word in, they fixed the oil leaks too).

>I`ve noticed early British airborne radar using yagi antennas. That
>seemed quaint to me.

Those were the phased arrays for the earlier VHF radar, and consisted of two or four two-element yagis clustered around the nose (of a two-engined aircraft, obviously). This gave a fairly good forward-looking capability. Both sides did much the same, and given the relatively long wavelength, it's hard to think how better to do it.

The huge benefit of the magnetron was that it operated at much shorter wavelengths, which frees up the antenna design and provides much better spatial resolution - witness the downward-looking "H2S" radar which was the magnetron's first major deployment.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3422. Re: New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 07:58:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <5JqdnUUgauW9AuPZRVnysw@bt.com>
Source record: 58564

"Old Ed" asked -
>
> What parameters does a user input into your newly-posted program
> in order to estimate tuner and/or balun losses?
>
==========
Ed,

Program LINELEN's primary purpose is to calculate the impedance presented to a tuner. It will assist the user to change the length of the transmission line, hopefully to bring the impedance into a range of values which can be better handled by a tuner.

The program cannot predict tuner losses. It has not been designed to so.

You are asking what input data would be required if I wrote another program which included calculation of losses in a tuner.

There is already a program named T_TUNER which designs a common or garden T-tuner and also estimates its losses. In practice, nearly every manufacturer uses the same basic circuit which consists of two variable capacitors, each of about 350 pF maximum, 30 pF minimum, and a coil which may be tapped to change bands or it may be a variable roller-coaster.

For a different tuner circuit another program is needed. There are L_TUNER, Pi_L_NET, PI_TANK. And DIPOLE3 which deals with antenna + balanced line + balun + coax + Tuner Design.

Download program T_TUNER and read the informative introductory notes.

Input data includes maximum capacitor settings. The program automatically prevents maximum capacitor settings from being exceeded. This is a form of technical information which restricts practical operation. Minimum component settings are not called for. But the program user must keep in mind, when calculated capacitor settings are less than the actual value with capacitor vanes completely unmeshed, the tuner won't work.

The program asks for capacitor Q and coil Q. The progam user will have to take the tuner out of its case and inspect construction and then make use of his experience and judgement. It will not be worthwhile taking the thing apart to measure component Q. Q is needed to estimate component losses for a given transmitter power. The program gives advice about estimation of Q values.

When a program includes design of a coil, length, diameter, wire gauge, etc., its Q is always calculated. Whether the power loss is calculated depends on program application.

The program user will also have to estimate maximum working volts of the capacitors although this is not a program input. But the program does calculate and display actual capacitor volts for a given transmitter power.

Equipment power related performance parameters are nearly always estimates. T_TUNER has built-in estimates. There is no point in calculating to a greater accuracy than contained in the user's input data. Very often crude estimates are good enough. As the programmer I reserve the right to decide just how crude. And you can't argue with me. You can always have your money back. ;o)

The same applies, for example, to estimates of radiated RF power for a given transmitter output power when there are losses in the SWR meter, the tuner, the balun, transmission line, antenna, and the ground.

It is only necessary for a program user to realise that he, himself, invariably makes estimates.

Most amateurs and many professional enginers suffer from delusions of accuracy, often proudly naming their measuring instruments.

Reg, G4FGQ.

3423. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 08:32:51 UTC
From: Jon Kåre Hellan <dev@null.com>
Message-ID: <1m1wu9qnrg.fsf@persaunet.uninett.no>
Source record: 58565

chuck <nospam@nospam.net> writes:

> Jon Kåre Hellan wrote:
> We don't seem to have widely used, descriptive names for these
> configurations. Cecil is correct, and perhaps the OCF referred to
> should be called an OCF "L". The vertical radiator with a single,
> elevated, horizontal, resonant "radial" perhaps should be called an
> "L" dipole.
>
> On inspection, either antenna, on a boat with a tuner at the
> feedpoint, could be mistaken for the other. You could tell the
> difference only by observing how the antenna is operated. If the
> antenna is operated only on those frequencies for which the horizontal
> element is an odd multiple of a 1/4 wavelength, we would call the
> antenna an "L" dipole (or whatever).
>
> If that same antenna were operated not only on those frequencies, but
> on all others (HF spectrum) as well, we would call it an OCF "L".
>
> But if, on inspection, the antenna has multiple resonant radials, that
> would unambiguously differentiate it from the OCF.
>
> Whenever the two antennas are physically identical, they will
> obviously operate identically.
>
> Make sense, Jon? Sorry for the confusion.

Sure. Thanks.

3424. test

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 09:16:22 UTC
From: bob <bob@gmail.com>
Message-ID: <447eb06b$1_1@news.iprimus.com.au>
Source record: 58566

test

3425. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 10:50:41 UTC
From: bob <bob@gmail.com>
Message-ID: <447ec69c_1@news.iprimus.com.au>
Source record: 58567

chuck wrote:
> Richard Clark wrote:
>> On Tue, 30 May 2006 09:21:56 -0400, chuck <nospam@nospam.net> wrote:
>>
>>> If anyone spots any errors of fact or significant omissions, I'd
>>> welcome appropriate "recalibration". Thanks in advance.
>>>
>>> 1) Grounding plates
>>>
>>> Will not work if submerged as much as four feet
>>
>> Hi Chuck,
>>
>
>
> Hello Richard,
>
> Perhaps the context for the summary was unclear. My objective was simply
> to identify several existing recommendations for obtaining RF grounds on
> plastic and wood vessels over saltwater. Regrettably, I lack knowledge
> of any published theoretical or empirical comparison of these proposals
> that provides an objective, quantifiable measure of performance.
>
>> Don't know how you got this miss-impression.
>>
>
> That it will not work if submerged as much as four feet? From Roy's
> report on his NEC-4 modeling. It is presumably based on the known skin
> depth of RF at 14 MHz.
>
>>> 2) Wire in water
>>>
>>> A one-foot length of wire immersed near water surface is sufficient for
>>> near-perfect results based on W7EL's NEC-4 model results. Assumed
>>> performance is similar to grounding plate.
>>
>> This conclusion is conflict with the first, making it a mystery how
>> you came to either in summary. The focus on "water surface" is as
>> though you are trying to force it work like a pool of mercury. Water
>> is NOT a ground plane in the sense of conductivity. Water is a
>> terrible conductor. It is only its huge mismatch with air that gives
>> it such superb propagation, not match, characteristics. Distinguish
>> between the two.
>>

>
> Well, some of what you are saying is pretty much what I had thought. If
> you read my posts on the other thread, you'll see where I was heading.
>
> We agree that seawater's conductivity is lower than copper's but greater
> than earth's. We agree that a single ground rod driven into the earth
> will perform poorly as the only return path for a vertical antenna over
> land, but at least in some cases will perform better than if it were not
> there. Will a wire dipped into the sea perform better than the ground
> rod driven into the earth? I doubt there is much disagreement on that,
> even though water might be characterized in relative terms as a
> "terrible conductor". The only relevant question, then, is "how much
> better?" and so far, the only numerical answer that I am aware of has
> come from NEC modeling.
>
> The characterization I reported of a wire dipped into the sea is based
> on Roy's modeling, assuming I have not misunderstood of course. Others
> have made the same point, but now we have model results to support it.
>
> BTW, I have just discovered a response from Roy to one of my posts on
> the other thread that is available on Google, but has never shown up on
> either of the two newsgroup subscriptions I have. Roy addressed some of
> my concerns in that post so if you have not seen it you might do a
> search for it on Google.
>
>
>>> 3) Radials
>>>
>>> Even shortened (loaded) radials elevated over seawater work as
>>> near-perfect based on N6LF's NEC-4 modeling. Objections to radials are
>>
>> The objections are they are wholly unnecessary when ground is so
>> easily achieved by conventional means. You would need 120 radials to
>> shield against the loss you perceive, and that loss doesn't matter
>
> What loss is it that I perceive? N6LF's results show near lossless
> results with only four shortened radials over seawater.
>
>> when you stand to gain so much in propagation. You couldn't even
>> field a tenth of these radials. At HF, and maintaining their tune
>> and symmetry, you would be lucky to fit in 2.
>
> Other studies have shown a single elevated radial over land to lose less
> than one dB over a perfect ground plane.
>
> At that stage of the
>> game, there is absolutely no match advantage over conventional
>> techniques aboard a small craft (and at HF you don't qualify for any
>> thing other).
>

>>> 4) Counterpoise (i.e., mast, forestay, shrouds, lifelines, engine, metal
>>> tanks, 100 square feet of copper, keel, rudder, etc. bonded together)
>>>
>>> This type of
>>> counterpoise is also the approach recommended by both Icom and SGC.
>>
>> Only because it is already available and doesn't ask you to go any
>> further for no obvious advantage.
>>
>
> Well, what makes life interesting is that to advocates of the other
> approaches, there are obvious advantages.
>
>>> 5) OCF dipole w/horizontal component along deck
>>>
>>> Not commonly used,
>>
>> Who would choose a complicated design over so many simple ones?
>>
>
> Multiple resonant radials that cover the popular marine and ham bands on
> a small boat are not seen by all as simple. One might ask the same
> question of those who advocate the counterpoise approach, since the wire
> in the water is simpler. I think choosing the best system (broadly
> defined to also consider operation over fresh water and near-vertical
> radiation when important) will be easy if we can only get some
> objective, reproducible data and/or analysis.
>
>
>>> Is that where it stands, folks?
>>
>> If you want a dipole, make a VERTICAL dipole, even a lousy one.
>>
>
> Certainly worthy of consideration. Many backstay antennas are probably
> operated as half-wave vertical dipoles (end-fed, of course) above 10 MHz
> or so.
>
>> Finally, and to repeat, learn the distinction between matching and
>> propagation. Your focus on matching issues is like seeing your glass
>> 3/4ths empty. Looking at the propagation advantages in comparison is
>> like seeing a pitcher of water nearby that will fill that glass a
>> dozen times.
>
> I didn't address any matching issues at all that I can see, Richard.
> Sorry if I misled you.
>
> All of the alternatives utilize the same seawater for propagation and
> the same vertical radiator. They differ in whether there is any
> high-angle radiation from a horizontal radiator, and possibly in the

> magnitude of their "ground return losses."
>
>
> Appreciate your comments.
>
> 73,
>
> Chuck
>
>>
>> 73's
>> Richard Clark, KB7QHC
>
> -----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet
> News==----
> http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+
> Newsgroups
> ----= East and West-Coast Server Farms - Total Privacy via Encryption =----
I would also add that sea waters conductivity is not a consistent as
some seem to think. The salinity of salt water varies with temperature.
NASA has surveyed most of the world oceans using microwave radar and
salinity if far from consistent. This fact combined with tidal flows,
man made pollution from storm water drains and other factors makes
"connecting" to sea water seem dubious.

If we assume you can connect to sea water, do you want to place most of
your current in such a small area? I doubt someone could keep this
connection clean enough in seawater to be efficient. This fact combined
with electrolysis will lay waste to any connection very quickly. Maybe a
gold plated conductor might be able to survive in a salt water environment.

The way most people install radials in yacht would make them elevated,
rather than buried below skin depth. N6LF has indicated in his modeling
that short radials as long as .1 wavelength work just as effectively as
0.5 wavelength radials over sea water. Since you not trying to combat
ground loss whats the point of trying to build a radial field when 2 or
4 .1 wavelength radials will do the job? Besides building a elevated
radial system will have some capacitance to ground. A single radial
should over sea water capture most of not all of the antenna return
currents

Besides from all the posts i have read burying something like a
Dynaplate below skin depths is akin to burying your rf current below a
copper plate. I also believe there is a rule of thumb that 5 skins
depths is the maximum return on investment in using the available
conductive depth of any material. Its probably that its only ever the
piece of wire to the dynaplate thats working as a short radial. I dont
see how anyone can say a dynaplate could ever work when below skin depth?

One thing i am curious about is that if you suspend a radiator or
conductor well below skin depth in air whats the radiation efficiency

like of that conductor? To me on a yacht it looks like a conductor suspended in a U channel suspended in air with the top open and exposed. Maybe it will operate like a waveguide with some cut off frequency, this is a wild guess.Maybe someone who can model conductors below ground can model this. Most yachts have at least 3ft of freeboard above water to play with.

But who knows there seems to conflicting advice on several points. Maybe Roy can clarify all these issues with his models.

Bob

3426. Re: Mobile rigging

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 11:36:13 UTC
From: Buck <not@this.time>
Message-ID: <vrjt72th0hj8uehh4frc99vvv0mbean89g@4ax.com>
Source record: 58568

>Large wires, Anderson plugs are good ideas.
>I have a question, though. If you're running, say 10 to 15 watts to a
>automatic screwdriver HF antenna, can you get by with cig lighter
>connection?
>
>Thanks,
>
>John

Many years ago, I used a 35 watt transceiver on a cigarette lighter plug. Someone told me I was making a mistake. We measured the output of the rig, connected it direct and measured it again. The output of the rig was a few watts lower on the plug as opposed to direct wiring. It wasn't significant enough to be detected on the air, but it proved the inefficiency of using the cigarette lighter for a source of power. I now use #8 wire directly to the battery for all my mobile amateur radio wiring.

I never tried to determine if it was the plug itself, or the wiring that caused the power drop, but I found a website that allows you to calculate the voltage drop of wire given the length, wire size and current.

--
73 for now
Buck
N4PGW

3427. Re: I was going through about ten years of ham catalogs, and I noticed a disturbing trend.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 13:02:07 UTC
From: szekeres@pitt.edu
Message-ID: <e5moguhuo4@usenet01.srv.cis.pitt.edu>
Source record: 58569
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

In article <e5kdbr$se2$1@avnika.corp.mot.com>, "Steve N."
<stuevue.nouskuowuicuz@moutouroula.com> wrote:
> $$
>
>Steve
>
>"Morse or Re-Morse" <see@double.you> wrote in message
>news:eXMdg.13$eB3.11@newsread3.news.pas.earthlink.net...
>> There's an increase in recent years of ham gear Retailers offering an
>> expanding amount of citizen band radios and related products.
>>
>> So Retailers have seen the changes in the type of people that are
>> making up and will be making up the US ham population, and have modified
>> their inventories and marketing to stay in step with it.
>>
>> Gotta keep selling them radio's, Ten-Four?

Well years back there were CB STORES everywhere, and places like Sears
and Wards sold CB's, not anymore. Someone has to sell them.
Very litle interest in CB these days, however its the only real way to try and communicate
with other drivers on the road.

greg

3428. Re: New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 13:13:05 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <0upt725i7osph0v3gherio78gug3sdh8fo@4ax.com>
Source record: 58570

On Thu, 01 Jun 2006 03:49:04 GMT, Owen Duffy <owen@no.where> wrote:

>On Thu, 01 Jun 2006 00:06:47 GMT, Owen Duffy <owen@no.where> wrote:
>
>>On Wed, 31 May 2006 18:06:32 GMT, Bob Miller <NOSPAM@neosoft.com>
>>wrote:
>>
>>
>>>For the Wireman's ladderline # 551, where would I find the line loss
>>>at 10 mhz in db per 100 feet (and why feet, when the other parameters
>>>are in meters?)?
>>
>>~0.17dB
>
>You didn't ask, but you need to know Zo is approx 400 ohms.

Thanks for the info -- I entered 390 ohms.

bob
k5qwg

3429. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 14:02:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <127tsratj3vl886@corp.supernews.com>
Source record: 58571

Steve N. wrote:
> . . .

> Side bar:
> For some situations, the resistive part of this new impedance can even go
> negative. This means that this antenna is absorbing power, not radiating
> it. This can happen in phased, directive arrays used in broadcast. A
> friend of mine described such a situation that vexed him for a while until
> he improved his calculations to be more general to be applicable to this
> situation (to get the correct result).
> Don't ask me how to match to a negative resistance. All I know is that
> given some certain directional pattern that is desired, this happens and
> with the proper math you can design a matching network that works and
> restores order to the universe and keeps the big bang happy (:-)

Negative feedpoint resistances in phased arrays have of course been known for a very long time. One of the example files (4Square.EZ) which comes with EZNEC shows an element with a slightly negative feedpoint resistance. The accompanying "antenna notes" file includes a brief explanation of the phenomenon.

You can't "match to" a negative resistance, because matching requirements are determined by the load, not source, impedance, and an element with a negative resistance is a source rather than a load. But there's no necessity to match individual elements and, in fact, attempting to do so complicates the problem of achieving the desired element current ratios. One thing you can count on, though -- the resistance of the whole array will be positive. And that's what needs matching.

Roy Lewallen, W7EL

3430. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 14:31:56 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <ETCfg.139$Cp3.116@fe11.lga>
Source record: 58572

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e5l269ufp1@avnika.corp.mot.com...
>> news:4475127b$0$1010$39cecf19@news.twtelecom.net...
>> > Yuri Blanarovich wrote:
>> >
>> >> There is another potential problem if feeding two amps to two antennas
>> >> that are reasonably close: RF from one antenna is induced into the
> other
>> >> antenna, gets fed into the amp and causes some interference (mixing ?)
>> >> that shows up as a raspy signal.
>> >> Tried it, and heard it on another station attempting the same setup.
>> >> It seems that it would be easier to control the phasing at the input
>> >> of
>> >> the PAs, but the above effect messes it up, unless antennas are widely
>> >> separated and they do not "feed" each other setup.
>> >> So, it appears that it is better to use one bigger amp and use proper
>> >> phasing to feed the two or more antennas.
>> >>
>
> I hope I did not cut incorrectly in the complex post...
>
> The effect is that the *impedance* looking into each antenna will change
> due
> to the mutual coupling of the two antennas. You can also think of it as
> each antenna is not just staring into open space, but you can consider the
> field of the other antenna to be changing the space around the first
> antenna
> (and visa versa). It is also not umlike simply putting a reflecting plane
> or
> other paracitic elements neat a driven element - the feed point impedance
> changes. This power, being from the same transmitter, is coherent (phase
> locked) and therefore changes the current that flows which manifests
> itself
> as an impedance change. Given the current from the feed line voltage and
> then the superposition of the current induced from the other antenna, you
> get a new current that flows (aparently from the feed line voltage) and
> therefore it appears as a different impedance (from the feed line's
> perspective). I hope one of these analogies works for you.
> This can indeed cause amplifiers to do funny things if they can't handle
> the
> resulting SWR. If you correctly match to the new impedances, there should
> be no problems, just the new antenna radiation pattern.
>

That could be a challenging task, if one wanted to have switchable or
tunable phasing. Some fancy detection and adjustments needed!?

> Side bar:
> For some situations, the resistive part of this new impedance can even go
> negative. This means that this antenna is absorbing power, not radiating
> it. This can happen in phased, directive arrays used in broadcast. A
> friend of mine described such a situation that vexed him for a while until
> he improved his calculations to be more general to be applicable to this
> situation (to get the correct result).
> Don't ask me how to match to a negative resistance. All I know is that
> given some certain directional pattern that is desired, this happens and
> with the proper math you can design a matching network that works and
> restores order to the universe and keeps the big bang happy (:-)
>
> 73, Steve, K9DCI
>

Hi Steve,

That makes sense (and subject for scientwists to argue "it can't be" :-)

I was considering two scenarios for contesting.
One, mainly for expeditioning case, use two smaller amps (transportation
limitations) and low power (continuous) phasing network between the exciter
and two amps feeding two antennas.
Two, feeding two amps and two antenna systems firing in different directions
(offset stacks).
I tried the crude application of it, and was "bugged" that my CW tone or SSB
modulation was raspy. I knew that rig was OK, firing one leg was no problem
and had to conclude that the problem had to be mutual coupling, feedback and
"beating" back in the amp circuits. I did not pursue the rectification of
the problem, considered it too complicated for what I wanted to do. Learned
it to be a no-no trying to feed phased arrays with individual amplifiers, at
the same frequency.
Feeding antennas that are widely separated with no mutual coupling, firing
in different directions, should not be a problem, as long as there is no
significant signal being induced into the other system.
We will play with some outrageous combinations of about 40 rhombics and
other antennas, capable of being fed by 16 transmitters from the new Tesla
RC QTH of old AT&T Ocean Gate NJ site (makes old W6AM site look like
kindergarten :-). Antenna matrix (wall unit) switch that does the selection
is a piece of art in itself. We have to get rid of pigeons and "paintings"
they left and get the site operational by the fall contest season.

--
73, Yuri Blanarovich, K3BU, VE3BMV

3431. Re: New program. Dipole+Line+Balun+Tuner

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 14:51:58 UTC
From: Old Ed <eXseniorsDeleteThisAndTheX@earthlink.net>
Message-ID: <iaDfg.701$jB5.692@newsread3.news.pas.earthlink.net>
Source record: 58573

See below...

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:5JqdnUUgauW9AuPZRVnysw@bt.com...
>
> "Old Ed" asked -
> >
> > What parameters does a user input into your newly-posted program
> > in order to estimate tuner and/or balun losses?
> >
> ==
> Ed,
>
> Program LINELEN's primary purpose is to calculate the impedance
> presented to a tuner.
> (snip)
> The program cannot predict tuner losses. It has not been designed to
> so.
>
Reg,

Thanks for the clarification.

I might note that it's easy to see where I got the idea that LINELEN
attempts to calculate tuner loss. Your first post in this thread had
the subject line "New program. Dipole +Line+Balun+Tuner"; and
it included the line "Power lost in antenna and line is calculated.
Also overall loss." In order to predict *overall loss* of the chain
described, balun and/or tuner loss would have to be included.

From the balance of your remarks, I conclude that you (like me)
don't think that accurately predicting the losses of real-world
tuners is a very practical undertaking. (Sometimes empirical
measurements rule.)

I hope many find your program useful for what it IS designed to do,
and thank you again for making it available.

Ed

3432. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 15:45:19 UTC
From: richardharrison@webtv.net
Message-ID: <16029-447F0B8F-218@storefull-3254.bay.webtv.net>
Source record: 58574

Reg, G4FGQ wrote:
"Anything you toss into the sea water makes a good ground."

Certainly correct if "anything" is a low-impedance RF path.

If "skin effect" prevents penetration to a copper plate on the hull,
fine. RF has then made the transfer to the sea at a shallow depth.
That`s the goal.

Best regards, Richard Harrison, KB5WZI

3433. Re: Mobile rigging

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 17:01:18 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97D56610FEF11spectrumhogstarbandn@198.186.192.196>
Source record: 58575

>
>
> I never tried to determine if it was the plug itself, or the wiring
> that caused the power drop, but I found a website that allows you to
> calculate the voltage drop of wire given the length, wire size and
> current.
>
>

35 years experience tells me that biggest issue regarding voltage drop in most wiring harnesses is the connections, not the wire itself. Unsoldered metal to metal connections, especially crimp type, are especially problematic.

Ed K7AAT

3434. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 17:09:05 UTC
From: richardharrison@webtv.net
Message-ID: <16028-447F1F31-995@storefull-3254.bay.webtv.net>
Source record: 58476

Yuri, K3BU wrote:
"Learned it to be a no-no trying to feed phased arrays with individual amplifiers, at the same frequency."

I`m not sure separate amplifiers have anything to do with distortion because I`ve seen distortion at certain azimuths from arrays driven by a single amplifier.

Drive around a broadcast array with sharp nulls while listening. You will notice severe distortion at the edges of sharp nulls. I always attributed this to phase out of the carrier frequency at an azumuth where the sidebands aren`t completely nulled out, and this produces the overmodulation and distortion. It`s only a speculation to explain the cause of an observed effect.

Best regards, Richard Harrison, KB5WZI

3435. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 18:07:53 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e5nadq$5kk$1@avnika.corp.mot.com>
Source record: 58477

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:127tsratj3vl886@corp.supernews.com...
> Steve N. wrote:
> > . . .
> > Side bar:
> > For some situations, the resistive part of this new impedance can even
go
> > negative. ...
>
> Negative feedpoint resistances in phased arrays have of course been
> known for a very long time.

Roy,
I didn't mean to imply it wasn't known previously, only wanted to give a real life example (as a preemptive attempt at heading off a potential "but that's all theory" response -- perhaps a little gun-shy on this news group (:-)). I also have no direct knowledge of this type of the network design, but it has to be designed and the antenna with the neg real part is part of the system that gets hooked to the network.

> You can't "match to" a negative resistance, because matching
> requirements are determined by the load, not source, impedance,

OOPS ! I *know* what you mean, but it takes knowledte of both ends - We, me included, can eaily forget that we have an arbitrarily defined (50 ohm) system that we easily take for granted. ya gotta know you're in a 50 ohm (or whatever) system to "do" the match.

73, Steve, K9DCI

3436. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 18:09:39 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e5nah4$5kn$1@avnika.corp.mot.com>
Source record: 58478

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:4oadnezMd691terZnZ2dnUVZ8s2dnZ2d@bt.com...
>
>
> I'm gonna be like Brer Rabbit and say nuffin.
>

But you just did!

sorry, couldn't resist.
I wasn't gonna say anything, until I just thought of that:

73, Steve, K9DCI

3437. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 18:27:40 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e5nbit$5p4$1@avnika.corp.mot.com>
Source record: 58479

And so it goes...

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:lkQdg.27874$QP4.7530@fed1read12...
>
> "Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
> news:e57vbgehk1@avnika.corp.mot.com...
> Snip >
> The radiation will therefore mimic that noise
> > also. ...
>
> Correct

John,
Thanks.

> ...
> ...(command = FTSCPAC, if you know that outfit) ...

No. I have successfully blotted all that stuff out of my mind, but,
then, I was a short-timer from day one. Perhaps I do remember something
like CNCPACFLT (sync - pack - fleet)...

I was in the Phillipines, uh oh! it's comming back ... NAV COM STA PHIL

> I/we demonstrated with two links of chain, connected back-to back to make
a
> continuous current path, that we could generate noise by making and
breaking
> the connection where the links touched. It was invariably a convincing
demo
> for the students. The effect only extended out a few inches from the deck
> of our plywood model, but scale it up, and you are smack-dab in the real
> world.

Totally cool demo. I first became aware of it when I had litterally a
garage repair shop, after the Navy. I had a Motorola monitor receiver that
sat on one common frequency and was used to measure deviation on 2M radios
in the late 60's/70's. If I keyed a transmitter on another frequency and
happened to scrape a screwdriver on another condusting surface, I'd hear
noise in the monitor. I therefore dubbed it the "screwdriver effect".
Later, at Motorola, I had to track down some receiver desense in a car phone
and traced it to pickup of the Caddy trunk-closing motor wiring, somehow
bringing RF into what appeared to be the dash and possibly a lousy
oscillator for some unknown equipment, that, was re-radiated causing Rx
noise. I also had to look for some "motion induced desense" and found

bumber mounts and also motorcycle seat springs to be responsible. I had to develop a detection system and used one of the FM receivers with a weak, slightly off ferquency signal injected in parallel with a small loop to sniff the offending junctions while someone bounsed on the suspect body part ... At that time, that's when I ran across rthe paper describing the HF interference via the deck chains to the radars on NASA ships. We dubbed this effect "Environmental Desense". There is a 2M repearer in NE Illinois that has this quite often when there is wind.

73, Steve, K9DCI

3438. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 18:34:55 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e5nc0g$5rk$1@avnika.corp.mot.com>
Source record: 58480

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:F5aeg.27941$QP4.12044@fed1read12...
>
> "Bart Bailey" <me2@privacy.net> wrote in message
> news:4477db49.5273685@bart.spawar.mil...
> > In Message-ID:<lkQdg.27874$QP4.7530@fed1read12> posted on Fri, 26 May
> > 2006 21:12:01 -0700, Sal M. Onella wrote:
> >
> > > ...
> they used brass ship models,

Ahhh! the days before Roy and his "modeling software" when we used
"modeling hardware" (:-)

When ships were made of wood and men were made of steel. [[you could tell
by the 'rust' stains on their skivvies]] sorry, still a little old salt
left in the veins...

It's amazing what you can do when money is no object...

73, Steve, K9DCI

3439. Re: seperation in lie of a duplexer at 222 mhz band

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 19:02:03 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e5ndjc$61s$1@avnika.corp.mot.com>
Source record: 58481

Dave has some good info too, but here's some background.

Transmitters ALL have noise coming out that decreases as you move away from the carrier. We call this sideband noise. This noise can cover up your received signal if it is high enough (which is not difficult) on the receive frequency. A duplexer or cavity set can (if needed) have a notch at the _RX_ frequency to reduce this noise. Cavities like this are called "pass-reject" cavities because they have a band-pass characteristic for the transmitter frequency and a notch which can also be tuned to the receiver frequency to reduce this noise more than the simple cavity skirts can.

Transmitters can have spurs and if you have that, you have a similar problem because it is just a single frequency which could cover a received signal and you must reduce. However, chances of having a spur on your receiver frequency is rare (though synthesizers can cause quite a few near the carrier, so you want to stay away from a synthesized radio if possible, for a repeater, for that reason)

While we talk of "receiver overload, blocking, desense" receivers have one characteristic which is not obvious to most. Since ALL oscillators have this sideband noise mentioned above, the local oscillator IN the receiver also has some. When a strong carrier enters the receiver (your own transmitter), _it_ becomes another local oscillator in the mixer and can mix with the sideband noise of the intentional LO. This mixes some part of the sideband noise of the LO onto the desired frequency. This is one of the mechanisims for receiver desense and one reason to reduce the amount of TX power getting to the receiver. With synthesixed receivers, it CAN be the dominant cause for desense. This is because the VCOs needed for synthesizers typically can have quite high sideband noise. Since a typical radio is not designed for repeater operation, it's design will not try to optimize for sideband noise.

On 2M you can probably hear this effect with just about any two 2M ham rigs. Talk to someone on the local repeater, but not too close to the repeater (I'd say at least 5 miles away) and drive close to each other. At some point he repeater will get noisy and if you have a good ear, you can hear that this noise is different than the normal, weak signal noise. When the other station de-keys, the repeater will quiet with it's normal gusto.

73, Steve, K9DCI

3440. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 19:17:39 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e5negk$64j$1@avnika.corp.mot.com>
Source record: 58482

<glenn.b.dixon@gmail.com> wrote in message
news:1148486661.748365.219740@u72g2000cwu.googlegroups.com...
> ...> By the way, generating new frequencies is not necessarily a violation
> of superposition (though it usually is). Consider a system undergoing
> a constant Doppler shift.
>
> 73,
> Glenn AC7ZN
>

Glenn,
boy! I can't read all these posts, so I was trying to see where you were
going and asking by just skimming, primarily your posts.

The above caught my eye. Doppler is not "generating new frequencies" as a
non linearity does. A non-linear system will produce harmonics with one
exitation frequency and produce the common mixing / IM with multiple
exitation (superimposed) frequencies. I think trying to mix relativistic
effects in with the stationary world is an unnecessary complication of a
linearity discussion.
If I have time I'll try to follow the thread to see what you're really
after...but. If it takes mega watts to see some non linearity in an
antenna, who cares? and more importantly how will you know whree it is
occuring since things like the junction of two connectorc can produce enough
IM to mask other, smaller sources. If you tried an experiment looking
for IM / Mixing you might try to use a receiver becaue a receiver could be a
very sensitive detector...but you'd have to have a pretty good receiver.
Something like a kW LO and mixer to have a really good intercept.
I'm not sure of the point here... Do antennas cause IM?
Sounds like a deadend arena to me.

73, Steve, K9DCI

3441. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 19:55:39 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-8043F8.11564001062006@netnews.worldnet.att.net>
Source record: 58483

In article <7k3s725tjkumuqplvjslhb7vr0ei4o292g@4ax.com>,
Richard Clark <kb7qhc@comcast.net> wrote:

> If they all utilize the same seawater for propagation and the same
> vertical radiator, they all suffer equally - it stands to reason there
> is no difference given all the "sameness." It also stands to reason
> by your assertion that they differ, that they do not all use the same
> seawater or vertical.... Which is it? Let's skip that and cut to the
> heart of the matter. How MUCH different?
>
> Start with a conventional untuned vertical using a dynaplate and tell
> me, in dB, how much better any other scheme is. Let's confine this to
> a practical situation where the rig is under cover and inside the boat
> and that you need two leads, one from the tuner antenna connection,
> and another from the tuner ground connection.
>
> 73's
> Richard Clark, KB7QHC

This is exactly right. If they all use the same water for RF Ground,
and vertical, for the antenna, then the only difference is, "How much
coupling from the ground stud on the antenna tuner does each system give
to the water?" And that is the Thousdan Dollar question. DynaPlate,
Bonded RF Ground System, wires, radials, whatever, all, just make up one
side of the capacitor, with the water as the otherside and the distance
between is the dielectric. More effective coupling equals lower
impedance RF Ground. All this talk of Modelling is just so much FuFurrR,
for anyone who has installed MF/HF Marine Antenna Systems on these type,
wood or plastic vessels. Anyone with much experience in the field will
tell you, simply, get as much surface area as possible, bonded with
low impedance connections, (Copper Strap) and get it as close to the
water as possible. The Physics of building a bigger capacitor is:
Have as much surface area as possible, with the least space between the
plates. This isn't Rocket Science, it is just basic physics, and all the
crap about tuned counterpoises, and copper screens in the overhead, and
the like is just that..... crap...woun't work, never has, and never
will.
It doesn't take a NEC Modelling Software Package to figure this out, it
just takes some common sense and a bit of OJT Experience....

Bruce in alaska
--
add a <2> before @

3442. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 20:00:03 UTC
From: You <You@shadow.orgs>
Message-ID: <You-5F442D.12010601062006@netnews.worldnet.att.net>
Source record: 58484

In article <16029-447F0B8F-218@storefull-3254.bay.webtv.net>,
richardharrison@webtv.net (Richard Harrison) wrote:

> If "skin effect" prevents penetration to a copper plate on the hull,
> fine. RF has then made the transfer to the sea at a shallow depth.
> That`s the goal.

Bullshit, where do you guys come up with this stuff....Skin Effect is a
a Boundry Thing, and the hull of the vessel is the "Boundry of the Sea
Water" even if it is 10 feet below the sea surface.

3443. Re: I was going through about ten years of ham catalogs, and I noticed a disturbing trend.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-01 23:44:21 UTC
From: Morse or Re-Morse <see@double.you>
Message-ID: <pZKfg.176$o4.56@newsread2.news.pas.earthlink.net>
Source record: 58485
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

szekeres@pitt.edu (GregS) wrote in
news:e5moguhuo4@usenet01.srv.cis.pitt.edu:

> In article <e5kdbr$se2$1@avnika.corp.mot.com>, "Steve N."
> <stuevue.nouskuowuicuz@moutouroula.com> wrote:
>> $$
>>
>>Steve
>>
>>"Morse or Re-Morse" <see@double.you> wrote in message
>>news:eXMdg.13$eB3.11@newsread3.news.pas.earthlink.net...
>>> There's an increase in recent years of ham gear Retailers offering an
>>> expanding amount of citizen band radios and related products.
>>>
>>> So Retailers have seen the changes in the type of people that are
>>> making up and will be making up the US ham population, and have
>>> modified their inventories and marketing to stay in step with it.
>>>
>>> Gotta keep selling them radio's, Ten-Four?
>
> Well years back there were CB STORES everywhere, and places like Sears
> and Wards sold CB's, not anymore. Someone has to sell them.

Radio Shack.

You got questions, we got blank stares.

Morse

3444. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 02:19:00 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <447fa014$0$6142$39cecf19@news.twtelecom.net>
Source record: 58486

Richard Harrison wrote:

> Yuri, K3BU wrote:
> "Learned it to be a no-no trying to feed phased arrays with individual
> amplifiers, at the same frequency."
>
> I`m not sure separate amplifiers have anything to do with distortion
> because I`ve seen distortion at certain azimuths from arrays driven by
> a single amplifier.
>
> Drive around a broadcast array with sharp nulls while listening. You
> will notice severe distortion at the edges of sharp nulls. I always
> attributed this to phase out of the carrier frequency at an azumuth
> where the sidebands aren`t completely nulled out, and this produces the
> overmodulation and distortion. It`s only a speculation to explain the
> cause of an observed effect.
>
> Best regards, Richard Harrison, KB5WZI
>

I wonder if we can really define that as distortion. It's distortion to you at the time perhaps, since the whole signal as you'd like it to be delivered is not there while you drive through the null. However, the antenna system is just doing its job, and doing it well in the directions it was intended. The nulls are by nature not supposed to contain signals with smooth frequency response, since they aren't supposed to contain any signal at all if perfect, correct?

tom
K0TAR

3445. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 03:13:24 UTC
From: gaschafer@comcast.net
Message-ID: <1149218004.001316.294030@h76g2000cwa.googlegroups.com>
Source record: 58487

You wrote:
> In article <16029-447F0B8F-218@storefull-3254.bay.webtv.net>,
> richardharrison@webtv.net (Richard Harrison) wrote:
>
> > If "skin effect" prevents penetration to a copper plate on the hull,
> > fine. RF has then made the transfer to the sea at a shallow depth.
> > That`s the goal.
>
> Bullshit, where do you guys come up with this stuff....Skin Effect is a
> a Boundry Thing, and the hull of the vessel is the "Boundry of the Sea
> Water" even if it is 10 feet below the sea surface.

Finally someone gets it! This is what Roy said way back in his first
report of his modeling, that the ground plate if fastened to the hull
will be on the surface of the water even if it happens to be several
feet below. The other side of the ground plate is air. In other words
the hull is displacing the water. Unless of course the boat has sunk.

For the guys that are referencing the N6?? Article about very short
elevated radials over sea water; please note that he is saying those
short elevated radials are tuned with loading coils.
Elevated radials will not work unless they are 1/4 wave resonant or
tuned with a loading coil.

73
Gary K4FMX

3446. Re: Mobile rigging

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 03:25:46 UTC
From: Buck <not@this.time>
Message-ID: <qqbv72di8kd350ifcbou1lfjepuirvpmke@4ax.com>
Source record: 58488

On 01 Jun 2006 17:01:18 GMT, Ed <Huckleberry_REMOVE_@bigvalley.net>
wrote:

>
>
>>
>>
>> I never tried to determine if it was the plug itself, or the wiring
>> that caused the power drop, but I found a website that allows you to
>> calculate the voltage drop of wire given the length, wire size and
>> current.
>>
>>
>
> 35 years experience tells me that biggest issue regarding voltage drop
>in most wiring harnesses is the connections, not the wire itself.
>Unsoldered metal to metal connections, especially crimp type, are
>especially problematic.
>
>
> Ed K7AAT

That may well be. However, I still use the wire with the least
voltage drop I can reasonably afford. (#8 was available, flexible, and
relatively inexpensive for the length I needed, #00 was too stiff and
large to manipulate in my car. :)

--
73 for now
Buck
N4PGW

3447. Re: Mobile rigging

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 03:41:55 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1149219715.068406.159470@c74g2000cwc.googlegroups.com>
Source record: 58489

The fuses actually have a good bit of voltage drop across them.

-Dan
N3OX

Ed wrote:
> >
> >
> > I never tried to determine if it was the plug itself, or the wiring
> > that caused the power drop, but I found a website that allows you to
> > calculate the voltage drop of wire given the length, wire size and
> > current.
> >
> >
>
> 35 years experience tells me that biggest issue regarding voltage drop
> in most wiring harnesses is the connections, not the wire itself.
> Unsoldered metal to metal connections, especially crimp type, are
> especially problematic.
>
>
> Ed K7AAT

3448. Re: What happens if you pipe the output of one radio in to 2 amps?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 04:08:31 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <dROfg.134$xb6.62@fe08.lga>
Source record: 58490

"Richard Harrison" <richardharrison@webtv.net> wrote in message
news:16028-447F1F31-995@storefull-3254.bay.webtv.net...
> Yuri, K3BU wrote:
> "Learned it to be a no-no trying to feed phased arrays with individual
> amplifiers, at the same frequency."
>
> I`m not sure separate amplifiers have anything to do with distortion
> because I`ve seen distortion at certain azimuths from arrays driven by
> a single amplifier.
>
> Drive around a broadcast array with sharp nulls while listening. You
> will notice severe distortion at the edges of sharp nulls. I always
> attributed this to phase out of the carrier frequency at an azumuth
> where the sidebands aren`t completely nulled out, and this produces the
> overmodulation and distortion. It`s only a speculation to explain the
> cause of an observed effect.
>
> Best regards, Richard Harrison, KB5WZI
>

The effect, distortion, seemed to be noticeable in any or all directions and over DX path. The only thing we could figure out, was that it had to do with separate amps feeding separate ants. Switching to either one, signals were clean. Feeding two antennas from one exciter through hybrid was no problem. In my case it was 4 square and Inv Vee about 3/8 wave away.
I have heard the same effect on one YU station, and he was getting reports of raspy signal and when I told him to turn the other amp off, he was clean. The distortion was quite significant, it produced complaints from about one in five stations worked. Closest thing to describe it, would like signals distorted by Aurora.

73 Yuri, K3BU

3449. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 04:44:49 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <6nPfg.28256$QP4.810@fed1read12>
Source record: 58491

"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
news:kmieVPE+IpfEFA1P@ifwtech.co.uk...

> Those were the phased arrays for the earlier VHF radar, and consisted of
> two or four two-element yagis clustered around the nose (of a
> two-engined aircraft, obviously). This gave a fairly good
> forward-looking capability. Both sides did much the same, and given the
> relatively long wavelength, it's hard to think how better to do it.
>
> The huge benefit of the magnetron was that it operated at much shorter
> wavelengths, which frees up the antenna design and provides much better
> spatial resolution - witness the downward-looking "H2S" radar which was
> the magnetron's first major deployment.

The VHF radars were still around into the late 1970's, maybe beyond. The US Navy had them on carriers for air search. I think the nomenclature was AN/SPS-29 and/or AN/SPS-37. The one I recall was in the 218 - 220 MHz and it was hell on TV channel 13! The antenna was referred to as a bedspring array; the rectangular framework for the dipole radiating elements resembled a giant bedspring.

3450. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 04:56:54 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <qyPfg.28259$QP4.21821@fed1read12>
Source record: 58492

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e5nbit$5p4$1@avnika.corp.mot.com...
> And so it goes...

< snip >

> I was in the Phillipines, uh oh! it's comming back ... NAV COM STA PHIL

Likewise. I was a CTMSN/CTM3 there. April 1963 - August 1964. Worked in
the receiver building. I have run into a lot of guys who were there -- all
later than this graybeard. I don't recognize your name, even with the extra
u's taken out.

John
KD6VKW

3451. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 06:00:02 UTC
From: Stan Shankman <stantheman@visi.com>
Message-ID: <127vktc7lrtoi7b@corp.supernews.com>
Source record: 58493
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

No, it's the Eye-Off-Sphere :-)

"Jay" <Jpegged@b4qrt.net> wrote in message
news:jOrcg.651$Sf2.175@newsread1.news.pas.earthlink.net...
> I put the ball to a metal grinder and I could easily see an outer F layer
> and then the E layer. I couldn't find a D layer, but it was dark outside
> and there's not supposed to be a D layer at night. Neat how antenna's can
> be manufactured to do that.
>
> Just passed my tech and General on Sunday so I'll be on the bands as
> soon as I find out my callsign and get an ionsphere for my antenna. I
> destroyed the old one on the grinder and I hear you need a good ionsphere
> to shoot good skip and hear far away stations. Reception has been really
> shitty lately without the ionsphere. I looked through the last 4 issues of
> QST and I couldn't find anyone selling ionsphere's. Where can I get one,
> or do I have to buy a whole new antenna?
>
> Thanks, Jay
>

3452. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 06:35:24 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <mTGOYmDsw9fEFA3G@ifwtech.co.uk>
Source record: 58494

Sal M. Onella wrote:
>
>"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
>news:kmieVPE+IpfEFA1P@ifwtech.co.uk...
>
>
>> Those were the phased arrays for the earlier VHF radar, and consisted of
>> two or four two-element yagis clustered around the nose (of a
>> two-engined aircraft, obviously). This gave a fairly good
>> forward-looking capability. Both sides did much the same, and given the
>> relatively long wavelength, it's hard to think how better to do it.
>>
>> The huge benefit of the magnetron was that it operated at much shorter
>> wavelengths, which frees up the antenna design and provides much better
>> spatial resolution - witness the downward-looking "H2S" radar which was
>> the magnetron's first major deployment.
>
>The VHF radars were still around into the late 1970's, maybe beyond. The US
>Navy had them on carriers for air search. I think the nomenclature was
>AN/SPS-29 and/or AN/SPS-37. The one I recall was in the 218 - 220 MHz and
>it was hell on TV channel 13! The antenna was referred to as a bedspring
>array; the rectangular framework for the dipole radiating elements resembled
>a giant bedspring.
>

Sure, but none of those would fly very well. The discussion was really
about airborne radar, where there are tough limits on antenna size.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3453. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 12:04:40 UTC
From: Mort <mldenison@suscom.net>
Message-ID: <1149249880.391265.137820@i40g2000cwc.googlegroups.com>
Source record: 58495

Back in the early 70's I got a pair of magetron magnets that came out of old airborne radio set - can't remember the nomenclature - that the USAF converted into a weather radio. They were quite large and strong, and 'U' shaped. Someone swiped them in a move. Anybody know where I might find a set? Google and eBay haven't turned up anything.

3454. test

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 13:40:56 UTC
From: antenna@antenna.com
Message-ID: <44803fec$1_1@news.iprimus.com.au>
Source record: 58496

```
test
```

3455. test

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 13:41:48 UTC
From: antenna@antenna.com
Message-ID: <44804021_1@news.iprimus.com.au>
Source record: 58497

test

3456. ICOM IC-V200T Programming Manual Wanted!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 14:03:35 UTC
From: pavvan@passagen.se
Message-ID: <1149257015.622396.60330@y43g2000cwc.googlegroups.com>
Source record: 58498

If you have it so please send it to my E-mail,i have been searching for it for a pretty long time so i would be very glad to get it.

Thanks:pavvan!

3457. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 14:18:35 UTC
From: Tron <Tron@nowhere.org>
Message-ID: <1280i5rnl0snk69@corp.supernews.com>
Source record: 58499

Richard Clark wrote:
>
> Hi All,
>
> Just a bit of RF history obtained from "Forty Years of Radio
> Research," by George C. Southworth while I was doing some research for
> a correspondent:
>
> "As early as 1921, Dr. A.W. Hull of the General Electric Company
> described the characteristics of a device which he called a
> magnetron. It consisted of an axial filament surrounded by a
> cylindrical plate between which a constant radial electric field
> could be impressed. Superimposed on this arrangement and at right
> angles to the electric field was an axial magnetic field.

This sounds like a Faraday disk motor where
the copper or brass disk was replaced by an
electron stream in a vacuum:
http://w1tp.com/s_motr.jpg

>
> ... "Later the inductive load was reduced to a tiny Lecher frame.
> A magnetron with this configuration was placed inside a small
> waveguide by Dr. Harold S. Howe of the University of Michigan to
> obtain a top frequency of nearly 50,000 mc. (1938).
>
> "A few years earlier, 1934, Dr. Cleeton and Professor Williams
> also of the University of Michigan had ... discovered a pronounced
> absorption band for ammonia at about 27,300 mc. This ultimately
> led to a new time-keeping device of high accuracy.
>
> ... "Finally the plate was made from a single block of copper with
> appropriate segments milled inside its hollow periphery, each
> representing an individual oscillator. This important step was
> taken by physicists at the University of Birmingham in the late
> thirties. They also applied plate power in short pulses and at
> much higher levels than had been used previously. This was not
> only more appropriate for good magnetron operation but it
> provided an almost ideal signal for radar use. ... Details of this
> device were brought to America first by Sir Robert Watson-Watt and
> Drs. Cockcroft and Bowen in September, 1940."
>
> 73's
> Richard Clark, KB7QHC

3458. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 15:10:41 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1149260433_149@sp6iad.superfeed.net>
Source record: 58500

gaschafer@comcast.net wrote:
> You wrote:
>> In article <16029-447F0B8F-218@storefull-3254.bay.webtv.net>,
>> richardharrison@webtv.net (Richard Harrison) wrote:
>>
>>> If "skin effect" prevents penetration to a copper plate on the hull,
>>> fine. RF has then made the transfer to the sea at a shallow depth.
>>> That`s the goal.
>> Bullshit, where do you guys come up with this stuff....Skin Effect is a
>> a Boundry Thing, and the hull of the vessel is the "Boundry of the Sea
>> Water" even if it is 10 feet below the sea surface.
>
> Finally someone gets it! This is what Roy said way back in his first
> report of his modeling, that the ground plate if fastened to the hull
> will be on the surface of the water even if it happens to be several
> feet below. The other side of the ground plate is air. In other words
> the hull is displacing the water. Unless of course the boat has sunk.

It is interesting to speculate about the
proportion of displacement currents passing
through the air to the inside of the hull and then
through the hull to the grounding plate, vs. the
proportion passing from the surface along the
water-hull interface to the Dynaplate.

As Roy pointed out, one reason seawater "works"
despite its low conductivity relative to copper is
that a high percentage of the "ground" return
current is concentrated very close to the antenna
where path conductance is high. If the water path
from the surface to the Dynaplate is vertical
(four feet) does that mean return currents must
pass through four additional feet of seawater and
thus will encounter greater losses than if the
Dynaplate were at the surface?

Or will the vertical water path "collect" the same
or even greater return currents than a horizontal
water path? I've heard of radials sloping up and
away from the antenna at 45 degrees, but 90
degrees? (Assumes tuner ground terminal directly
adjacent to Dynaplate on other side of hull) Ought
to be easy to model.

Interesting, no?

>
> For the guys that are referencing the N6?? Article about very short
> elevated radials over sea water; please note that he is saying those
> short elevated radials are tuned with loading coils.
>

Yes. That is what he reported on his modeling.

Elevated radials will not work unless they are 1/4
wave resonant or
> tuned with a loading coil.

This is not at all obvious to me except at a
semantic level. And lest anyone misunderstand,
Gary is not suggesting that N6LF made that statement.

Is an automobile body (on land) conceptually
analogous to non-resonant, elevated radials? Does
it work? Would it work less well over seawater
(let it levitate or make very quick QSOs)?

Would a random length whip on HF work with a tuner
and a single, non-resonant wire about 25 feet
long, in lieu of the auto body? Would it work less
well over seawater?

If you're with me this far, the next question is
"how much better or worse?". And then on to the
other tradeoffs: radiation patterns, safety,
simplicity, RF coupling, etc.

Alternatively, we can explore why it won't work.

>
> 73
> Gary K4FMX
>

73,
Chuck
NT3G

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3459. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 15:14:01 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1149261241.354995.121520@y43g2000cwc.googlegroups.com>
Source record: 58501

Thanks, Steve,

Good post. You do need to read a little more: by mentioning Doppler shifts, I was illustrating that a linear system can generate new frequencies without violating the law of superposition. No relativistic effects needed here: a two-tone train whistle will not distort in the superposition sense under Doppler shift, but it can generate new (or different) frequencies. My point was that generation of new frequencies is not necessarily a valid test for nonlinearity.

My position on antennas is the same as yours. Earlier posts were confusing as the term 'linearity' was being applied to antennas in two ways. One in the electrical superposition sense (by me) and the other in current distribution along the antenna element. Electrically, antennas are very linear (I believe) even when their current distribution along the element length is not.

I stopped posting when I realized we were discussing two different things.

73,
Glenn AC7ZN

Steve N. wrote:
> <glenn.b.dixon@gmail.com> wrote in message
> news:1148486661.748365.219740@u72g2000cwu.googlegroups.com...
> > ...> By the way, generating new frequencies is not necessarily a violation
> > of superposition (though it usually is). Consider a system undergoing
> > a constant Doppler shift.
> >
> > 73,
> > Glenn AC7ZN
> >
>
> Glenn,
> boy! I can't read all these posts, so I was trying to see where you were
> going and asking by just skimming, primarily your posts.
>
> The above caught my eye. Doppler is not "generating new frequencies" as a
> non linearity does. A non-linear system will produce harmonics with one
> exitation frequency and produce the common mixing / IM with multiple
> exitation (superimposed) frequencies. I think trying to mix relativistic
> effects in with the stationary world is an unnecessary complication of a
> linearity discussion.
> If I have time I'll try to follow the thread to see what you're really
> after...but. If it takes mega watts to see some non linearity in an

> antenna, who cares? and more importantly how will you know whree it is
> occuring since things like the junction of two connectorc can produce enough
> IM to mask other, smaller sources. If you tried an experiment looking
> for IM / Mixing you might try to use a receiver becaue a receiver could be a
> very sensitive detector...but you'd have to have a pretty good receiver.
> Something like a kW LO and mixer to have a really good intercept.
> I'm not sure of the point here... Do antennas cause IM?
> Sounds like a deadend arena to me.
>
> 73, Steve, K9DCI

3460. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 15:21:20 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1149261071_191@sp6iad.superfeed.net>
Source record: 58502

chuck wrote:

>
> As Roy pointed out, one reason seawater "works" despite its low
> conductivity relative to copper is that a high percentage of the
> "ground" return current is concentrated very close to the antenna where
> path conductance is high. If the water path from the surface to the
> Dynaplate is vertical (four feet) does that mean return currents must
> travel along four additional feet of seawater (at the hull-water interface)
and thus will encounter greater losses than if
the Dynaplate were at the surface?

OOPS!

"pass through" should be changed to "travel along"
and the parenthetical expression (at the
hull-water interface) should be added for
clarification. Text above has been so edited.

Sorry about that.

Chuck

----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3461. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 17:04:03 UTC
From: richardharrison@webtv.net
Message-ID: <23775-44806F83-11@storefull-3257.bay.webtv.net>
Source record: 58503

Chuck wrote:
"If thee water parh from the surface to the Dynaplate is vertical (four feet) does that mean return currents must pass through four additional feet of seawater and thus encounter greater losses than if the Dynaplate were at the surface?"

Well, the Dynaplate is at the surface of the water in contact with the hull. That surface makes a turn to the horizontal at the sea surface.

The Dynaplate could also be connected by copper strap(s) on the extertior of the insulated hull so as to contact the sea at a shallower depth depending on the list (tilt) and trim of the boat. Capacitive coupling through an insulated hull is usually comparatively easy at RF.

Best regards, Richard Harrison, KB5WZI

3462. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 17:42:35 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e5ptacdhh1@avnika.corp.mot.com>
Source record: 58504
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

"Stan Shankman" <stantheman@visi.com> wrote in message
news:127vktc7lrtoi7b@corp.supernews.com...
> No, it's the Eye-Off-Sphere :-)
>

Hey! I like that!

73, Steve, k9DCi

3463. Re: ICOM IC-V200T Programming Manual Wanted!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 19:04:52 UTC
From: "g. beat"
Message-ID: <RJWdnUqNrtFLFh3ZnZ2dnUVZ_tGdnZ2d@comcast.com>
Source record: 58505

<pavvan@passagen.se> wrote in message
news:1149257015.622396.60330@y43g2000cwc.googlegroups.com...
>
> If you have this manual -- please send it to my E-mail, I have been
> searching for
> it for a long time. I would be very happy to get a copy of it.
>
> Thanks:pavvan!
>

Radio appears to be circa 1980s Icom design

The IC-V200T Owner's manual (VHF-FM Transceiver)
http://www.icom.co.jp/manual/external/transceivers/IC-V200T.pdf

Of course, this Land Mobile Radio is designed to be pre-programmed
by an Icom Service Center.

Here is a web site concerning modifications and programming of the IC-V200T
by F5JTZ
http://f5jtz.club.fr/pjacquet/default.htm

IW3GPE Italian web page - some of the same materials as F5JTZ
http://www.negrello.com/icv200t.htm

This radio is programmed through the 10 pin front microphone connector.
A TTL-to-RS232 interface will need to be built. F5JTZ has a design on his
web page (using 2 opto-isolators).
A number of these designs exist on the Internet.

The Software CLONE17 (French software) only functions with the V200T
versions that have EPROMS of the "Pro origin", namely V8, V9 and V10 ....
but not with the SuperH16.

Icom (Europe) GmbH
Himmelgeister Str. 100,
D-40225 Dusseldorf, Germany
Phone : 0211 346047
Fax : 0211 333639
e-mail: info@icomeurope.com
web page: http://www.icomeurope.com/

3464. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 21:05:53 UTC
From: Stephanie Weil <stephanienyc@gmail.com>
Message-ID: <1149282353.352353.90180@j55g2000cwa.googlegroups.com>
Source record: 58506
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

Jay wrote:
> I put the ball to a metal grinder and I could easily see an outer F layer
> and then the E layer.

Hehhhhhh :)

That little ball is a magnet. It's what actually attracts and catches
those snippets of radio wave that are hovering all around you.

See? That's why coat-hangers never work as antennas.

;)

And supposedly aluminium can be used to amplify certain wavelengths.
Which is why tin-foil wads on the ionosphere also improve reception.

--
Steph (Bridge and Tunnel for Sale) Weil

3465. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-02 23:49:02 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1149292142.572189.180830@u72g2000cwu.googlegroups.com>
Source record: 58507
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

SW,

Coat Hanger make great Antenna for Walking About.

Leave the Coat Hanger in the Coat.

Put the Coat-on.

Put a Radio in the Breast-Pocket of the Coat.

Attach a short little Wire from the Radio to the CoatHanger.

You Got Radio ! ~ RHF
[But it can be a Pain-in-the-Back :-]
.
.
. .

Stephanie Weil wrote:
> Jay wrote:
> > I put the ball to a metal grinder and I could easily see an outer F layer
> > and then the E layer.
>
> Hehhhhhh :)
>
> That little ball is a magnet. It's what actually attracts and catches
> those snippets of radio wave that are hovering all around you.
>
> See? That's why coat-hangers never work as antennas.
>
> ;)
>
> And supposedly aluminium can be used to amplify certain wavelengths.
> Which is why tin-foil wads on the ionosphere also improve reception.
>
> --
> Steph (Bridge and Tunnel for Sale) Weil

3466. Re: Is the little ball on top of my antenna the ionsphere?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-03 00:21:40 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Vq-dneodo-mGSx3ZnZ2dnUVZ_qOdnZ2d@crocker.com>
Source record: 58508
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave

its actually the anti-ion-sphere if you want to get technical.

3467. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-03 05:24:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <128278grmhthsab@corp.supernews.com>
Source record: 58509

bob wrote:
> . . .
> One thing i am curious about is that if you suspend a radiator or
> conductor well below skin depth in air whats the radiation efficiency
> like of that conductor? To me on a yacht it looks like a conductor
> suspended in a U channel suspended in air with the top open and
> exposed. Maybe it will operate like a waveguide with some cut off
> frequency, this is a wild guess.Maybe someone who can model conductors
> below ground can model this. Most yachts have at least 3ft of freeboard
> above water to play with.
>
> But who knows there seems to conflicting advice on several points.
> Maybe Roy can clarify all these issues with his models.

There's no good way to model this situation with the tools I have. Conceptually, though, you can get a fair idea by imagining the sea to be made of metal. The boat makes a depression in the surface, and you can connect to the metal at the bottom of the depression just as you can anywhere else on its surface.

Imagine that the depression is perfectly round and symmetrical, with a grounded vertical extending up from its center. The current flowing into the "ground" connection at the bottom of the depression will flow along the conductor's surface, up the sides of the "dish" to the flat water surface. The total current flowing from the center of the dish upward to the flat surface will equal the current flowing up the vertical wire near its base. The fields from the two will nearly cancel, so there'll be little radiation from the vertical in the region below the flat surface of the water. The vertical above that point should radiate normally. This simplification will of course be modified by the reality of a non-symmetrical hull, but it helps in getting a general idea of what will happen.

Another way to look at the situation is to view the depression as the outer conductor of a shorted coaxial cable, with the "ground wire" extending down to its center as its center conductor, and the shorted end the bottom of the depression. This shows you'd get some inductive reactance in your connection to the surface of the water. A rough calculation would probably get you in the ballpark of the actual value. This doesn't represent loss, however.

The main thing, though, is that connection to the water requires a conductor either in contact with or capacitively coupled to the water's surface or only a very short distance below it (assuming salt water), whether the surface is below the boat's hull in a depression or on the

flat surface of the ocean.

Roy Lewallen, W7EL

3468. 6m 3el quad question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-03 14:02:19 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <LDggg.35496$4H.30435@dukeread03>
Source record: 58510

I just finished construction but my holes in the boom for
the spreaders were not perfectly square so my reflector
is rotated about 5-10 degrees out of line with the other
elements. Does this matter that much? I could cut the
boom, rotate the reflector into alignment and re-attach
if it was that important. Is it?
--
73's de Ken KG0WX - Kadiddlehopper #11808,
Flying Pigs #-1055, Grid EM17io, FT-857D, AL-84,
Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B

3469. Re: I was going through about ten years of ham catalogs, and I noticed a disturbing trend.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-03 14:23:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <FXggg.130895$F_3.107482@newssvr29.news.prodigy.net>
Source record: 58511
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Morse or Re-Morse" <see@double.you> wrote
> Radio Shack. You got questions, we got blank stares.

My 17 year old RS Optimus speakers gave up the ghost. I went into
a Radio Shack and was told that not only does RS not sell speakers
like that anymore, but speakers with one tweeter plus one mid-range
plus one woofer were not even manufactured anymore and that it
takes half a dozen modular speakers to set up a system nowadays.

I went over to Fry's Electronics and found exactly what I was
looking for from Cambridge Soundworks. The woofer only goes
down to 40 Hz but for my karaoke system, that's good enough.
--
73, Cecil http://www.qsl.net/w5dxp

3470. Re: 6m 3el quad question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-03 14:31:24 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <f3hgg.3700$n91.3226@fe09.lga>
Source record: 58512

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:LDggg.35496$4H.30435@dukeread03...
>I just finished construction but my holes in the boom for
> the spreaders were not perfectly square so my reflector
> is rotated about 5-10 degrees out of line with the other
> elements. Does this matter that much? I could cut the
> boom, rotate the reflector into alignment and re-attach
> if it was that important. Is it?
> --
> 73's de Ken KG0WX - Kadiddlehopper #11808,
> Flying Pigs #-1055, Grid EM17io, FT-857D, AL-84,
> Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B
>
>

Electrically - very little, if anything. Loop (closed) doesn't know what
polarization it is.
Esthetically - it will look (slightly) crooked, need to point in direction
that will hide it from the major people traffic area :-)

73 Yuri, K3BU

3471. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-03 14:34:38 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <26hgg.130896$F_3.20730@newssvr29.news.prodigy.net>
Source record: 58513

<glenn.b.dixon@gmail.com> wrote
> Electrically,
> antennas are very linear (I believe) even when their current
> distribution along the element length is not.
>
> I stopped posting when I realized we were discussing two different
> things.

In a linear system, there only needs to be a straight line function between the input and output. The actual signals on the input wouldn't be very useful if only straight line functions were allowed on that input. The current distribution along an antenna element length only ever approximates a straight line. The only requirement for that current to obey the rules for a linear system is that it be a linear function of the source current and it is at every point.
--
73, Cecil http://www.qsl.net/w5dxp

3472. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-03 20:19:32 UTC
From: richardharrison@webtv.net
Message-ID: <25601-4481EED4-37@storefull-3258.bay.webtv.net>
Source record: 58514

Chuck wrote:
"If the water path from the surface of the Dynaplate is vertical (four feet) does that mean return currents must travel along four additional feet of seawater (at the hull-water interface)---?

Maybe, but there is a lot of area in that path. The hull-water interface includes the entire submerged surface of the hull. It has been assumed in this thread that the sail-boat hull is fiberglass, an insulator. The impedance of fiberglass is vastly different from that of seawater.

The great mismatch between fiberglass and seawater means a radio wave traveling along one of the surfaces won`t be readily absorbed into the other.

Dynaplate is a name given copperfoil on a roll. Dynaplate is also a name given a copper plate which has been etched to increase surface area thereby increasing its contact area with water.

The surface of seawater contacting a boat hull is continuous with the horizontal surface of the sea.

Vertical polarization is effective over seawater. Horizontal polarization is ineffective. The sea short-circuits the voltage wave.

A horizontal wire can produce vertically polarized radiation. The Beverage antenna works over poor soil. On page 720 of Kraus` 3rd edition of "Antennas" is the "Flush Disc" antenna which produces vertically polarized radiation over a highly conductive surface. It`s a radiator in a pit and should be useful in a vessel.

Best regards, Richard Harrison, KB5WZI

3473. FREE 40 meter QRP transmitters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-03 22:44:56 UTC
From: hamradio.dxer@yahoo.com
Message-ID: <1149374696.031539.63090@f6g2000cwb.googlegroups.com>
Source record: 58515

Yes, but there is a catch. You have to buy one of their portable antennae.

I use one. Been up for several years now. Works great. Worth every penny.

http://hamradiofun.com/summer-special.htm

73

3474. Re: Special Tower Bolts

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 00:38:16 UTC
From: richardharrison@webtv.net
Message-ID: <25156-44822B78-658@storefull-3252.bay.webtv.net>
Source record: 58516

g. beat wrote:
"Avoid check surplus bolts of unknown origin."

All bolts may have questionable origin. In addition to the bolt`s shear strength, it may loose its head at too low a torque.

Use a torque wrench to measure the point at which several bolts lose their heads.

Best regards, Richard Harrison, KB5WZI

3475. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 01:10:48 UTC
From: richardharrison@webtv.net
Message-ID: <25156-44823318-660@storefull-3252.bay.webtv.net>
Source record: 58517

Ian, GM3SEK wrote:
"Sure, but none of those (bedapring antenna arrays) would fly very well."

It`s been a long time now but I believe investigation showed the army`s new radar (earthborne) got good echos from the approaching Japanese arircraft on December 7, 1941, but the top brass rejected the reports in disbelief of either the new equipment or the audacity of the Japanese Navy. That attack changed naval warfare forever. Lot more respect for both aircraft and radar ever since.

Best regards, Richard Harrison, KB5WZI

3476. source for plug and play phased array "turner" for 6m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 02:02:17 UTC
From: "kb9rqz@hotmail.com" <kb9rqz@hotmail.com>
Message-ID: <1149386537.918838.48460@g10g2000cwb.googlegroups.com>
Source record: 58518

any sources for sucha sytem that don't require a lot of retooling

3477. Re: source for plug and play phased array "turner" for 6m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 03:00:08 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1149390008.218744.99060@i40g2000cwc.googlegroups.com>
Source record: 58519

What are you building? Just experimenting?

I doubt there's a turn-key solution especially for 6m. There are some companies that sell four-square boxes for the low bands, but they're pretty pricey, and you're not going to get one for 6m.

I think the only plug and play phased array turner for 6m you're going to find is an antenna rotator to turn your yagi :-)

Transmitting array steering is a bit more difficult than receiving array steering. You can make RX array elements lossy enough to avoid trouble with mutual coupling and you can get closer to doing arbitrary phase combinations of elements, because you can do it with active components. With a transmitting array in amateur use, you need to use passive tuned networks, transmission lines, etc and it's harder to get "weird" (non-90 or 180 degree phasing).

You might be able to put together an RX phaser... I don't know if the MFJ 1025/1026 phase boxes go up to 6m but they might work for you for RX.

Let us know what you're making. I'm curious!

Dan
N3OX

3478. Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 03:05:02 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <l0sgg.73153$iB2.27815@bignews4.bellsouth.net>
Source record: 58520

I want needinfo on the type of cores do I need to use with RG58 and RG 214 to make a choke type BALUN at 2m. I am building a vertical dipole out of 1 inch al tubing. coax will pass through the bottom half othe dipole with the sheild fastend at the middle of the bottom piece and cneter conductor fastened to the top piece of al. Initial test indicate I have RF on the shield and need some decoupling. Winding the coax into a coil certainly helped but this has prevented me from placing the antenna in a fiberglass tube the way I had planned.

3479. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 03:47:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <CJsgg.131091$F_3.95183@newssvr29.news.prodigy.net>
Source record: 58521

"Jimmie D" <jimmiedee@bellsouth.net> wrote:
>I want needinfo on the type of cores do I need to use with RG58 and RG 214
>to make a choke type BALUN at 2m. I am building a vertical dipole out of 1
>inch al tubing. coax will pass through the bottom half othe dipole with the
>sheild fastend at the middle of the bottom piece and cneter conductor
>fastened to the top piece of al. Initial test indicate I have RF on the
>shield and need some decoupling.

For single band operation, a simple decoupling stub or sleeve will
probably work. This is discussed in the ARRL Antenna Book.
--
73, Cecil http://www.qsl.net/w5dxp

3480. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 04:37:01 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <CqmdnQvEpK4x_B_ZnZ2dnUVZ_qednZ2d@adelphia.com>
Source record: 58522

Jimmie D wrote:
> I want needinfo on the type of cores do I need to use with RG58 and RG 214
> to make a choke type BALUN at 2m. I am building a vertical dipole out of 1
> inch al tubing. coax will pass through the bottom half othe dipole with the
> sheild fastend at the middle of the bottom piece and cneter conductor
> fastened to the top piece of al. Initial test indicate I have RF on the
> shield and need some decoupling. Winding the coax into a coil certainly
> helped but this has prevented me from placing the antenna in a fiberglass
> tube the way I had planned.

For the RG58, each Steward HFB143064-300 (sorry for the ridiculous
link length):
http://www.steward.com/web_part_no.asp?line=EMC%20/%20EMI%20Board%20Level%20and%20Cable%20Core%20Products&family=Ferrite%20Cores%20for%20Cables%20-%20%20Wiring%20Harnesses%20-%20Connectors&product=High%20Frequency%20Solid%20Ferrite%20Cores%20for%20Round%20Cables&progroup=1.%20Round%20and%20Cylindrical%20Cores&part=HFB143064-300
provides about 180 ohms choke impedance.

Each slightly longer and in a lower frequency ferrite, 28B0591-200:
http://www.steward.com/web_part_no.asp?line=EMC%20/%20EMI%20Board%20Level%20and%20Cable%20Core%20Products&family=Ferrite%20Cores%20for%20Cables%20-%20%20Wiring%20Harnesses%20-%20Connectors&product=Broadband%20Solid%20Ferrite%20Cores%20for%20Round%20Cables%20and%20Wiring%20Harnesses&progroup=1.%20Round%20and%20Cylindrical%20Cores&part=28B0591-200
provides about 500 ohms choke impedance.

For the RG214, each Steward HFB259128-100:
http://www.steward.com/web_part_no.asp?line=EMC%20/%20EMI%20Board%20Level%20and%20Cable%20Core%20Products&family=Ferrite%20Cores%20for%20Cables%20-%20%20Wiring%20Harnesses%20-%20Connectors&product=High%20Frequency%20Solid%20Ferrite%20Cores%20for%20Round%20Cables&progroup=1.%20Round%20and%20Cylindrical%20Cores&part=HFB259128-100
provides about 120 ohms of choke impedance.

Each 28B1020-100:
http://www.steward.com/web_part_no.asp?line=EMC%20/%20EMI%20Board%20Level%20and%20Cable%20Core%20Products&family=Ferrite%20Cores%20for%20Cables%20-%20%20Wiring%20Harnesses%20-%20Connectors&product=Broadband%20Solid%20Ferrite%20Cores%20for%20Round%20Cables%20and%20Wiring%20Harnesses&progroup=1.%20Round%20and%20Cylindrical%20Cores&part=28B1020-100
provides about 300 ohms of choke impedance.

You will have to string these on the coax before terminating it.

3481. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 08:12:09 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <WXEC56CZXpgEFApY@ifwtech.co.uk>
Source record: 58523

Allison wrote:
>On Fri, 2 Jun 2006 07:35:24 +0100, Ian White GM3SEK
><gm3sek@ifwtech.co.uk> wrote:
>
>>Sal M. Onella wrote:
>>>
>>>"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
>>>news:kmieVPE+IpfEFA1P@ifwtech.co.uk...
>>>
>>>
>>>> Those were the phased arrays for the earlier VHF radar, and consisted of
>>>> two or four two-element yagis clustered around the nose (of a
>>>> two-engined aircraft, obviously). This gave a fairly good
>>>> forward-looking capability. Both sides did much the same, and given the
>>>> relatively long wavelength, it's hard to think how better to do it.
>>>>
>>>> The huge benefit of the magnetron was that it operated at much shorter
>>>> wavelengths, which frees up the antenna design and provides much better
>>>> spatial resolution - witness the downward-looking "H2S" radar which was
>>>> the magnetron's first major deployment.
>>>
>>>The VHF radars were still around into the late 1970's, maybe beyond. The US
>>>Navy had them on carriers for air search. I think the nomenclature was
>>>AN/SPS-29 and/or AN/SPS-37. The one I recall was in the 218 - 220 MHz and
>>>it was hell on TV channel 13! The antenna was referred to as a bedspring
>>>array; the rectangular framework for the dipole radiating elements resembled
>>>a giant bedspring.
>>>
>>
>>Sure, but none of those would fly very well. The discussion was really
>>about airborne radar, where there are tough limits on antenna size.
>
>P38s, Spitfires and other aircraft setup for night attack or bombing
>did have a smaller high VHF radars using smaller 8 element bedspring
>arrays. They proved very effective.
>

As far as I know, these VHF arrays were only installed on the nose of twin-engined or four-engined aircraft. On a single-engined aircraft like the Spitfire, the antenna would have been behind the propeller. Did you mean the Mosquito?

There were also some rearward-looking VHF/UHF radars using a simple 2-element antenna, to warn of aircraft approaching from anywhere within a large rearward beamwidth.

A common feature of all these early airborne VHF/UHF systems was that
the antennas were fixed, so the view was always relative to the
direction of the aircraft.

>VHF and UHF radar has a better ability to peek over the horizon and at
>the time when reciever for uhf were still new tech offered the best
>range/power ratios.

Hence VHF/UHF was favored for shipborne use, where the horizon range is
limited by the relatively low antenna height.

>The magnetron moved effort to the milimeter bands
>at high power outputs where small high gain antennas were practical
>thus negating the need for high gain recievers.
>
Yup... and the small size eventually opened the way to steerable
antennas too.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3482. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 08:23:31 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <I2iVRXEDipgEFAJQ@ifwtech.co.uk>
Source record: 58524

John Popelish wrote:
>For the RG58, each Steward HFB143064-300 (sorry for the ridiculous link
>length):
>http://www.steward.com/web_part_no.asp?line=EMC%20/%20EMI%20Board%20Leve
>l%20and%20Cable%20Core%20Products&family=Ferrite%20Cores%20for%20Cables%
>20-%20%20Wiring%20Harnesses%20-%20Connectors&product=High%20Frequency%20
>Solid%20Ferrite%20Cores%20for%20Round%20Cables&progroup=1.%20Round%20and
>%20Cylindrical%20Cores&part=HFB143064-300
>provides about 180 ohms choke impedance.

TinyURL.com is a great resource for condensing very long web links that might become broken in transit. You only need to copy-and-paste the long URL into their web page, and "TinyURL" does exactly what it says.

The above example comes right down to:
http://tinyurl.com/n6bt9

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3483. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 09:08:17 UTC
From: Will <echocomms@hotmail.com>
Message-ID: <1149412097.324163.112210@u72g2000cwu.googlegroups.com>
Source record: 58525

How do you figure the lower "coaxial sleave" dimentions. My project is converting/cutting down a old model PD83 (Phelps Dodge brass skirt coaxial, aprox 50mHz) to 2 meters.

And I did use the ferrite bead on the J pole to cancel out the RF on the coax, but do not know which core specs.

3484. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 11:01:26 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <npednWfy9KaCIx_ZRVny3w@bt.com>
Source record: 58426

The RAF Sunderland Flying Boat had a high wing and a deep hull with 4 engines. The Radar was ASV Mk 3 or Mk 5, a sea-going version of H2S. Sunderlands were employed on submarine hunting over the North Atlantic and Indian Oceans. 3000 MHz, 50 kW peak pulse power, radar range = 100 miles.

A radar scanner could not be installed under the nose. It had to be kept out of the water. Instead there were two syncronised scanners, one hanging under each wing tip. They rotated together, one scanner covering the port side 180 degrees and the other the starboard side.

The magnetron output was switched in the waveguide system between port and starboard, changing over at 5 degrees away from dead ahead to avoid spurious switching effects.

The parabolic scanners, rotating about once every two seconds, had a habit of getting out of sychronism when the aircraft made a tight turn. Something to do with gyroscopic, centrifugal and gravitational forces. It took 7 or 8 seconds to regain syncronism by which time the radar operator had got the target and other ships in the vicinity all mixed up with each other on the radar PPI display.

Aa the radar operator over the China Sea, I was once severely cursed (reprimanded) over the intercom by the skipper for getting ourselves lost immediately following a tight turn. But the war was now over and it was only a practice exercise.

Reg.

3485. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 13:24:04 UTC
From: "J. D. B." <duffyb01@nospamfuse.net>
Message-ID: <9e847$4482def6$d06640f9$28274@FUSE.NET>
Source record: 58427
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

The FCC is not requiring specific testing for PSK31, RTTY,
Hellschreiber, Olivia, etc. and all those modes seem to be used pretty
extensively on all the bands. Not to mention, programs like MixW and
especially MultiPSK do an excellent job of sending a receiving CW. I see
all the modes continuing to flourish in the future even if a specific
test for one mode (CW) goes away.

Brian Hill wrote:
> "Silent Key" <cw.h@m.bands> wrote in message
> news:NOw6g.6936$An2.3601@newsread2.news.pas.earthlink.net...
>> What's the purpose of ham radio, To have fun talking about rigs and
>> weather, or to be able to communicate?
>>
>> To be able to communicate when no one else can communicate and to advance
>> radio knowledge & theory?
>>
>> What does part 97 say about this? Why does the ARRL ignore it?
>>
>> When CW is lost, new hams will be just like CB'ers and SWL's, or some
>> other lower life form of radio hobbiest. You name it.
>>
>> SC
>
> Nobody said you had to quit. Keep pounding.
>
> BH
>
>

3486. Re: APRSpoint: memorial day special

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 14:18:28 UTC
From: "J. D. B." <duffyb01@nospamfuse.net>
Message-ID: <b56d$4482ebbf$d06640f9$8963@FUSE.NET>
Source record: 58428

The only issue with APRSPoint is that support and upgrades are sorely lacking. The Yahoo group he runs is censored so that any suggestions or criticisms of his product are not posted. He needs to really upgrade this program. It is one of the most expensive and also has the least amount of features. Nice start, but the author needs to really spend some time getting this program up to where all the other APRS programs are in functionality.

hxc98@yahoo.com wrote:
> APRSPoint is the latest APRS implementation and it is being used in
> vehicle tracking, search and rescue, emergency communication and many
> other areas. It allows you to track persons or objects via rf or
> internet. It is constantly being updated with new features and
> improvements. We are offerring a special discount for this memorial day
> weekend. Please visit http://www.aprspoint.com for details and lots of
> helpful information about APRS. Thanks.
>

3487. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 17:16:58 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1149441418.531073.162560@j55g2000cwa.googlegroups.com>
Source record: 58429
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

J. D. B. wrote:
> The FCC is not requiring specific testing for PSK31, RTTY,
> Hellschreiber, Olivia, etc. and all those modes seem to be used pretty
> extensively on all the bands. Not to mention, programs like MixW and
> especially MultiPSK do an excellent job of sending a receiving CW. I see
> all the modes continuing to flourish in the future even if a specific
> test for one mode (CW) goes away.
the concern is obvious for decades the CW crowd has relied on the
requirement to force all ham to at try it. mode welfare. they are afaid
without that stick the mode will die . it show a lack ocnvednce in the
mode

3488. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 17:26:41 UTC
From: LLOYD THE LOSER DAVIES <pizzadeliveryboygotfired@LOSER.COM>
Message-ID: <44830a75$0$26866$88260bb3@free.teranews.com>
Source record: 58430
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Dan/W4NTI" <w4nti@mindNOSPAMATALLspring.com> wrote in message
news:%Ardg.7747$y4.1609@newsread2.news.pas.earthlink.net...
>
> "Lloyd" <lloyd@no.spammmmm> wrote in message
> news:DRL017833.2458F8789@tarrnews.net...
>> On 21 May 2006 13:12:33 -0700, an old friend drooled:
>>> Dan/W4NTI wrote:
>>> > Or just a common drunk or dope addict that gets worse as
>>> > the night goes on?
>>> more libel
>>>
>>> how drool Dan
>>
>> Dan doesn't drool. Right, Dan?
>
> No I don't. Why is this particular idiotic thread in every major ham
> radio group? It finally dropped out of DX, and now I find it in
> "equipment". How about you children make your own little group, all climb
> into it, and make each other happy.
>
> Dan/W4NTI
>
>
Even if I could learn the CW, I'm too stupid to pass the written test.

I have this congenital problem, you see. Life is NOT good for me.
I suffer from Microcephalic Dwarfism and I've been afflicted with it since I
can remember.
Definition: These syndromes associate growth retardation with
microcephaly and various facial anomalies.

My forehead is smaller than that of a normal person and my cranial cavity is
little larger than that of a Florida orange. My sloping forehead has only
one advantage in that it allows me to insert it into my rectal cavity with
little or no pain. While less than comfortable, and while it impedes clear
speech I am able to keep my ears warm in the coldest of climates, but those
are the good points.

I have suffered from extreme retardation all my life and have recently been
considering placing my head in the oven. I am betting that the accumulated
yeast in my mouth will aid me in blowing my head off at 350 degrees, thus
ending it all.

You guys have no idea of what torture it is to live with my afflictions. You will miss me when I am gone.

--
Posted via a free Usenet account from http://www.teranews.com

3489. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 18:14:33 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1149444873.848437.89160@f6g2000cwb.googlegroups.com>
Source record: 58431
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
LLOYD THE LOSER DAVIES wrote:
> "Dan/W4NTI" <w4nti@mindNOSPAMATALLspring.com> wrote in message
> news:%Ardg.7747$y4.1609@newsread2.news.pas.earthlink.net...
> >
> > "Lloyd" <lloyd@no.spammmmm> wrote in message
> > news:DRL017833.2458F8789@tarrnews.net...
> >> On 21 May 2006 13:12:33 -0700, an old friend drooled:
> >>> Dan/W4NTI wrote:
> >>> > Or just a common drunk or dope addict that gets worse as
> >>> > the night goes on?
> >>> more libel
> >>>
> >>> how drool Dan
> >>
> >> Dan doesn't drool. Right, Dan?
> >
> > No I don't. Why is this particular idiotic thread in every major ham
> > radio group? It finally dropped out of DX, and now I find it in
> > "equipment". How about you children make your own little group, all climb
> > into it, and make each other happy.
> >
> > Dan/W4NTI
> >
> >
> Even if I could learn the CW, I'm too stupid to pass the written test.
get help
```

3490. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 18:29:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <XDFgg.38139$4L1.24199@newssvr11.news.prodigy.com>
Source record: 58432

"Will" <echocomms@hotmail.com> wrote:
>
> How do you figure the lower "coaxial sleave" dimentions.

It's usually 1/4WL long. The theory is to turn that 1/4WL of
feedline into a transmission line where the currents on the
outside of the original shield are balanced by the inside
shield on the sleeve which balances the antenna currents.
It functions over a certain single bandwidth.
--
73, Cecil http://www.qsl.net/w5dxp

3491. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 18:33:22 UTC
From: richardharrison@webtv.net
Message-ID: <1374-44832772-396@storefull-3255.bay.webtv.net>
Source record: 58433

Reg, G4FGQ weote:
"As the radar operator over the China Sea, I was once severely cursed (reoremanded) over the intercom by the skipper for getting ourselves lost immediately following a tight turn."

On my ship, most of the crew was sleepless most of the time while we were underway. We had two 4-hour watches each day at our sea detail. Plus, we had to turn-to on our regular work details during dayrime hours if we weren`t on watch. But, the killer was the dawn and dusk general quarters positions we had to man every day while traveling in a war zone. You were really lucky if your assigned watch time sometimes cincided with work-detail time.

The result of all this sleep loss was some cat-napping on the bridge in addition to elsewhere aboard. Our top speed was 14 knots which made us faster than a liberty ship, so at times we got convoy escort duty. We had antiaircraft guns, 50 ca., 20 mm, and 40 mm. My gq position was on the latter.

Whenever the brdge awakened after a doze in convoy, someone would often shout down through the voice tube to the radar operator:
"Geez! how close is that ship ahead? Whereupon, the operator would push or pull himself away from a PPI tube covered with false sea return, poke his head out a porthole, then scream his best estimate back up the voice tube. That`s how he avoided being scolded.

Best regards, Richard Harrison, KB5WZI

3492. Re: source for plug and play phased array "turner" for 6m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 19:28:37 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1149449317.917962.18960@c74g2000cwc.googlegroups.com>
Source record: 58434

n3ox.dan@gmail.com wrote:
> What are you building? Just experimenting?
not sure
>
> I doubt there's a turn-key solution especially for 6m. There are some
> companies that sell four-square boxes for the low bands, but they're
> pretty pricey, and you're not going to get one for 6m.
any specail reason?
>
> I think the only plug and play phased array turner for 6m you're going
> to find is an antenna rotator to turn your yagi :-)

the problem I have had with that is the weather around always includes
an ice strom which feezes the yagi or take down the wholle antenna

> You might be able to put together an RX phaser... I don't know if the
> MFJ 1025/1026 phase boxes go up to 6m but they might work for you for
> RX.
>
> Let us know what you're making. I'm curious!

I hopeing to find something I can steer in some fashion that I can
harden aginst the local winter weather

My verticals do fine but looking for better
>
> Dan
> N3OX

3493. Re: Origins of the Magnetron

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 20:02:05 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1149451325.743678.37600@j55g2000cwa.googlegroups.com>
Source record: 58435

Richard Harrison wrote:
> Ian, GM3SEK wrote:
> "Sure, but none of those (bedapring antenna arrays) would fly very
> well."
>
> It`s been a long time now but I believe investigation showed the army`s
> new radar (earthborne) got good echos from the approaching Japanese
> arircraft on December 7, 1941, but the top brass rejected the reports in
> disbelief of either the new equipment or the audacity of the Japanese
> Navy. That attack changed naval warfare forever. Lot more respect for
> both aircraft and radar ever since.
>
> Best regards, Richard Harrison, KB5WZI

as I understand the Matter the radar sighting never made past a LT to
the top brass that one of the problem that day was the still pecetime
armed forces were quick to discount anything with the number of "false
sighting" etc

3494. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 21:32:01 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <g0k682deidbjcvnu8n9vdln7nd7csfii6m@4ax.com>
Source record: 58436

On Sun, 04 Jun 2006 18:29:11 GMT, "Cecil Moore" <mycall@hotmail.com>
wrote:

...

What's with the HTML format Cecil?

Owen
--

3495. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 22:23:52 UTC
From: Radio Buff <my.mail@no.spam>
Message-ID: <Y3Jgg.9077$921.5844@newsread4.news.pas.earthlink.net>
Source record: 58437
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"J. D. B." <duffyb01@nospamfuse.net> wrote in
news:9e847$4482def6$d06640f9$28274@FUSE.NET:

> The FCC is not requiring specific testing for PSK31, RTTY,
> Hellschreiber, Olivia, etc. and all those modes seem to be used pretty
> extensively on all the bands. Not to mention, programs like MixW and
> especially MultiPSK do an excellent job of sending a receiving CW. I see
> all the modes continuing to flourish in the future even if a specific
> test for one mode (CW) goes away.

Any retard can use a computer. Look around.

3496. Re: I was going through about ten years of ham catalogs, and I noticed a disturbing trend.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 22:24:05 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <94Jgg.9081$921.5558@newsread4.news.pas.earthlink.net>
Source record: 58438
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Cecil Moore" <mycall@hotmail.com> wrote in
news:FXggg.130895$F_3.107482@newssvr29.news.prodigy.net:

> "Morse or Re-Morse" <see@double.you> wrote
>> Radio Shack. You got questions, we got blank stares.
>
> My 17 year old RS Optimus speakers gave up the ghost. I went into
> a Radio Shack and was told that not only does RS not sell speakers
> like that anymore, but speakers with one tweeter plus one mid-range
> plus one woofer were not even manufactured anymore and that it
> takes half a dozen modular speakers to set up a system nowadays.
>
> I went over to Fry's Electronics and found exactly what I was
> looking for from Cambridge Soundworks. The woofer only goes
> down to 40 Hz but for my karaoke system, that's good enough.

A microphone, a six-pack, a karaoke system, & you're a star. :-)

sc

3497. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 22:38:09 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1149460689.301329.175570@g10g2000cwb.googlegroups.com>
Source record: 58439

Cecil Moore wrote:

> In a linear system, there only needs to be a straight line function
> between the input and output. The actual signals on the input wouldn't
> be very useful if only straight line functions were allowed on that
> input. The current distribution along an antenna element length only
> ever approximates a straight line. The only requirement for that
> current to obey the rules for a linear system is that it be a
> linear function of the source current and it is at every point.

I mostly agree with your definition of linearity. Roy's point that an offset in the straight line violates superposition is an example of a straight line violating superposition. Also consider the throwing of two dice. If the dice act independently they can be considered a linear system with two outputs (the numbers that show on the dice) which obeys the law of superposition. If, however, the dice collide when thrown, they now influence each other, the system becomes nonlinear, and the law of superposition is violated. It's pretty hard for me to attach a straight line function to dice.

Mixers are especially interesting beasts when viewed in the light of superposition. They are obviously highly nonlinear, yet we regularly speak of mixer linearity. Here is the trick: when the local oscillator is included in the input signal set, the mixer is highly nonlinear as the LO influences every signal that comes in drastically, in the sense of generating new frequencies.

But it is convenient to think of the local oscillator as just an internal parameter of the mixer, and to not include it in the input signal set. Under this assumption all the RF input signals substantially obey the law of superposition (that is, they do not influence each other) and discussing mixer linearity has enough meaning that we can characterize it through standard tests. Note also that under this assumption the output frequencies do not match the input frequencies in general, yet the law of superposition holds over a wide dynamic range.

Cecil's point that doubling antenna current will double the current at each point in the antenna (I'm rephrasing) has a dual in mixers: doubling any signal will double all the mixer's ouputs due to that signal alone, and not any other outputs.

73,
Glenn Dixon AC7ZN

3498. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 22:46:53 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1149461213.656978.129230@f6g2000cwb.googlegroups.com>
Source record: 58440
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Radio Buff wrote:
> "J. D. B." <duffyb01@nospamfuse.net> wrote in
> news:9e847$4482def6$d06640f9$28274@FUSE.NET:

>
> Any retard can use a computer. Look around.
obviously you manage to
```

3499. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 22:48:04 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <v8GdnecP0u61_h7ZnZ2dnUVZ_rqdnZ2d@comcast.com>
Source record: 58441
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"an old friend" <kb9rqz@hotmail.com> wrote in message
news:1149441418.531073.162560@j55g2000cwa.googlegroups.com...
>
> J. D. B. wrote:
>> The FCC is not requiring specific testing for PSK31, RTTY,
>> Hellschreiber, Olivia, etc. and all those modes seem to be used pretty
>> extensively on all the bands. Not to mention, programs like MixW and
>> especially MultiPSK do an excellent job of sending a receiving CW. I see
>> all the modes continuing to flourish in the future even if a specific
>> test for one mode (CW) goes away.
> the concern is obvious for decades the CW crowd has relied on the
> requirement to force all ham to at try it. mode welfare. they are afaid
> without that stick the mode will die . it show a lack ocnvednce in the
> mode
>
Just for grins, what speed code certificate do *YOU* hold??

-n6ojn

3500. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-04 22:57:57 UTC
From: an old friend <kb9rqz@yahoo.com>
Message-ID: <1149461877.311758.318210@u72g2000cwu.googlegroups.com>
Source record: 58442
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Noon-Air wrote:
> "an old friend" <kb9rqz@hotmail.com> wrote in message
> news:1149441418.531073.162560@j55g2000cwa.googlegroups.com...
> >

> > the concern is obvious for decades the CW crowd has relied on the
> > requirement to force all ham to at try it. mode welfare. they are afaid
> > without that stick the mode will die . it show a lack ocnvednce in the
> > mode
> >
> Just for grins, what speed code certificate do *YOU* hold??
why me the ham to whom you repsonded?

none at all
why do you ask?

but it is clear from LONG term expousure to the cw Forever crowd many
of them lack much confidence that the mode can survive without the
stick of code testing to make hams try it out

futhermore if CW die it will be becuase of the atitdues of it's
advocates

>
> -n6ojn

3501. FA: 8 Books: ELECTRONICS, HAM RADIO, TV, SATELLITE, FM, INSTRUMENTATION, etc.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 01:18:57 UTC
From: Pat <pat@slkjpsopas.com>
Message-ID: <040620062118578305%pat@slkjpsopas.com>
Source record: 58443
Cross-posted to: rec.radio.amateur.equipment,alt.ham-radio.marketplace,rec.radio.amateur.antenna

http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&item=4646965552

3502. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 02:30:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <8HMgg.46032$Lm5.40693@newssvr12.news.prodigy.com>
Source record: 58444

"Owen Duffy" <owen@no.where> wrote:
> What's with the HTML format Cecil?

I've switched over from Netscape to Outlook Express and have
no idea what I am doing. I can't seem to get Outlook Express
to compose anything in Courier fixed font.
--
73, Cecil http://www.qsl.net/w5dxp

3503. Re: I was going through about ten years of ham catalogs, and I noticed a disturbing trend.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 02:33:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ZJMgg.46033$Lm5.611@newssvr12.news.prodigy.com>
Source record: 58445
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Slow Code" <my.mail@no.spam> wrote:
> A microphone, a six-pack, a karaoke system, & you're a star. :-)

Yep, see: http://www.qsl.net/w5dxp/w5dxp.jpg
--
73, Cecil http://www.qsl.net/w5dxp

3504. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 02:36:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <AMMgg.46034$Lm5.17842@newssvr12.news.prodigy.com>
Source record: 58446

<glenn.b.dixon@gmail.com> wrote:
> Cecil's point that doubling antenna current will double the current at
> each point in the antenna (I'm rephrasing) has a dual in mixers:
> doubling any signal will double all the mixer's ouputs due to that
> signal alone, and not any other outputs.

Yep, as long as system linearity is maintained.
--
73, Cecil http://www.qsl.net/w5dxp

3505. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 03:26:56 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <uIVgg.4745$ED2.3205@bignews2.bellsouth.net>
Source record: 58452

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:CJsgg.131091$F_3.95183@newssvr29.news.prodigy.net...
> "Jimmie D" <jimmiedee@bellsouth.net> wrote:
>>I want needinfo on the type of cores do I need to use with RG58 and RG 214
>>to make a choke type BALUN at 2m. I am building a vertical dipole out of 1
>>inch al tubing. coax will pass through the bottom half othe dipole with
>>the sheild fastend at the middle of the bottom piece and cneter conductor
>>fastened to the top piece of al. Initial test indicate I have RF on the
>>shield and need some decoupling.
>
> For single band operation, a simple decoupling stub or sleeve will
> probably work. This is discussed in the ARRL Antenna Book.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

Would be difficult to incorporate into my design

3506. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 03:38:51 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <vIVgg.4746$ED2.2933@bignews2.bellsouth.net>
Source record: 58453

"Jimmie D" <jimmiedee@bellsouth.net> wrote in message
news:l0sgg.73153$iB2.27815@bignews4.bellsouth.net...
>I want needinfo on the type of cores do I need to use with RG58 and RG 214
>to make a choke type BALUN at 2m. I am building a vertical dipole out of 1
>inch al tubing. coax will pass through the bottom half othe dipole with the
>sheild fastend at the middle of the bottom piece and cneter conductor
>fastened to the top piece of al. Initial test indicate I have RF on the
>shield and need some decoupling. Winding the coax into a coil certainly
>helped but this has prevented me from placing the antenna in a fiberglass
>tube the way I had planned.
>
Thanks all, found what I was looking for at Wireman.

3507. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 04:06:57 UTC
From: Zoran Brlecic <...WA7AA...@get.lost>
Message-ID: <MtOdnUgnFaN-MB7ZnZ2dnUVZ_tSdnZ2d@comcast.com>
Source record: 58447
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

LLOYD THE LOSER DAVIES wrote:

> Even if I could learn the CW, I'm too stupid to pass the written test.
>
> I have this congenital problem, you see. Life is NOT good for me.
> I suffer from Microcephalic Dwarfism and I've been afflicted with it since I
> can remember.
> Definition: These syndromes associate growth retardation with
> microcephaly and various facial anomalies.
>
> My forehead is smaller than that of a normal person and my cranial cavity is
> little larger than that of a Florida orange. My sloping forehead has only
> one advantage in that it allows me to insert it into my rectal cavity with
> little or no pain. While less than comfortable, and while it impedes clear
> speech I am able to keep my ears warm in the coldest of climates, but those
> are the good points.
>
>
> I have suffered from extreme retardation all my life and have recently been
> considering placing my head in the oven. I am betting that the accumulated
> yeast in my mouth will aid me in blowing my head off at 350 degrees, thus
> ending it all.

Mr. President?

Hang in there, soon the Congress will pass the constitutional amendment
preventing fags from having a piece of paper and all of this country's
problems will be solved forever.

3508. Re: source for plug and play phased array "turner" for 6m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 05:12:10 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1149484330.936470.319720@y43g2000cwc.googlegroups.com>
Source record: 58448

Hmm...

You could build a 6 meter array of verticals, a four square or a
rectangle array or something. It may be a little touchy to adjust for
proper phasing, but it could be done if you've got your heart set on
phased verticals. You're not going to find a commercial phasing box
for 6m though. The only commercial transmit phasing unit I know of is
this:

http://www.dxengineering.com/Parts.asp?ID=893&PLID=174&SecID=85&DeptID=22&PartNo=DXE-TFS-1
P

And it's for 160, 80, 40...

If ice survival is your only concern, maybe you should just add heaters
to your yagi :-)

Good luck...

Dan
N3OX

3509. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 09:29:33 UTC
From: "M." <notvalid@email.add>
Message-ID: <EPSgg.2$pP.18994@sooner.brightok.net>
Source record: 58449
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Radio Buff" <my.mail@no.spam> wrote in message
news:Y3Jgg.9077$921.5844@newsread4.news.pas.earthlink.net...
> "J. D. B." <duffyb01@nospamfuse.net> wrote in
> news:9e847$4482def6$d06640f9$28274@FUSE.NET:
>
>> The FCC is not requiring specific testing for PSK31, RTTY,
>> Hellschreiber, Olivia, etc. and all those modes seem to be used pretty
>> extensively on all the bands. Not to mention, programs like MixW and
>> especially MultiPSK do an excellent job of sending a receiving CW. I see
>> all the modes continuing to flourish in the future even if a specific
>> test for one mode (CW) goes away.
>
>
>
> Any retard can use a computer. Look around.

Obviously!

3510. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 09:36:25 UTC
From: Will <echocomms@hotmail.com>
Message-ID: <1149500185.456097.149290@h76g2000cwa.googlegroups.com>
Source record: 58450

:Cecil,

I will start a little long as this is a peimo piece of 2" dia brass.
According to swr-freq by R. J. Edwards, the 2" dia sleave is about 50
ohms
for the 1/4 wave. 146 mhz, 51.1 ohms, jXin 0.0 .

My thaught is with the 1"mast inside of the sleave (insulated and
centered only connected at the top) what does the added capacitance do
to the sleave lenght?

And RFS does not have the old cutting charts for the Phelps Dodge PD83,
I tried that.

> "Will" wrote:
> >
> > How do you figure the lower "coaxial sleave" dimentions.
>Cecil Moore wrote
> It's usually 1/4WL long. The theory is to turn that 1/4WL of
> feedline into a transmission line where the currents on the
> outside of the original shield are balanced by the inside
> shield on the sleeve which balances the antenna currents.
> It functions over a certain single bandwidth.

3511. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 11:22:02 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1149506521.971557.171840@y43g2000cwc.googlegroups.com>
Source record: 58451
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Radio Buff wrote:
> "J. D. B." <duffyb01@nospamfuse.net> wrote in
> news:9e847$4482def6$d06640f9$28274@FUSE.NET:
>
> > The FCC is not requiring specific testing for PSK31, RTTY,
> > Hellschreiber, Olivia, etc. and all those modes seem to be used pretty
> > extensively on all the bands. Not to mention, programs like MixW and
> > especially MultiPSK do an excellent job of sending a receiving CW. I see
> > all the modes continuing to flourish in the future even if a specific
> > test for one mode (CW) goes away.
>
>
>
> Any retard can use a computer. Look around.

As we all know the licensing requirement does not eliminate idiots on
the bands. Far from it unfortunately.
```

3512. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 12:51:15 UTC
From: "John, N9JG" <john@gotwals.XremoveY.com>
Message-ID: <T7mdnYmdt4xetRnZnZ2dnUVZ_v2dnZ2d@insightbb.com>
Source record: 58454

Try Tools | Options | Compose | News: Font Settings

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:8HMgg.46032$Lm5.40693@newssvr12.news.prodigy.com...
> "Owen Duffy" <owen@no.where> wrote:
>> What's with the HTML format Cecil?
>
> I've switched over from Netscape to Outlook Express and have
> no idea what I am doing. I can't seem to get Outlook Express
> to compose anything in Courier fixed font.
> --
> 73, Cecil http://www.qsl.net/w5dxp
>

3513. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 13:46:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <uAWgg.46181$Lm5.10743@newssvr12.news.prodigy.com>
Source record: 58455

"Will" <echocomms@hotmail.com> wrote:
> My thaught is with the 1"mast inside of the sleave (insulated and
> centered only connected at the top) what does the added capacitance do
> to the sleave lenght?

I'm sorry, I don't know what the velocity factor would be
in that configuration. If you sampled the common mode
current and tuned the frequency for a minimum, it might
give you an idea of the velocity factor.
--
73, Cecil http://www.qsl.net/w5dxp

3514. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 13:55:34 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qJWgg.46183$Lm5.44647@newssvr12.news.prodigy.com>
Source record: 58456

"John, N9JG" <john@gotwals.XremoveY.com> wrote:
> Try Tools | Options | Compose | News: Font Settings

Of course, I have set the font to Courier but right now, even
though I have "Plain Text" selected, the composing font is
Times New Roman. If I select "Rich Text", then it will
compose in Courier but that is HTML. I once forgot to switch
to plain text before sending and it apparently posted HTML.
--
73, Cecil http://www.qsl.net/w5dxp

3515. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 14:40:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <%nXgg.46192$Lm5.6933@newssvr12.news.prodigy.com>
Source record: 58457

I've gotten a few emails asking how a 1/4WL wire stub can be
used as a balun on a single band like 2m. Just connect the
wire to the element driven by the coax center conductor and
connect the other end to the braid 1/4WL down the coax. In
fixed font:

```
|
|
| Dipole
|
|
+====================================coax braid

+------------------------------------coax center conductor
|
| ==================+==============coax braid
| spacing |
+---------------------+
| 1/4WL stub
|
```

The current at the feedpoint sees a very high impedance looking
back down the *outside* braid of the feedline because it is looking
into a shorted 1/4WL stub. Often, a piece of similar coax is used
for the 1/4WL stub.
--
73, Cecil http://www.qsl.net/w5dxp

3516. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 16:58:50 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e61nsh$s06$1@f04n12.cac.psu.edu>
Source record: 58458

Roy Lewallen wrote:
> bob wrote:
>> . . .
>> One thing i am curious about is that if you suspend a radiator or
>> conductor well below skin depth in air whats the radiation efficiency
>> like of that conductor? To me on a yacht it looks like a conductor
>> suspended in a U channel suspended in air with the top open and
>> exposed. Maybe it will operate like a waveguide with some cut off
>> frequency, this is a wild guess.Maybe someone who can model conductors
>> below ground can model this. Most yachts have at least 3ft of
>> freeboard above water to play with.
>>
>> But who knows there seems to conflicting advice on several points.
>> Maybe Roy can clarify all these issues with his models.
>
> There's no good way to model this situation with the tools I have.
> Conceptually, though, you can get a fair idea by imagining the sea to be
> made of metal. The boat makes a depression in the surface, and you can
> connect to the metal at the bottom of the depression just as you can
> anywhere else on its surface.
>
> Imagine that the depression is perfectly round and symmetrical, with a
> grounded vertical extending up from its center. The current flowing into
> the "ground" connection at the bottom of the depression will flow along
> the conductor's surface, up the sides of the "dish" to the flat water
> surface. The total current flowing from the center of the dish upward to
> the flat surface will equal the current flowing up the vertical wire
> near its base. The fields from the two will nearly cancel, so there'll
> be little radiation from the vertical in the region below the flat
> surface of the water. The vertical above that point should radiate
> normally. This simplification will of course be modified by the reality
> of a non-symmetrical hull, but it helps in getting a general idea of
> what will happen.
>
> Another way to look at the situation is to view the depression as the
> outer conductor of a shorted coaxial cable, with the "ground wire"
> extending down to its center as its center conductor, and the shorted
> end the bottom of the depression. This shows you'd get some inductive
> reactance in your connection to the surface of the water. A rough
> calculation would probably get you in the ballpark of the actual value.
> This doesn't represent loss, however.
>
> The main thing, though, is that connection to the water requires a
> conductor either in contact with or capacitively coupled to the water's

> surface or only a very short distance below it (assuming salt water),
> whether the surface is below the boat's hull in a depression or on the
> flat surface of the ocean.

Back around the beginning of this thread a thought occurred to me, and I'm surprised that no one else mentioned it.

Unless we are planning on putting out ship on the great Salt lake, of one of the few other salt water inland lakes or seas, we're going to be putting the thing in the ocean.

Immediately, one sees that if a ground is at the surface of the water, at many points it will be 4 or more feet under the water. Dem boats rock! There are moments that it will be quite a distance under water, depending on the sea state.

Depending on the load, the water line is going to be different, and will be changing constantly as fuel and food is used.

Certainly any capacitive coupling through the hull makes for a variable capacitor? Does this have an effect?

Will we eventually come to the conclusion that we can't put radios on ships?? ;^)

- 73 de Mike KB3EIA -

3517. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 16:59:15 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1149526755.142414.109210@f6g2000cwb.googlegroups.com>
Source record: 58459
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

John S. wrote:
> Radio Buff wrote:
> > "J. D. B." <duffyb01@nospamfuse.net> wrote in
> > news:9e847$4482def6$d06640f9$28274@FUSE.NET:
> >

> >
> > Any retard can use a computer. Look around.
>
> As we all know the licensing requirement does not eliminate idiots on
> the bands. Far from it unfortunately.

in the case of this requirement it justmakes the whole look bad

testing 1800's tech in the 21st century

3518. H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 18:10:01 UTC
From: justin.gill@tesco.net
Message-ID: <1149531001.503023.220830@g10g2000cwb.googlegroups.com>
Source record: 58460

Is anyone aware of any sources of information/theory on H Field
antennas, such as the Chelton Loop for HF?

3519. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 18:33:52 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1288u8idqtf9b0a@corp.supernews.com>
Source record: 58461

Michael Coslo wrote:
>
> Back around the beginning of this thread a thought occurred to me,
> and I'm surprised that no one else mentioned it.
>
> Unless we are planning on putting out ship on the great Salt lake,
> of one of the few other salt water inland lakes or seas, we're going to
> be putting the thing in the ocean.
>
> Immediately, one sees that if a ground is at the surface of the
> water, at many points it will be 4 or more feet under the water. Dem
> boats rock! There are moments that it will be quite a distance under
> water, depending on the sea state.

Use a bare wire, and the top few inches will do the job regardless of how much additional wire goes below the water. As I've said before, there's no harm in having additional wire below the water; it simply doesn't do anything useful.

The problem is that as the boat rocks, the length of the wire to the ocean surface will vary in length, which will change the antenna's impedance. So a plate just inside or outside the bottom of the hull (or someplace that's always below the water line) would seem to me a better idea from a practical standpoint. Surely some boater who understood basic electromagnetics has thought about this and devised a method that's both practical and effective.

> Depending on the load, the water line is going to be different, and
> will be changing constantly as fuel and food is used.
>
> Certainly any capacitive coupling through the hull makes for a
> variable capacitor? Does this have an effect?

What will cause it to vary? In any case, just make the capacitance large enough so the reactance is always small compared to the ground impedance, then it won't matter.

> Will we eventually come to the conclusion that we can't put radios on
> ships?? ;^)

It wouldn't surprise me if some folks reach that conclusion. Millions firmly believe much more ridiculous things.

Roy Lewallen, W7EL

3520. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 18:38:44 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1288uhmljvib979@corp.supernews.com>
Source record: 58462

Any theory that predicts any antenna can produce an H field without an E field, or that the H field is unusually large beyond a fraction of a wavelength from an antenna(*), is flawed. So you're free to make up any theory you like, and it'll be just as accurate.

(*) Or, from a receiving standpoint, that an antenna responds only to an H field or it responds more strongly to an H field beyond a fraction of a wavelength from the antenna.

Roy Lewallen, W7EL

justin.gill@tesco.net wrote:
> Is anyone aware of any sources of information/theory on H Field
> antennas, such as the Chelton Loop for HF?
>

3521. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 18:58:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <N9%gg.39243$4L1.31444@newssvr11.news.prodigy.com>
Source record: 58463

"Roy Lewallen" <w7el@eznec.com> wrote:
> Michael Coslo wrote:
>> Will we eventually come to the conclusion that we can't put radios on
>> ships?? ;^)
>
> It wouldn't surprise me if some folks reach that conclusion. Millions
> firmly believe much more ridiculous things.

Since the feedpoint impedance of a dipole changes as it blows
in the wind, guess we also can't use them on windy days.
--
73, Cecil http://www.qsl.net/w5dxp

3522. Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 19:04:37 UTC
From: patk1212@gmail.com
Message-ID: <1149534276.955122.310050@i40g2000cwc.googlegroups.com>
Source record: 58464
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Alot of people are telling me that CB is just for inbred hicks and that
I should replace the CB in my truck with a ham radio. What do you
thjink?

3523. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 19:16:36 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <12890oj2arv1h8e@corp.supernews.com>
Source record: 58465
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

patk1212@gmail.com wrote:

> Alot of people are telling me that CB is just for inbred hicks and that
> I should replace the CB in my truck with a ham radio. What do you
> thjink?
>
Both services have their place. I would keep the CB and install a
multi-band Ham radio such as the ICOM IC-706MKIIG or a Kenwood or Yaesu
and a multi-band antenna to match. You will find both an adventure.

Dave WD9BDZ

3524. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 19:49:05 UTC
From: dplatt@radagast.org
Message-ID: <12892lh84m3aeba@corp.supernews.com>
Source record: 58466

In article <1288uhmljvib979@corp.supernews.com>,
Roy Lewallen <w7el@eznec.com> wrote:

>Any theory that predicts any antenna can produce an H field without an E
>field, or that the H field is unusually large beyond a fraction of a
>wavelength from an antenna(*), is flawed. So you're free to make up any
>theory you like, and it'll be just as accurate.

>(*) Or, from a receiving standpoint, that an antenna responds only to an
>H field or it responds more strongly to an H field beyond a fraction of
>a wavelength from the antenna.

Upon a cursory search, it appears to me that "H-field antenna" is
probably another (perhaps misleading) term for "small shielded
receiving loop".

Discussions about the latter do seem to have the requisite amount of
lore, mythology, and strenuous disagreements as to just what this sort
of antenna does respond to and how it works.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3525. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 19:54:48 UTC
From: dplatt@radagast.org
Message-ID: <1289308tmhg8aee@corp.supernews.com>
Source record: 58467
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

In article <1149534276.955122.310050@i40g2000cwc.googlegroups.com>,
<patk1212@gmail.com> wrote:

>Alot of people are telling me that CB is just for inbred hicks and that
>I should replace the CB in my truck with a ham radio. What do you
>thjink?

I think that you asked precisely that same question (modulo one typo)
back on May 16th, April 15th, and April 3.

I think you have no serious interest in the answers you've received.

I think you're acting like a juvenile troll, and therefore receive 0
points on the Troll-o-meter (with a three-point penalty for showing an
utter lack of imagination in your trolling).

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3526. FS Antenna books.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 20:21:38 UTC
From: carxxxl <carxxxl@yahoo.com>
Message-ID: <nh4982pfpkt7cobj3qlk0o1uhtgclouchh@4ax.com>
Source record: 58468

FS Antenna books.
http://www.nst73.com/books%20&%20software.htm

3527. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 20:30:10 UTC
From: patk1212@gmail.com
Message-ID: <1149539410.440471.59840@i39g2000cwa.googlegroups.com>
Source record: 58469
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Dave Platt wrote:
> In article <1149534276.955122.310050@i40g2000cwc.googlegroups.com>,
> <patk1212@gmail.com> wrote:
>
> >Alot of people are telling me that CB is just for inbred hicks and that
> >I should replace the CB in my truck with a ham radio. What do you
> >thjink?
>
> I think that you asked precisely that same question (modulo one typo)
> back on May 16th, April 15th, and April 3.
>
> I think you have no serious interest in the answers you've received.
>
> I think you're acting like a juvenile troll, and therefore receive 0
> points on the Troll-o-meter (with a three-point penalty for showing an
> utter lack of imagination in your trolling).
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

Does this mean you're as anal retentive as your mother?

3528. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 20:58:57 UTC
From: notbob <notbob@nothome.com>
Message-ID: <dcidnawNcbWMBhnZnZ2dnUVZ_tqdnZ2d@comcast.com>
Source record: 58470
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

On 2006-06-05, patk1212@gmail.com <patk1212@gmail.com> wrote:
> Alot of people are telling me that CB is just for inbred hicks and that
> I should replace the CB in my truck with a ham radio. What do you
> thjink?

Depends on how you feel about inbred hicks. If you're right at home with rednecks, white socks, and Blue Ribbon beer, CB may be your thing. OTOH, if electronic hole theory of semiconductor physics is more your cup of tea, ham may better suit.

Both camps can be serious as a heart attack about their equipment. My late FIL was an avid CB'er. He had the first Yaesu I ever saw. A $1600 model under a huge boom antenna on a rotating mast which he used to talk skip all over the country. His boat and car both sported illegal linears pumping top o' the line Cobras. I know he didn't know spit about antenna theory, and probably more importantly, didn't care. But, he knew who to ask and being able to do so on his rig is what it's all about, right.

While I, myself, was never attracted to long discussions with truckers about the merits of strip clubs or local gossip about the "new waitress down at Bubba's", I knew some of the local CB'ers and knew they were good people. CB, specially with respect to home stations, is just another mode of communication to them. This is more true in rural communities. The ham crowd, OTOH, by it's very nature of requiring a basic knowledge of science, tends to attract a more geeky element, a more literate slice of humanity. Not necessarilly better, or even smarter, just more educated and more into the technology of radio communications.

Try them both and then choose one or the other ...or both. Good people are good people, no matter the media.

nb

3529. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 21:19:01 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1149542340.997313.268380@h76g2000cwa.googlegroups.com>
Source record: 58471

Are you trying to pull our leg? A google search for "Chelton Loop"
antenna turns up only references to a street, Chelton Loop, in Colorado
Springs. If there's a "Chelton Loop" antenna, it must not have had
much written about it.

If you want to detect magnetic fields at HF, a small coil of wire
should work well. The size would depend on the size of the magnetic
field you're probing, and the spatial accuracy you want. If you want
to receive electromagnetic signals, as others have posted, be careful
about claims of sensing "only" the H field.

Cheers,
Tom

justin.gill@tesco.net wrote:
> Is anyone aware of any sources of information/theory on H Field
> antennas, such as the Chelton Loop for HF?

3530. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 21:29:56 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e627olfii1@avnika.corp.mot.com>
Source record: 58472

<glenn.b.dixon@gmail.com> wrote in message
news:1149261241.354995.121520@y43g2000cwc.googlegroups.com...
> Thanks, Steve,
>
> Good post.

Thanks.

You do need to read a little more: by mentioning Doppler
> shifts, I was illustrating that a linear system can generate new
> frequencies without violating the law of superposition.

Hi Glenn,
I got that. Perhaps my use of "relativitistic effects" was inappropriate.
I still maintain that Doppler shift is not an example of (at least what I
would call) "creating new frequencies" because an electronis system did not
cause said shift. A system is linear or non-linear, but a system can't
"make Doppler happen". It is a frequency change, yes, but an "electronic
system" can't cause it. It occurs for reasons other than "system
characteristics". Yes, a space craft can be considered part of a system in
teh general sense, but not as I believe an "electronic system" should be
thought of when discussing such things. Perhaps symmantics in your view,
but not mine. I think it is a fundamental, but, perhaps can't explain
adequately why.
What a thread. usually when a thread gets this long it digresses far
outside the original intent.

> ...Earlier posts were
> confusing as the term 'linearity' ...electrical superposition sense
>... and ... current distribution along the antenna element.

So you *were* questioning the linearity of antennas as we understand the
term?

73, Steve

>
> 73,
> Glenn AC7ZN
>
>
>
> Steve N. wrote:
> > <glenn.b.dixon@gmail.com> wrote in message
> > news:1148486661.748365.219740@u72g2000cwu.googlegroups.com...
> > > ...> By the way, generating new frequencies is not necessarily a

violation
> > > of superposition (though it usually is). Consider a system undergoing
> > > a constant Doppler shift.
> > >
> > > 73,
> > > Glenn AC7ZN
> > >
> >
> > Glenn,
> > boy! I can't read all these posts, so I was trying to see where you
were
> > going and asking by just skimming, primarily your posts.
> >
> > The above caught my eye. Doppler is not "generating new frequencies" as
a
> > non linearity does. A non-linear system will produce harmonics with one
> > exitation frequency and produce the common mixing / IM with multiple
> > exitation (superimposed) frequencies. I think trying to mix
relativistic
> > effects in with the stationary world is an unnecessary complication of a
> > linearity discussion.
> > If I have time I'll try to follow the thread to see what you're really
> > after...but. If it takes mega watts to see some non linearity in an
> > antenna, who cares? and more importantly how will you know whree it is
> > occuring since things like the junction of two connectorc can produce
enough
> > IM to mask other, smaller sources. If you tried an experiment
looking
> > for IM / Mixing you might try to use a receiver becaue a receiver could
be a
> > very sensitive detector...but you'd have to have a pretty good receiver.
> > Something like a kW LO and mixer to have a really good intercept.
> > I'm not sure of the point here... Do antennas cause IM?
> > Sounds like a deadend arena to me.
> >
> > 73, Steve, K9DCI
>

3531. Re: J pole question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 21:36:22 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6284m$fk6$1@avnika.corp.mot.com>
Source record: 58473

Nope. Only read about it and, perhaps, understand the theory.
73, Steve, K9DCI

"Harbin" <harbinjr@adelphia.net> wrote in message
news:xNKdnePQUp5mlf3Z4p2dnA@adelphia.com...
"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e3obpl$bo9$1@avnika.corp.mot.com...

Harbin,
You seem to understand the "J-Antenna". What you really seem to be asking is how far apart is "too far" for a balanced transmission line. That's a question I can't answer and I'm sure others can, but , in the common custom of adding obtuse references which sort of seem to be relevant... what about that old one wire transmission like the "G-Line"? [no joke]

73, Steve, K9DCI

Hi Steve:
I have read about the G-Line, which is very low loss (so claimed). Have
you heard of anybody that has used this line?

3532. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 21:56:12 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrne89aef.1lav.bit-bucket@shell.config.com>
Source record: 58474

On 5 Jun 2006 12:04:37 -0700, patk1212@gmail.com wrote:
> Alot of people are telling me that CB is just for inbred hicks and that
> I should replace the CB in my truck with a ham radio. What do you
> thjink?

I think it's off topic in an antenna ng.
But, then, a usenet troll wouldn't be expected to observe protocol.

3533. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 23:50:00 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <lq3hg.1909$o4.911@newsread2.news.pas.earthlink.net>
Source record: 58475
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

patk1212@gmail.com wrote in
news:1149534276.955122.310050@i40g2000cwc.googlegroups.com:

> Alot of people are telling me that CB is just for inbred hicks and that
> I should replace the CB in my truck with a ham radio. What do you
> thjink?

Which of your trucks were you thinking of updating? Your old rust bucket
truck that still runs, or the one on blocks that you call your base
station?

sc

3534. Re: I was going through about ten years of ham catalogs, and I noticed a disturbing trend.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 23:50:02 UTC
From: Radio Buff <my.mail@no.spam>
Message-ID: <Kq3hg.1911$o4.1220@newsread2.news.pas.earthlink.net>
Source record: 58376
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Cecil Moore" <mycall@hotmail.com> wrote in
news:ZJMgg.46033$Lm5.611@newssvr12.news.prodigy.com:

> "Slow Code" <my.mail@no.spam> wrote:
>> A microphone, a six-pack, a karaoke system, & you're a star. :-)
>
> Yep, see: http://www.qsl.net/w5dxp/w5dxp.jpg

Have to start calling you Slim Whitman.

sc

3535. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-05 23:59:18 UTC
From: Woody <woody.shadetree@verizon.net>
Message-ID: <qz3hg.7586$9c7.5632@trnddc06>
Source record: 58377
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

And a big fat amen to that.
rb

"Dave Platt" <dplatt@radagast.org> wrote in message
news:1289308tmhg8aee@corp.supernews.com...
> In article <1149534276.955122.310050@i40g2000cwc.googlegroups.com>,
> <patk1212@gmail.com> wrote:
>
>>Alot of people are telling me that CB is just for inbred hicks and that
>>I should replace the CB in my truck with a ham radio. What do you
>>thjink?
>
> I think that you asked precisely that same question (modulo one typo)
> back on May 16th, April 15th, and April 3.
>
> I think you have no serious interest in the answers you've received.
>
> I think you're acting like a juvenile troll, and therefore receive 0
> points on the Troll-o-meter (with a three-point penalty for showing an
> utter lack of imagination in your trolling).
>
> --
> Dave Platt <dplatt@radagast.org> AE6EO
> Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
> I do _not_ wish to receive unsolicited commercial email, and I will
> boycott any company which has the gall to send me such ads!

3536. Re: I was going through about ten years of ham catalogs, and I noticed a disturbing trend.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 00:03:37 UTC
From: dplatt@radagast.org
Message-ID: <1289hipia64se92@corp.supernews.com>
Source record: 58378
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

>>> A microphone, a six-pack, a karaoke system, & you're a star. :-)

>> Yep, see: http://www.qsl.net/w5dxp/w5dxp.jpg

>Have to start calling you Slim Whitman.

Another definite advantage to CW, I suppose. With SSB there's no
telling when you might hear something that could make your head explode.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3537. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 00:18:46 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1149553126.195561.199130@g10g2000cwb.googlegroups.com>
Source record: 58379

I haven't been following this thread lately, but happened on this
particular posting...

Seems to me you want to say "Linear TIME INVARIANT system" to get to
not generating new frequencies. Certainly I can build a system that is
linear but not time-invariant and generate new frequencies with that
system. A simple one is a signal going into a potentiometer, coming
out the wiper, in which the wiper is rotated continuously. It's
linear, but not time invariant, and obviously any input will be
amplitued modulated at the rate of the time variation.

Is a double-balanced mixer with LO a linear system (for input signals
in the intended amplitued range)? Increasing the input amplitude by
1dB causes the output amplitude to increase by 1dB, though the output
is not at the same frequency as the input. If the response of the
DBM/LO system to input x1 is y1, and to x2 is y2, then is (y1+y2) the
response to input (x1+x2)? Is a DBM/LO system time-invariant: if I
apply stimulus x1 at time t1 do I get the same response as if I apply
it at time t2 (where the response is also shifted by t2-t1)?

Perhaps this will be useful food for thought...

Cheers,
Tom

Steve N. wrote:
> <glenn.b.dixon@gmail.com> wrote in message
> news:1149261241.354995.121520@y43g2000cwc.googlegroups.com...
> > Thanks, Steve,
> >
> > Good post.
>
> Thanks.
>
> You do need to read a little more: by mentioning Doppler
> > shifts, I was illustrating that a linear system can generate new
> > frequencies without violating the law of superposition.
>
> Hi Glenn,
> I got that. Perhaps my use of "relativitistic effects" was inappropriate.
> I still maintain that Doppler shift is not an example of (at least what I
> would call) "creating new frequencies" because an electronis system did not
> cause said shift. A system is linear or non-linear, but a system can't
> "make Doppler happen". It is a frequency change, yes, but an "electronic
> system" can't cause it. It occurs for reasons other than "system
> characteristics". Yes, a space craft can be considered part of a system in

> teh general sense, but not as I believe an "electronic system" should be
> thought of when discussing such things. Perhaps symmantics in your view,
> but not mine. I think it is a fundamental, but, perhaps can't explain
> adequately why.
> What a thread. usually when a thread gets this long it digresses far
> outside the original intent.
>
>
> > ...Earlier posts were
> > confusing as the term 'linearity' ...electrical superposition sense
> >... and ... current distribution along the antenna element.
>
> So you *were* questioning the linearity of antennas as we understand the
> term?
>
> 73, Steve
>
> >
> > 73,
> > Glenn AC7ZN
> >
> >
> >
> > Steve N. wrote:
> > > <glenn.b.dixon@gmail.com> wrote in message
> > > news:1148486661.748365.219740@u72g2000cwu.googlegroups.com...
> > > > ...> By the way, generating new frequencies is not necessarily a
> violation
> > > > of superposition (though it usually is). Consider a system undergoing
> > > > a constant Doppler shift.
> > > >
> > > > 73,
> > > > Glenn AC7ZN
> > > >
> > >
> > > Glenn,
> > > boy! I can't read all these posts, so I was trying to see where you
> were
> > > going and asking by just skimming, primarily your posts.
> > >
> > > The above caught my eye. Doppler is not "generating new frequencies" as
> a
> > > non linearity does. A non-linear system will produce harmonics with one
> > > exitation frequency and produce the common mixing / IM with multiple
> > > exitation (superimposed) frequencies. I think trying to mix
> relativistic
> > > effects in with the stationary world is an unnecessary complication of a
> > > linearity discussion.
> > > If I have time I'll try to follow the thread to see what you're really
> > > after...but. If it takes mega watts to see some non linearity in an

> > > antenna, who cares? and more importantly how will you know whree it is
> > > occuring since things like the junction of two connectorc can produce
> enough
> > > IM to mask other, smaller sources. If you tried an experiment
> looking
> > > for IM / Mixing you might try to use a receiver becaue a receiver could
> be a
> > > very sensitive detector...but you'd have to have a pretty good receiver.
> > > Something like a kW LO and mixer to have a really good intercept.
> > > I'm not sure of the point here... Do antennas cause IM?
> > > Sounds like a deadend arena to me.
> > >
> > > 73, Steve, K9DCI
> >

3538. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 00:52:42 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <vdqdnRL-KbBLTBnZnZ2dnUVZ_rGdnZ2d@adelphia.com>
Source record: 58380

Cecil Moore wrote:
> "Owen Duffy" <owen@no.where> wrote:
>
>>What's with the HTML format Cecil?
>
>
> I've switched over from Netscape to Outlook Express and have
> no idea what I am doing. I can't seem to get Outlook Express
> to compose anything in Courier fixed font.

Outlook Express? Say it ain't so Cecil!!

- 73 de Mike KB3EIA -

3539. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 01:05:20 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1149555276_31319@sp6iad.superfeed.net>
Source record: 58381

K7ITM wrote:
> Are you trying to pull our leg? A google search for "Chelton Loop"
> antenna turns up only references to a street, Chelton Loop, in Colorado
> Springs. If there's a "Chelton Loop" antenna, it must not have had
> much written about it.
>
> If you want to detect magnetic fields at HF, a small coil of wire
> should work well. The size would depend on the size of the magnetic
> field you're probing, and the spatial accuracy you want. If you want
> to receive electromagnetic signals, as others have posted, be careful
> about claims of sensing "only" the H field.
>
> Cheers,
> Tom
>
> justin.gill@tesco.net wrote:
>> Is anyone aware of any sources of information/theory on H Field
>> antennas, such as the Chelton Loop for HF?
>

FWIW, Tom, "chelton" was probably a typo. There is
indeed a Chilton Loop Antenna at a research
facility in the UK. I think the name refers to the
loop used at the Chilton facility, rather than to
a particular antenna design.

Chuck

http://www.ukssdc.ac.uk/ionosondes/chiltonpiccys.html
Pictures from the Chilton site

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3540. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 01:37:16 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4484dc50$0$1013$39cecf19@news.twtelecom.net>
Source record: 58382
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

patk1212@gmail.com wrote:

> Alot of people are telling me that CB is just for inbred hicks and that
> I should replace the CB in my truck with a ham radio. What do you
> thjink?
>

You should go for your license. The additional privelages are quite
worthwhile. I will warn you that there are still quite a few inbred
hicks that got their ham tickets, unfortunately. The good thing is most
of them seem to be extra class, and are mostly older and will be gone
soon. It's a leftover effect of requiring Morse ability as opposed to
operating knowledge.

tom
K0TAR

3541. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 02:30:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <YM5hg.39442$4L1.23048@newssvr11.news.prodigy.com>
Source record: 58383

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote:
> Outlook Express? Say it ain't so Cecil!!

I was running Netscape but Netscape 8.1 doesn't do newsgroups.
Someone recommended Thunderbird. Comments?
--
73, Cecil http://www.qsl.net/w5dxp

3542. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 02:45:23 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <7%5hg.111567$dW3.3280@newssvr21.news.prodigy.com>
Source record: 58384

This reply IS useing Thunderbird (and quite
stable, too-- Jim NN7K

Cecil Moore wrote:
> "Mike Coslo" <mremovethiscoslo@adelphia.net> wrote:
>
>>Outlook Express? Say it ain't so Cecil!!
>
>
> I was running Netscape but Netscape 8.1 doesn't do newsgroups.
> Someone recommended Thunderbird. Comments?

3543. Re: Choke /BALUN

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 03:34:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <UI6hg.39463$4L1.16893@newssvr11.news.prodigy.com>
Source record: 58385

Jim - NN7K wrote:
> This reply IS useing Thunderbird (and quite stable, too-- Jim NN7K

OK, I just downloaded Thunderbird and it looks pretty good.
--
73, Cecil http://www.qsl.net/w5dxp

3544. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 04:22:47 UTC
From: WX <abcdefg@abcd.kk>
Message-ID: <4489a67c$0$29724$4fafbaef@reader2.news.tin.it>
Source record: 58203
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

http://home.planet.nl/~pa3ebt/IARU-R1/25_5.htm

3545. sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 04:31:07 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <fy7hg.52579$9c6.12825@dukeread11>
Source record: 58386
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

Can anyone tell me what the official name of the putty they use to seal the holes you run your coax through so bugs don't crawl in the wall or water doesn't get in? I like to get all my hardware type items from mcmaster.com. I'm sure they have it, if I just know what it is called I can find it on their website.

--
Chris W
KE5GIX

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3546. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 04:50:05 UTC
From: dplatt@radagast.org
Message-ID: <128a2bt67gcjd4d@corp.supernews.com>
Source record: 58387
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

In article <fy7hg.52579$9c6.12825@dukeread11>,
Chris W <1qazse4@cox.net> wrote:

>Can anyone tell me what the official name of the putty they use to seal
>the holes you run your coax through so bugs don't crawl in the wall or
>water doesn't get in? I like to get all my hardware type items from
>mcmaster.com.

The box I have here says "One roll RTE62 R-type re-enterable sealing
material". RTE62 seems to be a 3M product type.

A similar product seems to be Google-able under the term "electrical
duct sealant" or "mastic". GB Electrical DS-110 is one type that
comes up... about $3/pound in quantity.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

3547. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 04:59:38 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <128a2tq2vmeil53@corp.supernews.com>
Source record: 58388
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Tom Ring wrote:

> patk1212@gmail.com wrote:
>
>> Alot of people are telling me that CB is just for inbred hicks and that
>> I should replace the CB in my truck with a ham radio. What do you
>> thjink?
>>
>
> You should go for your license. The additional privelages are quite
> worthwhile. I will warn you that there are still quite a few inbred
> hicks that got their ham tickets, unfortunately. The good thing is most
> of them seem to be extra class, and are mostly older and will be gone
> soon. It's a leftover effect of requiring Morse ability as opposed to
> operating knowledge.
>
> tom
> K0TAR

The problem with the newbys with nocode techs is that they don't realize
that knowing the code is just as important as knowing how to press the
on/off button.

Dave WD9BDZ

3548. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 05:08:41 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <t58hg.52585$9c6.120@dukeread11>
Source record: 58389
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

Dave Platt wrote:

> "electrical > duct sealant" or "mastic".

I have some mastic but I thought that was just for sealing around
connectors not to seal the hole the in the wall the coax comes through.

--
Chris W
KE5GIX

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give the gifts they want
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from anywhere, for any occasion!
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3549. Re: ARS License Numbers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 06:47:55 UTC
From: nm5k@wt.net
Message-ID: <1149576475.362906.88020@g10g2000cwb.googlegroups.com>
Source record: 58390
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap

Roger wrote:
> On 21 May 2006 23:36:10 -0700, nm5k@wt.net wrote:

>
> >dang ugly... Slopsville. The keyboards could kick back and type
> >about any CW speed with perfect sending. A decent typist can go
> >over 100 wpm+.
>
> There are few people who can type that fast. However on CW you type
> your response while listening to the other station so the transmission
> speed can be well above your typing speed.

Heck, my mother who was a legal secretary could go well over
100 wpm. On the old selectrics, I think she probably did 120-140+ wpm.
She made very few mistakes too. About like a typing machine..
I don't like responding while the other person is sending. At 55-60
wpm,
it could lead to some mistakes in copy.. :/ I do that on RTTY, PSK31,
but not CW. When I worked faster CW, I listened mostly in my head,
and only wrote down the important stuff like call, name.. But I sent
normally using a bencher paddle. I don't really use it like a squeeze
keyer either. More like an automatic bug. I side slap and rarely use
the squeeze method to make letters. I'm still using the same bencher
I have had for at least 20+ years.. Guess I'm getting my moneys worth..
I have a homebrew keyer that was built at the same time, and it still
works too.. :)
MK

3550. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 06:56:52 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1149577012.112304.95720@f6g2000cwb.googlegroups.com>
Source record: 58391

I recall a prof or two arm-waving over that one. However, I think if you formulate your definition of linearity properly, the transfer function y=mx+b will still satisfy linearity. Specifically, if the _response_ is the _change_ that occurs in the output going from x=0 to x=x1, then the response for x1 is (m*x1+b)-(m*0+b) = m*x1, and of course for x2, it's m*x2. The response for x=x1+x2 is m*(x1+x2), which is exactly the sum of the responses for x1 and x2.

Similarly, for a mixer/LO system with RF input and IF output, if the mixer is unbalanced and lets LO get through, it is still a linear system if the change in output when go from zero input to input x1(t) plus the change in output when you go from zero input to input x2(t) is equal to the change in output when you go from zero input to input (x1(t)+x2(t)).

But note that a mixer/LO system is NOT time invariant, because the output for x1(t+delta) is in general NOT the same as the output shifted in time by delta for input x1(t).

You can most certainly find text books that define linearity differently than I did above. I find the definition above to be a more useful one, however, and it seems to be the one generally accepted in practice, even if it's not stated accurately in words.

Cheers,
Tom

Roy Lewallen wrote:
> Richard Harrison wrote:
> > Richard Clark, KB7QHC wrote:
> > "Who. in your estimation, does qualify to discuss it?"
> >
> > If it`s about antennas, I nominate Kraus. If it`s about mathematics,
> > many marhematicians qualify.
> >
> > In algebra, y = mx + b, (the point slope formula), is called linear
> > because it is the graph of a straight line.
> > . . .
>
> But of course you realize that the function y = mx + b doesn't meet the
> requirements of a linear function when applied to network theory.
>
> Roy Lewallen, W7EL

3551. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 07:25:50 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <128abg1dlvo96ae@corp.supernews.com>
Source record: 58392

It's not clear to me whether you're proposing an alternative definition for linearity or for superposition. I've never seen superposition defined as other than that the sum of responses to individual excitations be equal to the response to the sum of the excitations -- that's the definition in Pearson & Maler's _Introductory Circuit Analysis_, Van Valkenburg's _Network Analysis_, and the rather old edition of the _IEEE Standard Dictonary of Electrical and Electronic Terms_ I have. Do you have a reference that gives the definition you propose for superposition?

If on the other hand the alternative definition is only for linearity, we'd then be faced with the possibility of having a linear (and time-invariant) circuit which doesn't satisfy superposition. That's not a pleasant circumstance to ponder.

Roy Lewallen, W7EL

K7ITM wrote:
> I recall a prof or two arm-waving over that one. However, I think if
> you formulate your definition of linearity properly, the transfer
> function y=mx+b will still satisfy linearity. Specifically, if the
> _response_ is the _change_ that occurs in the output going from x=0 to
> x=x1, then the response for x1 is (m*x1+b)-(m*0+b) = m*x1, and of
> course for x2, it's m*x2. The response for x=x1+x2 is m*(x1+x2), which
> is exactly the sum of the responses for x1 and x2.
>
> Similarly, for a mixer/LO system with RF input and IF output, if the
> mixer is unbalanced and lets LO get through, it is still a linear
> system if the change in output when go from zero input to input x1(t)
> plus the change in output when you go from zero input to input x2(t) is
> equal to the change in output when you go from zero input to input
> (x1(t)+x2(t)).
>
> But note that a mixer/LO system is NOT time invariant, because the
> output for x1(t+delta) is in general NOT the same as the output shifted
> in time by delta for input x1(t).
>
> You can most certainly find text books that define linearity
> differently than I did above. I find the definition above to be a more
> useful one, however, and it seems to be the one generally accepted in
> practice, even if it's not stated accurately in words.
>
> Cheers,
> Tom

3552. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 07:38:08 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <68L5DZFgDThEFAGn@ifwtech.co.uk>
Source record: 58393

chuck wrote:
>
>FWIW, Tom, "chelton" was probably a typo. There is indeed a Chilton
>Loop Antenna at a research facility in the UK. I think the name refers
>to the loop used at the Chilton facility, rather than to a particular
>antenna design.
>
There seem to be two possible kinds of "Chilton loop".

One is at www.chilton.com, which is a web-controlled SW radio receiver
located in the USA. This is just a loop of wire in some guy's attic.

The second kind may be related to the ionosondes located at the
Rutherford Appleton Lab, Chilton, UK; and at Port Stanley, Falkland
Islands. These do use crossed loop antennas (as the referenced picture
shows)... but in 25 years living just a few miles down the road,
including 12 years of working right next to RAL and regularly eating
lunch with the hams who work there, I never heard or saw the term
"Chilton loop" until yesterday, right here.

However, I will make some specific inquiries about those loops.

Now if you want something really serious to talk about, those
RAL/Stanley ionosondes are being closed down! The scientists who work
there are horrified, because it would pull the plug on a major
international source of daily data, and terminate the world's
longest-running continuous sequence of ionospheric observations:
http://www.wdc.rl.ac.uk/wdcc1/news/closure_notice.html

(This actually looks like a clumsy political move to shift the running
costs away from the UK science budget and find some other source of
funding, using the threat of closure as a way to get attention. But
suicide bids of this kind can occasionally go wrong...)

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3553. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 10:15:49 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <tzchg.49502$qd2.8685@bignews6.bellsouth.net>
Source record: 58394

"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
news:68L5DZFgDThEFAGn@ifwtech.co.uk...
> chuck wrote:
>>
>>FWIW, Tom, "chelton" was probably a typo. There is indeed a Chilton Loop
>>Antenna at a research facility in the UK. I think the name refers to the
>>loop used at the Chilton facility, rather than to a particular antenna
>>design.
>>
> There seem to be two possible kinds of "Chilton loop".
>
> One is at www.chilton.com, which is a web-controlled SW radio receiver
> located in the USA. This is just a loop of wire in some guy's attic.
>
> The second kind may be related to the ionosondes located at the Rutherford
> Appleton Lab, Chilton, UK; and at Port Stanley, Falkland Islands. These do
> use crossed loop antennas (as the referenced picture shows)... but in 25
> years living just a few miles down the road, including 12 years of working
> right next to RAL and regularly eating lunch with the hams who work there,
> I never heard or saw the term "Chilton loop" until yesterday, right here.
>
> However, I will make some specific inquiries about those loops.
>
>
> Now if you want something really serious to talk about, those RAL/Stanley
> ionosondes are being closed down! The scientists who work there are
> horrified, because it would pull the plug on a major international source
> of daily data, and terminate the world's longest-running continuous
> sequence of ionospheric observations:
> http://www.wdc.rl.ac.uk/wdcc1/news/closure_notice.html
>
> (This actually looks like a clumsy political move to shift the running
> costs away from the UK science budget and find some other source of
> funding, using the threat of closure as a way to get attention. But
> suicide bids of this kind can occasionally go wrong...)
>
>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

There is a company named Chelton that makes antennas listed on the web.
Shows reference to a lot of military stuff. If they are claiming they have
an H antenna then.....

3554. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 10:37:13 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1149590233.344684.227720@f6g2000cwb.googlegroups.com>
Source record: 58395

Steve N. wrote:

> So you *were* questioning the linearity of antennas as we understand the
> term?

No. I was claiming antennas were very linear in the electrical
superposition sense.

73,
Glenn

3555. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 11:44:55 UTC
From: Brian MW3BAU / 2W0BDW <notsaying@here.com>
Message-ID: <XUdhg.8105$qD.5094@newsfe1-gui.ntli.net>
Source record: 58396

"Chris W" <1qazse4@cox.net> wrote in message
news:fy7hg.52579$9c6.12825@dukeread11...
> Can anyone tell me what the official name of the putty they use to seal
> the holes you run your coax through so bugs don't crawl in the wall or
> water doesn't get in? I like to get all my hardware type items from
> mcmaster.com. I'm sure they have it, if I just know what it is called I
> can find it on their website.
>
>
>
> --
> Chris W
> KE5GIX

I use a silicone based sealant designed for double glazing fitting. It
stands up to UV rays and stops bugs, rain etc.

3556. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 11:48:49 UTC
From: glenn.b.dixon@gmail.com
Message-ID: <1149594529.433464.294310@g10g2000cwb.googlegroups.com>
Source record: 58397

Roy Lewallen wrote:
> It's not clear to me whether you're proposing an alternative definition
> for linearity or for superposition.
>
Lest anyone think that the addition of an offset term (the b in y=mx+b)
violating superposition is merely of academic interest, analyze a
direct conversion receiver. At my shack I have a Softrock 40, which
tunes about thirty KHz of the 40 meter band. At the center of the
spectrum (which corresponds to the mixer converting to very low
frequencies and DC) is a 1/f bump that the designers have attributed to
mixer 1/f noise. But it is not noise at all. When tuned in, it is
full of strong signals and strange sounds. These are distortion
products, and are caused mainly by the b term in the detector used on
the receiver.

They wipe out about 3% of the receivable band.

Sometimes the b term is benign, but not in this case.

73,
Glenn Dixon AC7ZN

3557. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 11:49:51 UTC
From: John Passaneau <jxp16@psu.edu>
Message-ID: <e63q4v$1nuc$1@f04n12.cac.psu.edu>
Source record: 58398

I use the Duct seal. It works well, your can get it off when needed and is the standard stuff for that sort of work around here in the electrical industry.

--
John Passaneau, W3JXP
State College Pennsylvania
jxp16@psu.edu

"Brian MW3BAU / 2W0BDW" <notsaying@here.com> wrote in message news:XUdhg.8105$qD.5094@newsfe1-gui.ntli.net...
>
> "Chris W" <1qazse4@cox.net> wrote in message
> news:fy7hg.52579$9c6.12825@dukeread11...
>> Can anyone tell me what the official name of the putty they use to seal
>> the holes you run your coax through so bugs don't crawl in the wall or
>> water doesn't get in? I like to get all my hardware type items from
>> mcmaster.com. I'm sure they have it, if I just know what it is called I
>> can find it on their website.
>>
>>
>>
>> --
>> Chris W
>> KE5GIX
>
> I use a silicone based sealant designed for double glazing fitting. It
> stands up to UV rays and stops bugs, rain etc.
>

3558. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 12:00:25 UTC
From: K8MNsuxdix <k8mnsuxdix@yahoo.com>
Message-ID: <1149595225.477390.22330@y43g2000cwc.googlegroups.com>
Source record: 58399
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

an old retard who can't pasds the code whined:
> John S. wrote:
> > Radio Buff wrote:
> > > "J. D. B." <duffyb01@nospamfuse.net> wrote in
> > > news:9e847$4482def6$d06640f9$28274@FUSE.NET:
> > >
>
> > >
> > > Any retard can use a computer. Look around.
> >
> > As we all know the licensing requirement does not eliminate idiots on
> > the bands. Far from it unfortunately.
>
> in the case of this requirement it justmakes the whole look bad
>
> testing 1800's tech in the 21st century

Wrong, stupid, it keeps losers like you away from the real ham
operators.

-- /- . /.- . /--.- /..- /. /. /.-. / - / ..../ . /-... / ..- /-- /
-... / -. / ... / .../ .-.-.- /

3559. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 12:16:51 UTC
From: "J. D. B." <duffyb01@nospamfuse.net>
Message-ID: <b746f$448572ad$d06640f9$22084@FUSE.NET>
Source record: 58400
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

That is a very good point that I never considered. In thinking about it,
it makes perfect sense. "Mode Welfare" - too funny.

JDB

an old friend wrote:
>
> the concern is obvious for decades the CW crowd has relied on the
> requirement to force all ham to at try it. mode welfare. they are afaid
> without that stick the mode will die . it show a lack ocnvednce in the
> mode
>

3560. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 12:18:48 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <5isa8294s7h2n8qtlpe39amh3qna7oa4hk@4ax.com>
Source record: 58401
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

ORIGINAL MESSAGE:

On Mon, 05 Jun 2006 23:59:38 -0500, "David G. Nagel" <nagel@core.com>
wrote:

>The problem with the newbys with nocode techs is that they don't realize
>that knowing the code is just as important as knowing how to press the
>on/off button.
>
>Dave WD9BDZ

********** REPLY SEPARATOR **********

"Just as important"?

Boggles the mind.

73, Bill W6WRT
49 yr ham, Extra Class

3561. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 12:30:48 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1149597048.871173.224130@u72g2000cwu.googlegroups.com>
Source record: 58402
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
an old freind wrote:
> John S. wrote:
> > Radio Buff wrote:
> > > "J. D. B." <duffyb01@nospamfuse.net> wrote in
> > > news:9e847$4482def6$d06640f9$28274@FUSE.NET:
> > >
>
> > >
> > > Any retard can use a computer. Look around.
> >
> > As we all know the licensing requirement does not eliminate idiots on
> > the bands. Far from it unfortunately.
>
> in the case of this requirement it justmakes the whole look bad
>
> testing 1800's tech in the 21st century

Uh, yeah. Kind of like requiring mastery of the buggy whip for
prospective car drivers.
```

3562. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 12:35:57 UTC
From: F8BOE <f8boe-8@bluemail.ch>
Message-ID: <448576ab$0$22052$626a54ce@news.free.fr>
Source record: 58403

yes

3563. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 13:36:21 UTC
From: clfe <Nospam@clfurent.com>
Message-ID: <4485851f$0$3708$ecde5a14@news.coretel.net>
Source record: 58404
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Bill Turner" <dezrat@copper.net> wrote in message
news:5isa8294s7h2n8qtlpe39amh3qna7oa4hk@4ax.com...
> ORIGINAL MESSAGE:
>
> On Mon, 05 Jun 2006 23:59:38 -0500, "David G. Nagel" <nagel@core.com>
> wrote:
>
>>The problem with the newbys with nocode techs is that they don't realize
>>that knowing the code is just as important as knowing how to press the
>>on/off button.
>>
>>Dave WD9BDZ
>
> ********** REPLY SEPARATOR **********
>
> "Just as important"?
>
> Boggles the mind.
>
> 73, Bill W6WRT
> 49 yr ham, Extra Class

I don't think you can really expect the newbies to want/desire to know that which they know may be being phased out soon. Why worry about learning it if they know it will soon be gone?

I am of the opinion that a 5 WPM at least - should be kept on as a requirement - as someday - it may be needed. Think not? Say you're in the midst of an attack - of terrorism, a war on our homefront OR a large scale natural disaster, a microphone isn't working or available. You can key the radio but don't know code - now what? With code, even at 5 WPM - you could get some very important information to those needing it to help save you - to them. You could tell them WITH code, what is needed, exact whereabouts, how many people involved, etc..... Just clicking a mic pin with a wire won't tell anyone anything and could delay any help or a response big enough to do much good. In these times with the large scale disasters as we've seen and attacks - even for any said to be planned, NOW is a good time to WANT to know code. IT may save you..... It is one of those skills you learn - just like CPR or whatever - you hope you never have to use, but you're glad you have it - when you need it.

5 WPM is NOT hard to learn or do. ANYONE with any interest can learn it in a month at most if you take x amount of characters a day and start using them. Many learn it sooner but it shouldn't take more than a month to get to 5

WPM. "I" know how I learned it but my method won't work for all, just as others didn't work for me. But the main thing is, you must "want" to learn it. If you were 16 and didn't want to learn to drive a car - plain and simple your driving days would be non-existant or very short lived at best- point being MOST 16 year olds WANT to learn to drive. YOU HAVE TO WANT IT.

Many of you may have heard of the Quecreek Mine incident in PA some time ago. A pipe was drilled down into the shaft. Those at the surface heard 9 taps on it, signifying there were 9 miners there. NOW - if any of those miners KNEW code, they could have gotten a message to the surface as to what conditions were exactly, the extent of injuries as best they could, etc. Maybe even instructions to help those on the surface plan their moves a tad better. Luckily, the 9 were saved but that is an example of just those 9 taps - crude MORSE - which sent a valid message. Were it not for that, no one would have known they were alive until someone may have went in. AND - MAYBE - those digging operations after a couple hours would have slowed due to lost hope. The fact they knew those guys were still alive gave them urgency to press on..... Code CAN have a place in your life.

clfe

3564. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 13:54:14 UTC
From: clfe <Nospam@clfurent.com>
Message-ID: <44858906$0$3702$ecde5a14@news.coretel.net>
Source record: 58405
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"clfe" <Nospam@clfurent.com> wrote in message
news:4485851f$0$3708$ecde5a14@news.coretel.net...
> "Bill Turner" <dezrat@copper.net> wrote in message
> news:5isa8294s7h2n8qtlpe39amh3qna7oa4hk@4ax.com...
>> ORIGINAL MESSAGE:
>>
>> On Mon, 05 Jun 2006 23:59:38 -0500, "David G. Nagel" <nagel@core.com>
>> wrote:
>>
>>>The problem with the newbys with nocode techs is that they don't realize
>>>that knowing the code is just as important as knowing how to press the
>>>on/off button.
>>>
>>>Dave WD9BDZ
>>
>> ********** REPLY SEPARATOR **********
>>
>> "Just as important"?
>>
>> Boggles the mind.
>>
>> 73, Bill W6WRT
>> 49 yr ham, Extra Class
>
> I don't think you can really expect the newbies to want/desire to know
> that which they know may be being phased out soon. Why worry about
> learning it if they know it will soon be gone?
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> I am of the opinion that a 5 WPM at least - should be kept on as a
> requirement - as someday - it may be needed. Think not? Say you're in the
> midst of an attack - of terrorism, a war on our homefront OR a large scale
> natural disaster, a microphone isn't working or available. You can key the
> radio but don't know code - now what? With code, even at 5 WPM - you could
> get some very important information to those needing it to help save you -
> to them. You could tell them WITH code, what is needed, exact whereabouts,
> how many people involved, etc..... Just clicking a mic pin with a wire
> won't tell anyone anything and could delay any help or a response big
> enough to do much good. In these times with the large scale disasters as
> we've seen and attacks - even for any said to be planned, NOW is a good
> time to WANT to know code. IT may save you..... It is one of those
> skills you learn - just like CPR or whatever - you hope you never have to
> use, but you're glad you have it - when you need it.
>

> 5 WPM is NOT hard to learn or do. ANYONE with any interest can learn it in
> a month at most if you take x amount of characters a day and start using
> them. Many learn it sooner but it shouldn't take more than a month to get
> to 5 WPM. "I" know how I learned it but my method won't work for all, just
> as others didn't work for me. But the main thing is, you must "want" to
> learn it. If you were 16 and didn't want to learn to drive a car - plain
> and simple your driving days would be non-existant or very short lived at
> best- point being MOST 16 year olds WANT to learn to drive. YOU HAVE TO
> WANT IT.
>
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> ago. A pipe was drilled down into the shaft. Those at the surface heard 9
> taps on it, signifying there were 9 miners there. NOW - if any of those
> miners KNEW code, they could have gotten a message to the surface as to
> what conditions were exactly, the extent of injuries as best they could,
> etc. Maybe even instructions to help those on the surface plan their moves
> a tad better. Luckily, the 9 were saved but that is an example of just
> those 9 taps - crude MORSE - which sent a valid message. Were it not for
> that, no one would have known they were alive until someone may have went
> in. AND - MAYBE - those digging operations after a couple hours would have
> slowed due to lost hope. The fact they knew those guys were still alive
> gave them urgency to press on..... Code CAN have a place in your life.
>
> clfe
>

One other thing..... I cut my teeth on CB back when the FCC was busting CBers regularly for violations. I then got into Ham and Electronics. ALL radio services "CAN" and "DO" have a place when it comes to chatting, information exchange OR emergencies. ALL groups "can" work in unison for the betterment of mankind if desired. Ham has it's place. CB was used mostly by those such as "Auxiliary Police" - where not everyone had to have a "code" much less a license to have studied for - to use radios for their purposes. SEAT-REACT when operated properly was as useful as the Ham groups for emergencies.
At one time, I belonged to REACT and some local Ham groups. I'm heavily involved in Public Safety - so I got the best of both worlds. The REACT team died and if I'm not mistaken, maybe the founding unit. Believe me - in a HUGE disaster our fire band was SWAMPED. Ham and CB alike WERE IMPORTANT. I had information on both coming to me - which was of enormous help. I was getting information that was not able to be had via the Fire Radio - due to it being so laden with traffic. I often use FRS radios now too - to avoid tying up the Fire Frequencies here. I USE WHAT I MUST to get the job done.

clfe

An EMA Coordinator/Firefighter - line officer and former medic - self employed in radio.

3565. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 14:00:55 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <Hklhg.1921$gv2.101@bignews3.bellsouth.net>
Source record: 58416
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

"Chris W" <1qazse4@cox.net> wrote in message
news:fy7hg.52579$9c6.12825@dukeread11...
> Can anyone tell me what the official name of the putty they use to seal
> the holes you run your coax through so bugs don't crawl in the wall or
> water doesn't get in? I like to get all my hardware type items from
> mcmaster.com. I'm sure they have it, if I just know what it is called I
> can find it on their website.
>
>
>
> --
> Chris W
> KE5GIX
>
> Gift Giving Made Easy
> Get the gifts you want &
> give the gifts they want
> One stop wish list for any gift,
> from anywhere, for any occasion!
> http://thewishzone.com

Pull the cable out of the wall from hte outside by a couple of inches, place a good dollop of silicon caulk (the same stuff you use to caulk around your windows) about an inch or two from the wall then pull the cable back inside. This will make a custom fitted grommet . Dress the cable downward from the hole so water run away from the hole. Think drip loop

3566. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 14:49:15 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <Geghg.22$ju7.13@fe09.lga>
Source record: 58406

OK, let me display my ignorance once again.

There are many construction articles about ferrite-core antennas for the low bands. (Not to mention all the ferrite-core antennas in AM receivers.) Are these not H-field antennas, to a large extent?

Bill
W2WO

3567. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 15:16:37 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1149606997.736862.209000@c74g2000cwc.googlegroups.com>
Source record: 58407
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

J. D. B. wrote:
> That is a very good point that I never considered. In thinking about it,
> it makes perfect sense. "Mode Welfare" - too funny.
well thank you for making my day Sir

although the phrase isn't mine it cames from the regulars here on RRAp
from back in 1990's
>
> JDB
>
> an old friend wrote:
> >
> > the concern is obvious for decades the CW crowd has relied on the
> > requirement to force all ham to at try it. mode welfare. they are afaid
> > without that stick the mode will die . it show a lack ocnvednce in the
> > mode
> >

3568. FS: High Quality Coax Connectors & Adapters at very low prices

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 16:42:39 UTC
From: AAA RF Products <sales@aaarfproducts.com>
Message-ID: <%fihg.6120$rS6.5893@fed1read11>
Source record: 58408
Cross-posted to:
misc.industry.electronics.marketplace,rec.boats.electronics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors

Please email sales@aaarfproducts.com or call 949 481 3154 (San Clemente, CA, USA) for a copy of our latest catalog.

3569. Jury-rigged SMA connector

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 17:03:04 UTC
From: NathanielColson@gmail.com
Message-ID: <1149613384.452791.180750@i39g2000cwa.googlegroups.com>
Source record: 58409

I'm a UCF student working on an indoor mobile robot positioning system based on RFID, and I want to connect the SMA cable of a 13.56MHz single-loop antenna to two pins of a straight-pin header on an RFID reader.

My question is, will the characteristics of my antenna be shot to pieces if I just solder jumpers from the contacts of the coaxial SMA cable to the two header pins? Is it going to cause noise, interference, etc. to use those two straight wires for a short distance instead of the central wire and braided sheath?

antenna:
http://www.ti.com/rfid/docs/manuals/pdfSpecs/RI-ANT-T01AdataSheet.pdf
reader:
http://www.ti.com/rfid/docs/manuals/refmanuals/RI-STU-TRDCrefGuide.pdf

Thanks!
Nathaniel

3570. Well, I got my CondoBuster antenna up

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 17:33:54 UTC
From: sanktgilgen@gmail.com
Message-ID: <1149615234.018536.244700@g10g2000cwb.googlegroups.com>
Source record: 58410

So, I bought one of those CondoBuster 10 12 15 17 and 20 meter antennas that the guy sells on ebay for $20. It came last week and I hand the maintenance guy, who is also my fishing buddy, come over on Saturday to help me put it up.

I live on the top floor of a two story condo building. We have a peak type roof that extends out over about half of our balcony. So, what we did with install this antenna, which is an off center fed dipole, as an inverted vee from the peak on the roof and then ran the legs down the end of each of the roof sections. The antenna was mounted with little C shaped stand off insulators. The antenna is black and the insulators are black so it is real difficult to see if you are more then 15 or 20 feet away from it.

I connected it to my Kenwood 850 and made a couple contacts on 20 and a couple on 17. The antenna appeared to work quite well. But I wanted to find out just how well it worked compared to the antenna I was using. For the past 4 or 5 years I have been using the older model of the B&W Cliff Dweller antennas. Not the newer one, but the older one that has the interchangeable coils. It is just one hell of a good antenna.

So, anyhow, I went over to a friend's house and borrowed and antenna switch, brought it home and connected both the CondoBuster and the B&W to it so I could switch back and forth. Well, the guy who sells these says you will be amazed, and I was. Generally there was a difference of between one to three S-units on a given signal on the receive site and about one to two S-units on the transmit side. The difference is profound.

I am feeding it with RG-58U. No balun, the antenna tuner in the 850 matches it perfectly. I am just happy as hell with the antenna. It is the best 20 bucks I have ever spent on ham gear.

73s Art

3571. Re: Jury-rigged SMA connector

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 17:34:23 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1149615263.893638.204600@f6g2000cwb.googlegroups.com>
Source record: 58411

No it won't be a problem. You just need to keep such leads short with
respect to a wavelength at the frequency of operation, and, well,
13.56MHz is around 20m wavelength, so you won't have a problem with a
couple centimeters of wire.

Personally, as a matter of style, I'd probably solder a mating SMA
connector directly to the header using the shortest possible wires and
then add some hot glue or epoxy to mechanically stabilize the connector
to the header, but that's just me :-) It makes it easy to add more
cable later if you need.

You could also cut the SMA off the cable and solder the coax center
conductor and braid to the two header pins. I feel like it's probably
pretty easy to short out an SMA with solder blobs.

Dan
N3OX
www.n3ox.net

NathanielColson@gmail.com wrote:
> I'm a UCF student working on an indoor mobile robot positioning system
> based on RFID, and I want to connect the SMA cable of a 13.56MHz
> single-loop antenna to two pins of a straight-pin header on an RFID
> reader.
>
> My question is, will the characteristics of my antenna be shot to
> pieces if I just solder jumpers from the contacts of the coaxial SMA
> cable to the two header pins? Is it going to cause noise, interference,
> etc. to use those two straight wires for a short distance instead of
> the central wire and braided sheath?
>
> antenna:
> http://www.ti.com/rfid/docs/manuals/pdfSpecs/RI-ANT-T01AdataSheet.pdf
> reader:
> http://www.ti.com/rfid/docs/manuals/refmanuals/RI-STU-TRDCrefGuide.pdf
>
> Thanks!
> Nathaniel

3572. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 18:16:16 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <128bhjj6t6a6jb9@corp.supernews.com>
Source record: 58412

Bill Ogden wrote:
> OK, let me display my ignorance once again.
>
> There are many construction articles about ferrite-core antennas for the low
> bands. (Not to mention all the ferrite-core antennas in AM receivers.) Are
> these not H-field antennas, to a large extent?

Only very locally, and only to a limited extent.

When a signal originates far from an antenna, the response to E and H fields is in the ratio of about 377 ohms, the impedance of free space. This is true for *all antennas*. In other words, all antennas have the same relative E and H response to signals originating far away.

Very close to a small loop antenna, response is greater to an H field than E field. It does respond to both, however, as all antennas must. As you get farther away from the antenna, the response to the H field decreases in relation to the E field response. At around an eighth wavelength distance from the antenna, the response to E and H fields are about the same as for a distant source. Beyond about an eighth wavelength, the response to the H field is actually *less* than the response to an E field compared to a source at a great distance. The ratio of E to H field responses then decreases to the distant value as you get farther from the antenna.

In summary, the antenna responds more strongly to the H field if the source is within about an eighth of a wavelength from the antenna. Beyond that, it actually responds more strongly to the E field relative to the H field than a short dipole or many other antennas -- you could more properly call it an "E-field antenna" in its response to signals beyond about an eighth wavelength. The difference in relative E and H field response among all antennas becomes negligible at great distances; for antennas which are small in terms of wavelength, the difference becomes negligible beyond about a wavelength.

Now, suppose you could make a magic antenna which would respond only to the H field of a signal originating at any distance from the antenna (which is impossible). What advantage would it have over a real antenna? Remember that the E/H ratio of any signal originating very far away is 377 ohms, regardless of what kind of antenna or source it came from.

Roy Lewallen, W7EL

3573. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 18:50:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <L7khg.18329$VE1.4771@newssvr14.news.prodigy.com>
Source record: 58413
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

J. D. B. wrote:
> That is a very good point that I never considered. In thinking about it,
> it makes perfect sense. "Mode Welfare" - too funny.

You could also consider the written exams to be technical
knowledge welfare and rules and regulations welfare.
--
73, Cecil http://www.qsl.net/w5dxp

3574. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 18:59:37 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e64jaqmml1@avnika.corp.mot.com>
Source record: 58415

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:qyPfg.28259$QP4.21821@fed1read12...
>
> "Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
> news:e5nbit$5p4$1@avnika.corp.mot.com...
> > And so it goes...
>
> < snip >
>
> > I was in the Phillipines, uh oh! it's comming back ... NAV COM STA PHIL
>
>
> Likewise. I was a CTMSN/CTM3 there. April 1963 - August 1964. Worked in
> the receiver building. I have run into a lot of guys who were there --
all
> later than this graybeard. I don't recognize your name, even with the
extra
> u's taken out.
>
> John
> KD6VKW

Lets see... Basic in G.L., A school in Pensacola then I was there...mid 65
to Sept 66. Just "down the road"... CTM3 at the DF site. Names fail me
for 90% of the guys... Passed the test & Practical Factors for CTM2, but
wouldn't sign up for the full 6 active so I spent the last several monthc
fixing typewriters in the receiver bldg instead of going to the site at
Cleat AFB. Boo hoo (short timer from day one)
There were a couple of Air Force guys still there, but not for long.
Do you know about the web site?
http://www.usncva.org/
didn't see any recognizable names there.

73, Steve, K9DCI

3575. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 19:01:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Yhkhg.18337$VE1.10294@newssvr14.news.prodigy.com>
Source record: 58414
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

clfe wrote:
> Many of you may have heard of the Quecreek Mine incident in PA some time
> ago. A pipe was drilled down into the shaft. Those at the surface heard 9
> taps on it, signifying there were 9 miners there. NOW - if any of those
> miners KNEW code, they could have gotten a message to the surface as to what
> conditions were exactly, the extent of injuries as best they could, etc.

Not by tapping. International Morse requires dashes as well
as taps (dots). There is a tap code used in prisons that will
accomplish communications under those circumstances. And since
more people have been in prison than hold an amateur radio
license, seems that it would make more sense to require knowing
the tap code than to require knowing International Morse code.
--
73, Cecil http://www.qsl.net/w5dxp

3576. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 20:46:56 UTC
From: richardharrison@webtv.net
Message-ID: <23774-4485E9C0-784@storefull-3257.bay.webtv.net>
Source record: 58418

Justin Gill wrote:
"Is anyone aware of any source of information / theory on H Field antennas, such as Chelton Loop for HF?'

Search on H-field antenna. Then click on "Standard H-field NRSC antenna -Chris Scott and Associates. The LP-S series stanard H-field Antenna is specifically designed for emission measurement of AM broadcast stations using a spectrum analyzer or other calibrated receiver.

Best regards, Richard Harrison, KB5WZI

3577. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 20:50:05 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1149626355_40043@sp6iad.superfeed.net>
Source record: 58417

Roy Lewallen wrote:
> Bill Ogden wrote:
>> OK, let me display my ignorance once again.
>>
>> There are many construction articles about ferrite-core antennas for
>> the low
>> bands. (Not to mention all the ferrite-core antennas in AM
>> receivers.) Are
>> these not H-field antennas, to a large extent?
>
> Only very locally, and only to a limited extent.
>
> When a signal originates far from an antenna, the response to E and H
> fields is in the ratio of about 377 ohms, the impedance of free space.
> This is true for *all antennas*. In other words, all antennas have the
> same relative E and H response to signals originating far away.
>
> Very close to a small loop antenna, response is greater to an H field
> than E field. It does respond to both, however, as all antennas must. As
> you get farther away from the antenna, the response to the H field
> decreases in relation to the E field response. At around an eighth
> wavelength distance from the antenna, the response to E and H fields are
> about the same as for a distant source. Beyond about an eighth
> wavelength, the response to the H field is actually *less* than the
> response to an E field compared to a source at a great distance. The
> ratio of E to H field responses then decreases to the distant value as
> you get farther from the antenna.
>
> In summary, the antenna responds more strongly to the H field if the
> source is within about an eighth of a wavelength from the antenna.
> Beyond that, it actually responds more strongly to the E field relative
> to the H field than a short dipole or many other antennas -- you could
> more properly call it an "E-field antenna" in its response to signals
> beyond about an eighth wavelength. The difference in relative E and H
> field response among all antennas becomes negligible at great distances;
> for antennas which are small in terms of wavelength, the difference
> becomes negligible beyond about a wavelength.
>
> Now, suppose you could make a magic antenna which would respond only to
> the H field of a signal originating at any distance from the antenna
> (which is impossible). What advantage would it have over a real antenna?
> Remember that the E/H ratio of any signal originating very far away is
> 377 ohms, regardless of what kind of antenna or source it came from.
>

> Roy Lewallen, W7EL

There seems to be a number of commercial antennas
described as H-field antennas intended for LORAN
application. Most claim improved immunity to
precipitation static. Is there a theoretical basis
for such claims?

Thanks.

Chuck

----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3578. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 21:07:46 UTC
From: clfe <Nospam@clfurent.com>
Message-ID: <4485eeaa$0$3704$ecde5a14@news.coretel.net>
Source record: 58419
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Yhkhg.18337$VE1.10294@newssvr14.news.prodigy.com...
> clfe wrote:
>> Many of you may have heard of the Quecreek Mine incident in PA some time
>> ago. A pipe was drilled down into the shaft. Those at the surface heard 9
>> taps on it, signifying there were 9 miners there. NOW - if any of those
>> miners KNEW code, they could have gotten a message to the surface as to
>> what conditions were exactly, the extent of injuries as best they could,
>> etc.
>
> Not by tapping. International Morse requires dashes as well
> as taps (dots). There is a tap code used in prisons that will
> accomplish communications under those circumstances. And since
> more people have been in prison than hold an amateur radio
> license, seems that it would make more sense to require knowing
> the tap code than to require knowing International Morse code.
> --
> 73, Cecil http://www.qsl.net/w5dxp

DUH - I KNOW THAT - I was just saying the tapping let the people at the surface know there were 9 people down there. MORSE CODE - "could" have relayed much more info if one of them knew it. REREAD my message.....

I am fully aware of what "code" is, I'm an Extra myself - have been for quite some time. I am also a VE Test Team leader.

clfe

3579. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 21:11:53 UTC
From: w8ji@akorn.net
Message-ID: <1149628313.756125.321140@j55g2000cwa.googlegroups.com>
Source record: 58420

> There seems to be a number of commercial antennas
> described as H-field antennas intended for LORAN
> application. Most claim improved immunity to
> precipitation static. Is there a theoretical basis
> for such claims?

Yes. It increases sales just like zoom zoom zoom in car advertisements.

Seriously, precipitation static is caused by corna discharge from an antenna or object someplace near the antenna. The radiated field from that leakage current can be almost any field impedance and will always be a mixture of time-varying electric and magnetic fields.

What a small loop actually buys you is a compact antenna that has no sharp protruding edges, and that decreases the chances of having corona right from the antenna. A whip would have a sharp protruding point, and that would encourge corona discharge and the resulting noise we call "precipitation static".

Other than that, there is no advantage.

73 Tom

3580. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 22:11:59 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <xJCdnR9TApi2YxjZRVnyhA@bt.com>
Source record: 58421

> Search on H-field antenna. Then click on "Standard H-field NRSC
antenna
> -Chris Scott and Associates. The LP-S series stanard H-field Antenna
is
> specifically designed for emission measurement of AM broadcast
stations
> using a spectrum analyzer or other calibrated receiver.

==

Is this just the usual pseudo-scientific language used by American
antenna salesmen and others?

It all helps to boost sales to the gullible public.

3581. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 22:40:15 UTC
From: LLOYD THE LARDASS LOSER DAVIES <pizzadeliveryboygotfired@LOSER.COM>
Message-ID: <4485f6e7$0$26775$88260bb3@free.teranews.com>
Source record: 58422
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

I'm an inbred alabama hick and I hate CB.

Lloyd Davies N0VFP
Cow Cornholer
Nutsackkk Gobbler
Dumpster Dweller
in Athens, Alabama

<patk1212@gmail.com> wrote in message
news:1149534276.955122.310050@i40g2000cwc.googlegroups.com...
> Alot of people are telling me that CB is just for inbred hicks and that
> I should replace the CB in my truck with a ham radio. What do you
> thjink?
>

--
Posted via a free Usenet account from http://www.teranews.com

3582. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 22:46:28 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <128c1e6mscrqe09@corp.supernews.com>
Source record: 58423

Reg Edwards wrote:
>
> Is this just the usual pseudo-scientific language used by American
> antenna salesmen and others?

Yes. American antenna salesmen haven't yet gotten as sophisticated as the British inventors and purveyors of the CFA. But they're learning. Be patient -- perhaps someday they'll reach that level.

> It all helps to boost sales to the gullible public.

Indeed.

Roy Lewallen, W7EL

3583. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 23:41:36 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <Qoohg.46889$Lm5.10653@newssvr12.news.prodigy.com>
Source record: 58424

Must agree, Duct seal or DUX seal (been a few
years) try Greybar, W.W. Grainger, and other
parts houses- think couple ##s cost around $5-10
and probably last an individual a lifetime
(or take excess to next swap meet, and probably
sell it for about what you paid for it!)
Jim NN7K

John Passaneau wrote:
> I use the Duct seal. It works well, your can get it off when needed and is
> the standard stuff for that sort of work around here in the electrical
> industry.
>
>

3584. Re: Jury-rigged SMA connector

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-06 23:46:42 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <Ctohg.46893$Lm5.24455@newssvr12.news.prodigy.com>
Source record: 58425

At- 13.56 GHZ; Probably, at 13.56 Megs, quite
doubtful !

NathanielColson@gmail.com wrote:
> I'm a UCF student working on an indoor mobile robot positioning system
> based on RFID, and I want to connect the SMA cable of a 13.56MHz
> single-loop antenna to two pins of a straight-pin header on an RFID
> reader.
>
> My question is, will the characteristics of my antenna be shot to
> pieces if I just solder jumpers from the contacts of the coaxial SMA
> cable to the two header pins? Is it going to cause noise, interference,
> etc. to use those two straight wires for a short distance instead of
> the central wire and braided sheath?
>

3585. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 00:49:54 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1149640742_42035@sp6iad.superfeed.net>
Source record: 58276

w8ji@akorn.net wrote:
>> There seems to be a number of commercial antennas
>> described as H-field antennas intended for LORAN
>> application. Most claim improved immunity to
>> precipitation static. Is there a theoretical basis
>> for such claims?
>
>
> Yes. It increases sales just like zoom zoom zoom in car advertisements.
>
> Seriously, precipitation static is caused by corna discharge from an
> antenna or object someplace near the antenna. The radiated field from
> that leakage current can be almost any field impedance and will always
> be a mixture of time-varying electric and magnetic fields.
>
> What a small loop actually buys you is a compact antenna that has no
> sharp protruding edges, and that decreases the chances of having corona
> right from the antenna. A whip would have a sharp protruding point, and
> that would encourge corona discharge and the resulting noise we call
> "precipitation static".
>
> Other than that, there is no advantage.
>
> 73 Tom
>

I think the precipitation static talked about is
caused by the accumulation on the antenna of
charges carried by precipitation particles (e.g.,
snow). Apparently this is a common problem on
aircraft antennas, and hence the interest in LORAN
antennas with better immunity to the accumulation
of precipitation charges.

Doesn't sound like a simple antenna geometry issue
and it doesn't sound like a corona issue.

Which is not to say it isn't all hype, but
wouldn't the charge on the antenna simply
redistribute itself over the body of the aircraft
(assuming it is metal) and not accumulate on the
antenna as it would were the antenna insulated
from the aircraft body?

Chuck

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3586. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 00:57:20 UTC
From: richardharrison@webtv.net
Message-ID: <23774-44862470-817@storefull-3257.bay.webtv.net>
Source record: 58280

K7ITM wrote:
"If you say that in the system (y = mx + b) that b is the response to zero input (x=0) then you will conclude the system is nonlinear."

Why? the factor (b) is a constant, a value to be added to (mx) to total a value for (y).

(mx) is a straight line. Every value of (b) produces a straight lline parallel with lhe line y=mx when b=0. Factor (b) is merely the offset value of the sloped line in the x direction.

y=mx+b is listed in math books as a defining example of a linear equation. (When plotted, a linear equation produces a straight line.) y=mx+b has a special name: "The point slope formula". Perfectly descriptive, too.

To clarify everything, graph a few values for yourself.

Best regards, Richard Harrison, KB5WZI

3587. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 00:58:40 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <448624c0$0$6154$39cecf19@news.twtelecom.net>
Source record: 58277
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Tom Ring wrote:

> patk1212@gmail.com wrote:
>
>> Alot of people are telling me that CB is just for inbred hicks and that
>> I should replace the CB in my truck with a ham radio. What do you
>> thjink?
>>
>
> You should go for your license. The additional privelages are quite
> worthwhile. I will warn you that there are still quite a few inbred
> hicks that got their ham tickets, unfortunately. The good thing is most
> of them seem to be extra class, and are mostly older and will be gone
> soon. It's a leftover effect of requiring Morse ability as opposed to
> operating knowledge.
>
> tom
> K0TAR

Boy it's fun what a little trolling can do to my peers. I'm also an
Extra, and licensed for 29 years.

Code is worth what it can do, but has had less and less to do with the
hobby for decades. It's a great hobby within the hobby on HF, and was
the core of EME for years. It still is to some extent, but advances due
to moving up in frequency as well as computer based modes as low as 6
and 2 meters are making it something used for EME as much for fun and
stubborness as for usefullness. SSB is a very popular mode on EME now
among the big guns.

CW is dead as far as being needed. It's a great thing to have as a
skill, but is now as needed as spark.

The person who said they could key an HT to send CW was stretching it
way beyond reality. Ain't gonna happen, any more than someone will make
a spark transmitter by keying a big bunch of wire they wound in a coil
when trapped in their basement by touching it to the hot side of the
drop in their fusebox.

tom
K0TAR

3588. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 00:59:49 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ll8c8219ckl6avtrj2n4j3c4o4mo55dcl4@4ax.com>
Source record: 58279

On Tue, 06 Jun 2006 20:49:54 -0400, chuck <nospam@nospam.net> wrote:
>I think the precipitation static talked about is
>caused by the accumulation on the antenna of
>charges carried by precipitation particles (e.g.,
>snow).

Hi Chuck,

Snow, rain, dust, soot, anything airborne which in fact is the principle carrier of current from earth to air in the current cycle that feeds the electrostatic potential of lightning clouds (which amounts to about 600 V/m).

>wouldn't the charge on the antenna simply
>redistribute itself over the body of the aircraft
>(assuming it is metal) and not accumulate on the
>antenna as it would were the antenna insulated
>from the aircraft body?

Charge moves to the smallest radius surface, and once there, if there is sufficient flux will break down insulators (air being one) and arc-over (corona discharge). One solution is to reduce the number of small radius surfaces (pin-points) and loops qualify (vastly larger radius than a monopole tip). However, and at altitude, if the loop is in fact a square, then the corners are prone to discharge. HCJB antenna design tested this at altitude in Quito, Ecuador and they solved it by moving the feed point so that the high potential fell in mid-span, instead of at the corners. Auto manufacturers also had to contend with the problem, they put small round caps on the ends of their car antennas.

73's
Richard Clark, KB7QHC

3589. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 01:00:58 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <128c98rs98jef8d@corp.supernews.com>
Source record: 58278

I too buy from electrical supply house. The stuff also makes a perfect
backstop for air-pistol. Comes in one pound blocks. Great stuff.
73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
news:Qoohg.46889$Lm5.10653@newssvr12.news.prodigy.com...
> Must agree, Duct seal or DUX seal (been a few
> years) try Greybar, W.W. Grainger, and other
> parts houses- think couple ##s cost around $5-10
> and probably last an individual a lifetime
> (or take excess to next swap meet, and probably
> sell it for about what you paid for it!)
> Jim NN7K
>
>
> John Passaneau wrote:
> > I use the Duct seal. It works well, your can get it off when needed and
is
> > the standard stuff for that sort of work around here in the electrical
> > industry.
> >
> >

3590. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 01:15:47 UTC
From: clfe <Nospam@clfurent.com>
Message-ID: <448628bb$0$3693$ecde5a14@news.coretel.net>
Source record: 58281
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Tom Ring" <news0002@taring.org> wrote in message
news:448624c0$0$6154$39cecf19@news.twtelecom.net...
> Tom Ring wrote:
>
>> patk1212@gmail.com wrote:
>>
>>> Alot of people are telling me that CB is just for inbred hicks and that
>>> I should replace the CB in my truck with a ham radio. What do you
>>> thjink?
>>>
>>
>> You should go for your license. The additional privelages are quite
>> worthwhile. I will warn you that there are still quite a few inbred
>> hicks that got their ham tickets, unfortunately. The good thing is most
>> of them seem to be extra class, and are mostly older and will be gone
>> soon. It's a leftover effect of requiring Morse ability as opposed to
>> operating knowledge.
>>
>> tom
>> K0TAR
>
> Boy it's fun what a little trolling can do to my peers. I'm also an
> Extra, and licensed for 29 years.
>
> Code is worth what it can do, but has had less and less to do with the
> hobby for decades. It's a great hobby within the hobby on HF, and was the
> core of EME for years. It still is to some extent, but advances due to
> moving up in frequency as well as computer based modes as low as 6 and 2
> meters are making it something used for EME as much for fun and
> stubborness as for usefullness. SSB is a very popular mode on EME now
> among the big guns.
>
> CW is dead as far as being needed. It's a great thing to have as a skill,
> but is now as needed as spark.
>
> The person who said they could key an HT to send CW was stretching it way
> beyond reality. Ain't gonna happen, any more than someone will make a
> spark transmitter by keying a big bunch of wire they wound in a coil when
> trapped in their basement by touching it to the hot side of the drop in
> their fusebox.
>
> tom
> K0TAR

I'm not sure if you're referring to my post or someone else's who I didn't see. In "my" example - I was saying if a MIC was broken and they knew code, they could short out the tranmit pins - like making and breaking contact such as a key would do - to broadcast a coded message. It "can" be done. There is what is/was known as "Modulated CW". And, I've seen guys key an H.T. OR Mic and do code with an "Oscillator" with the other hand - thereby transmitting the code - from the Oscillator speaker through the mic of the H.T or radio. Maybe that is what "they" were referring to - I don't know.

clfe

3591. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 01:22:08 UTC
From: clfe <Nospam@clfurent.com>
Message-ID: <44862a38$0$3707$ecde5a14@news.coretel.net>
Source record: 58282
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

```
"clfe" <Nospam@clfurent.com> wrote in message
news:448628bb$0$3693$ecde5a14@news.coretel.net...
>
> "Tom Ring" <news0002@taring.org> wrote in message
> news:448624c0$0$6154$39cecf19@news.twtelecom.net...
>> Tom Ring wrote:
>>
>>> patk1212@gmail.com wrote:
>>>
>>>> Alot of people are telling me that CB is just for inbred hicks and that
>>>> I should replace the CB in my truck with a ham radio. What do you
>>>> thjink?
>>>>
>>>
>>> You should go for your license. The additional privelages are quite
>>> worthwhile. I will warn you that there are still quite a few inbred
>>> hicks that got their ham tickets, unfortunately. The good thing is most
>>> of them seem to be extra class, and are mostly older and will be gone
>>> soon. It's a leftover effect of requiring Morse ability as opposed to
>>> operating knowledge.
>>>
>>> tom
>>> K0TAR
>>
>> Boy it's fun what a little trolling can do to my peers. I'm also an
>> Extra, and licensed for 29 years.
>>
>> Code is worth what it can do, but has had less and less to do with the
>> hobby for decades. It's a great hobby within the hobby on HF, and was
>> the core of EME for years. It still is to some extent, but advances due
>> to moving up in frequency as well as computer based modes as low as 6 and
>> 2 meters are making it something used for EME as much for fun and
>> stubborness as for usefullness. SSB is a very popular mode on EME now
>> among the big guns.
>>
>> CW is dead as far as being needed. It's a great thing to have as a
>> skill, but is now as needed as spark.
>>
>> The person who said they could key an HT to send CW was stretching it way
>> beyond reality. Ain't gonna happen, any more than someone will make a
>> spark transmitter by keying a big bunch of wire they wound in a coil when
>> trapped in their basement by touching it to the hot side of the drop in
>> their fusebox.
```

>>
>> tom
>> K0TAR
>
> I'm not sure if you're referring to my post or someone else's who I didn't
> see. In "my" example - I was saying if a MIC was broken and they knew
> code, they could short out the tranmit pins - like making and breaking
> contact such as a key would do - to broadcast a coded message. It "can" be
> done. There is what is/was known as "Modulated CW". And, I've seen guys
> key an H.T. OR Mic and do code with an "Oscillator" with the other hand -
> thereby transmitting the code - from the Oscillator speaker through the
> mic of the H.T or radio. Maybe that is what "they" were referring to - I
> don't know.
>
>
> clfe
>

Then too along with the above - they "could" have been referring to using the "key pad" to send code while the H.T. was keyed OR using the keypad on a mic while it was keyed..... If memory serves me correct - at the moment (slips at times) - THAT would be equivalent to MCW (Modulated CW). I've seen that done too.

clfe

3592. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 01:26:27 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <128caq5cknv6vee@corp.supernews.com>
Source record: 58283
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

patk1212@gmail.com wrote:
> Alot of people are telling me that CB is just for inbred hicks and that
> I should replace the CB in my truck with a ham radio. What do you
> thjink?
>
Dont you fall for these dastardly lies. You stay right where you are.
Trust me you do not want to be where we are, in 50 or so years you will
thank us for keeping you in cbland.

Butch

3593. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 01:28:18 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <jZphg.138$gV1.17@fe12.lga>
Source record: 58284

"Roy Lewallen" <w7el@eznec.com> wrote
>
> Very close to a small loop antenna, response is greater to an H field than
> E field. It does respond to both, however, as all antennas must. As you
> get farther away from the antenna, the response to the H field decreases
> in relation to the E field response. At around an eighth wavelength
> distance from the antenna, the response to E and H fields are about the
> same as for a distant source. Beyond about an eighth wavelength, the
> response to the H field is actually *less* than the response to an E field
> compared to a source at a great distance. The ratio of E to H field
> responses then decreases to the distant value as you get farther from the
> antenna.
>
> In summary, the antenna responds more strongly to the H field if the
> source is within about an eighth of a wavelength from the antenna. Beyond
> that, it actually responds more strongly to the E field relative to the H
> field than a short dipole or many other antennas -- you could more
> properly call it an "E-field antenna" in its response to signals beyond
> about an eighth wavelength. The difference in relative E and H field
> response among all antennas becomes negligible at great distances; for
> antennas which are small in terms of wavelength, the difference becomes
> negligible beyond about a wavelength.
>

But according to W8JI "teachings" there is no way that electrostatic shield
on a small loop antenna would work as a shield, attenuating E field dominant
signals or noise generated within that 1/8 or about wavelength.
According to him, it works as an antenna. Some scientwists can not
comprehend that electrostatic shield shunts the predominantly E field
generated in the vicinity. It is the FACT, easily observable by anyone
building shielded small loop and having TV birdies, PS bricks or arcing
noise source within about 1/8 of a wavelength.

W8JI wrote:
>>Seriously, precipitation static is caused by corna discharge from an
antenna or object someplace near the antenna. The radiated field from
that leakage current can be almost any field impedance and will always
be a mixture of time-varying electric and magnetic fields.<<

Roy, 'splain to him about this 1/8 or so thing. He still dungetit.

73 Yuri, K3BU

3594. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 01:47:40 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1149644860.795112.176930@h76g2000cwa.googlegroups.com>
Source record: 58285
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Cecil Moore wrote:
> J. D. B. wrote:
> > That is a very good point that I never considered. In thinking about it,
> > it makes perfect sense. "Mode Welfare" - too funny.
>
> You could also consider the written exams to be technical
> knowledge welfare and rules and regulations welfare.
wellthe rules question do show you have a passing knowledge of the
rules but the rest I will buy
> --
> 73, Cecil http://www.qsl.net/w5dxp
```

3595. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 01:59:11 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <128ccnil05e0744@corp.supernews.com>
Source record: 58286

Yuri Blanarovich wrote:
> . . .
> Roy, 'splain to him about this 1/8 or so thing. He still dungetit.

Tom understands it, but I see you don't quite have a handle on it yet.

Roy Lewallen, W7EL

3596. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 03:30:30 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qLrhg.39959$4L1.32138@newssvr11.news.prodigy.com>
Source record: 58287
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

clfe wrote:
> DUH - I KNOW THAT - I was just saying the tapping let the people at the
> surface know there were 9 people down there. MORSE CODE - "could" have
> relayed much more info if one of them knew it. REREAD my message.......

How do you send a 'dash' by tapping on a pipe? You
apparently could revolutionize prison communications
by providing an answer to that simple question.
--
73, Cecil http://www.qsl.net/w5dxp

3597. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 03:36:46 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <iRrhg.28445$QP4.6566@fed1read12>
Source record: 58288
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

"Chris W" <1qazse4@cox.net> wrote in message
news:fy7hg.52579$9c6.12825@dukeread11...
> Can anyone tell me what the official name of the putty they use to seal
> the holes you run your coax through so bugs don't crawl in the wall or
> water doesn't get in? I like to get all my hardware type items from
> mcmaster.com. I'm sure they have it, if I just know what it is called I
> can find it on their website.

I was thinking "electrician's putty" or similar -- what we used to call
"monkey shit" in the Navy, but I couldn't get a good match on Google for
those terms. While mulling this over, I remembered also Plumbers Putty.
While generally not used for coax, I have used it under sinks and in the
garage for sealing around pipe penetrations. What I have is light tan in
color. It stays soft and flexible (but I don't know what sunlight does to
it or whether it will take paint). It's cheap and available and might be
just what you need.

3598. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 03:38:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zSrhg.39964$4L1.12854@newssvr11.news.prodigy.com>
Source record: 58289

Richard Harrison wrote:
> (mx) is a straight line. Every value of (b) produces a straight lline
> parallel with lhe line y=mx when b=0. Factor (b) is merely the offset
> value of the sloped line in the x direction.

Why must superposition preserve 'b' (as someone has
asserted?)
--
73, Cecil http://www.qsl.net/w5dxp

3599. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 03:41:05 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <lVrhg.39966$4L1.15046@newssvr11.news.prodigy.com>
Source record: 58290
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

clfe wrote:
> I'm not sure if you're referring to my post or someone else's who I didn't
> see. In "my" example - I was saying if a MIC was broken and they knew code,
> they could short out the tranmit pins - like making and breaking contact
> such as a key would do - to broadcast a coded message. It "can" be done.

Please tell us when, in human history, it has ever been done.
--
73, Cecil http://www.qsl.net/w5dxp

3600. Re: Grounding a metal roof

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 03:54:08 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <B5shg.28447$QP4.12852@fed1read12>
Source record: 58291

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e64jaqmml1@avnika.corp.mot.com...

< snip >

> Do you know about the web site?
> http://www.usncva.org/
> didn't see any recognizable names there.
>
> 73, Steve, K9DCI

I remember the typewriter shop at the receiver building. First door on the
right, inside the front door. I never worked there, but I often fetched a
shelf spare for an operator.

I know about the NCVA, but I've never been to the website. Going now. TKS

73
John
KD6VKW

3601. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 04:18:18 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4486538A.5070005@fuse.net>
Source record: 58292
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Cecil Moore wrote:
> clfe wrote:
>
>> Many of you may have heard of the Quecreek Mine incident in PA some
>> time ago. A pipe was drilled down into the shaft. Those at the surface
>> heard 9 taps on it, signifying there were 9 miners there. NOW - if any
>> of those miners KNEW code, they could have gotten a message to the
>> surface as to what conditions were exactly, the extent of injuries as
>> best they could, etc.
>
>
> Not by tapping. International Morse requires dashes as well
> as taps (dots). There is a tap code used in prisons that will
> accomplish communications under those circumstances. And since
> more people have been in prison than hold an amateur radio
> license, seems that it would make more sense to require knowing
> the tap code than to require knowing International Morse code.
I seem to remember that the original Morse code was all clicks. I think the telegraph lines were DC current to electromagnetic clicking "receivers". The dashes were sort of implied by the spacing of the clicks...not that it matters to the antenna group, I guess.

The only thing good about the prison system of taps mentioned earlier in the group is that if you know the grid, you know the "code". Extremely inefficient, however.

Long live di-dah

3602. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 04:22:54 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4486549E.7000802@fuse.net>
Source record: 58293
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Cecil Moore wrote:

>
>
> Please tell us when, in human history, it has ever been done.

Yes. It was an episode of the old Adam-12 TV series. Patrolman was injured in a crashed cruiser. Mic out. but he could click the mic button...the guy on the other end directed him to "click once if you hear me and twice if you don't"

Classic television: you had to be there.

3603. Re: FS: High Quality Coax Connectors & Adapters at very low prices

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 04:24:01 UTC
From: Larry <noone@home.com>
Message-ID: <Xns97DB41F364A4noonehomecom@208.49.80.253>
Source record: 58294
Cross-posted to:
misc.industry.electronics.marketplace,rec.boats.electronics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors

The spam is getting worse!

"AAA RF Products" <sales@aaarfproducts.com> wrote in
news:%fihg.6120$rS6.5893@fed1read11:

> Path:
> be01!atl-c01.usenetserver.com!news.usenetserver.com!border1.nntp.dca.gi
> ganews.com!nntp.giganews.com!nx01.iad01.newshosting.com!newshosting.com
> !68.1.17.232.MISMATCH!peer01.cox.net!cox.net!p01!fed1read11.POSTED!53ab
> 2750!not-for-mail From: "AAA RF Products" <sales@aaarfproducts.com>
> Newsgroups:
> misc.industry.electronics.marketplace,rec.boats.electronics,rec.radio.a
> mateur.antenna,rec.radio.amateur.boatanchors Subject: FS: High Quality
> Coax Connectors & Adapters at very low prices Lines: 4
> X-Priority: 3
> X-MSMail-Priority: Normal
> X-Newsreader: Microsoft Outlook Express 6.00.2900.2869
> X-MimeOLE: Produced By Microsoft MimeOLE V6.00.2900.2869
> X-RFC2646: Format=Flowed; Original
> Message-ID: <%fihg.6120$rS6.5893@fed1read11>
> Date: Tue, 6 Jun 2006 09:42:39 -0700
> NNTP-Posting-Host: 64.58.167.76
> X-Complaints-To: abuse@cox.net
> X-Trace: fed1read11 1149612155 64.58.167.76 (Tue, 06 Jun 2006 12:42:35
> EDT) NNTP-Posting-Date: Tue, 06 Jun 2006 12:42:35 EDT
> Organization: Cox Communications
> Xref: usenetserver.com misc.industry.electronics.marketplace:126894
> rec.boats.electronics:160705 rec.radio.amateur.antenna:326563
> rec.radio.amateur.boatanchors:215022 X-Received-Date: Tue, 06 Jun 2006
> 12:42:35 EDT (be01)
>
> Please email sales@aaarfproducts.com or call 949 481 3154 (San
> Clemente, CA, USA) for a copy of our latest catalog.
>
>
>

3604. Re: Jury-rigged SMA connector

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 04:32:15 UTC
From: NathanielColson@gmail.com
Message-ID: <1149654735.637286.50620@y43g2000cwc.googlegroups.com>
Source record: 58295

Thank you!

n3ox.dan@gmail.com wrote:
> No it won't be a problem. You just need to keep such leads short with
> respect to a wavelength at the frequency of operation, and, well,
> 13.56MHz is around 20m wavelength, so you won't have a problem with a
> couple centimeters of wire.
>
> Personally, as a matter of style, I'd probably solder a mating SMA
> connector directly to the header using the shortest possible wires and
> then add some hot glue or epoxy to mechanically stabilize the connector
> to the header, but that's just me :-) It makes it easy to add more
> cable later if you need.
>
> You could also cut the SMA off the cable and solder the coax center
> conductor and braid to the two header pins. I feel like it's probably
> pretty easy to short out an SMA with solder blobs.
>
> Dan
> N3OX
> www.n3ox.net
>
>
> NathanielColson@gmail.com wrote:
> > I'm a UCF student working on an indoor mobile robot positioning system
> > based on RFID, and I want to connect the SMA cable of a 13.56MHz
> > single-loop antenna to two pins of a straight-pin header on an RFID
> > reader.
> >
> > My question is, will the characteristics of my antenna be shot to
> > pieces if I just solder jumpers from the contacts of the coaxial SMA
> > cable to the two header pins? Is it going to cause noise, interference,
> > etc. to use those two straight wires for a short distance instead of
> > the central wire and braided sheath?
> >
> > antenna:
> > http://www.ti.com/rfid/docs/manuals/pdfSpecs/RI-ANT-T01AdataSheet.pdf
> > reader:
> > http://www.ti.com/rfid/docs/manuals/refmanuals/RI-STU-TRDCrefGuide.pdf
> >
> > Thanks!
> > Nathaniel

3605. End-fed wire question.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 04:34:26 UTC
From: blair thompson <blairt@abcomm.ca>
Message-ID: <0ukc82prneu4c8u1pdnpe132g06353kvk2@4ax.com>
Source record: 58296

I have a 63 ft. end-fed wire antenna which I am using with an MFJ-949 versa tuner, and 4 counterpoises cut for 1/4 wave on 15,20, 30 and 40 meters. Far end not very high, about 25 feet up a tree, shot up there with a slingshot. Pretty thick foliage right now, but not a lot of the wire is showing and in the clear as the near end of the wire slopes down almost to ground level (townhome QTH).

Bit of an underperformer, and I was wondering whether it would be worth my while to install a ground rod in order to ground the tuner, and whether that might improve matters a bit,

Thanks for any information.
Blair VA7NA

3606. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 04:36:52 UTC
From: kd5sak <kd5sak@sbcglobal.net>
Message-ID: <EJshg.40736$fb2.8847@newssvr27.news.prodigy.net>
Source record: 58297
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:qLrhg.39959$4L1.32138@newssvr11.news.prodigy.com...
> clfe wrote:
> How do you send a 'dash' by tapping on a pipe? You
> apparently could revolutionize prison communications
> by providing an answer to that simple question.
> --
> 73, Cecil http://www.qsl.net/w5dxp

How about a fast double tap on the pipe (or bar) to signify a "dash"? It's not an elegant solution, but could be made to work. Those guys are probably not gonna try for 30 characters per minute anyway.

Harold
KD5SAK

3607. Re: End-fed wire question.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 05:48:39 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <_MqdnV8xku6s9BvZRVnyiw@bt.com>
Source record: 58298

"blair thompson" wrote
> I have a 63 ft. end-fed wire antenna which I am using with an
MFJ-949
> versa tuner, and 4 counterpoises cut for 1/4 wave on 15,20, 30 and
40
> meters. Far end not very high, about 25 feet up a tree, shot up
there
> with a slingshot. Pretty thick foliage right now, but not a lot of
the
> wire is showing and in the clear as the near end of the wire slopes
> down almost to ground level (townhome QTH).
>
> Bit of an underperformer, and I was wondering whether it would be
> worth my while to install a ground rod in order to ground the tuner,
> and whether that might improve matters a bit,
>
==========
Blair,
A single ground rod will be virtually useless - that is unless it can be driven into salt sea water.

If the radials are elevated above ground, then some improvement may be achieved by allowing them to rest at ground level. This will increase the effective height of the antenna.

Better still, shallow-bury them.

Even better, add more radials. Extra radials, on or underground, need not be very long and not of any particular length. The more there are up to a dozen or so, the merrier.

Important - try to get the near end of the wire as high as you can in the air. Get some vertical wire into it. Can the near end be taken up the side of the house and suspended from a chimney, TV antenna or rain gutter or something? This will definitely make a noticeable improvement.

Reg.

3608. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 06:09:21 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <J_GdncuBs7-c8xvZnZ2dnUVZ8s-dnZ2d@bt.com>
Source record: 58299

Precipitation static, eg., from highly charged raindrops and fine snow
or fine sand, impinging on the antenna wire, just causes an increase
in receiver white noise level. It can be reduced but not removed by
using a very thickly insulated antenna wire, like the inner conductor
of a coaxial cable complete with its polyethylene jacket.

Reg.

3609. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 06:48:32 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <CIydnYr6UbGs6hvZRVny3w@bt.com>
Source record: 58300

The only useful purpose served by making a loop antenna from coaxial cable is to ensure capacitance balance of the loop against ground, so sharpening its directional nulls and, incidentally of course, to support the very thin inner conductor which would otherwise collapse under its own weight.

The outer coaxial conductor has no effect on signal to noise ratio as perceived by the receiver. S/N ratio depends only on what's contained in the local field itself.

If there's any difference in S/N ratio due to use of a tuned loop, as with a magloop, then it is due to the loop's very narrow bandwidth - not the shield.

Reg.

3610. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 10:10:56 UTC
From: w8ji@akorn.net
Message-ID: <1149675056.576658.92120@c74g2000cwc.googlegroups.com>
Source record: 58301

Reg Edwards wrote:
> Precipitation static, eg., from highly charged raindrops and fine snow
> or fine sand, impinging on the antenna wire, just causes an increase
> in receiver white noise level. It can be reduced but not removed by
> using a very thickly insulated antenna wire, like the inner conductor
> of a coaxial cable complete with its polyethylene jacket.
> ----
> Reg.

I've never seen a case of precitation static occuring that way.

In every single case I've seen, whether on tall buildings, tall towers, or antenna hear earth, it has always been corona discharges from the antenna or objects near the antenna.

How do I know this?

1.) I had side by side "insulated" and "unisulated" Beverage antenna wires that are otherwide identical except for being spaced a few dozen feet apart, and the antebnna pointed towards my tall towers had precip static and the others did not. Both were equal in noise despite the fact they are hit by the same rain or dust.

2.) I have Yagis on towers that are identical, and the LOWER antenna almost never has precipitation static despite the fact they are hit by the same rain or dust.

3.) I've had dipoles at various heights, and the lower dipole always has much less precipitation staic than the high dipole despite the fact they get the same rain or dust.

4.) The period of the noise has nothing at all to do with the number of droplets hitting the antenna. It increases in pitch as the charge gradient between earth and clouds builds, then when lightning flashes it immediatly stops without time delay.

5.) On tall buildings on dark nights in storms, we could actually hear the same pitch noise as the repeaters rebroadcast, and walk to the noise source and actually see the corona.

6.) Antennas in fiberglass radomes were no quieter than bare metal dipoles on tall buildings.

7.) I even used an electrostatic sprayer to charge droplets and hit an antenna, and could only simulate noise when the antenna element had a sharp point and I got near the sharp point...at which time I could see faint corona.

73 Tom

3611. Re: End-fed wire question.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 10:24:29 UTC
From: BKR <REMOVESPAMrchvid7@lycos.comFilter>
Message-ID: <4486a95f@nntp.zianet.com>
Source record: 58302

blair thompson wrote:
> I have a 63 ft. end-fed wire antenna which I am using with an MFJ-949
> versa tuner, and 4 counterpoises cut for 1/4 wave on 15,20, 30 and 40
> meters. Far end not very high, about 25 feet up a tree, shot up there
> with a slingshot. Pretty thick foliage right now, but not a lot of the
> wire is showing and in the clear as the near end of the wire slopes
> down almost to ground level (townhome QTH).
>
> Bit of an underperformer, and I was wondering whether it would be
> worth my while to install a ground rod in order to ground the tuner,
> and whether that might improve matters a bit,
>
> Thanks for any information.
> Blair VA7NA

End fed wires must always be used against an efficient ground system consisting of a large number of radials or a tuned counterpoise for each frequency.

A single ground rod is normally fairly poor.

3612. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 11:43:44 UTC
From: wood@itd.nrl.navy.mil
Message-ID: <wood-0706060744000001@jbw-mac.itd.nrl.navy.mil>
Source record: 58303

In article <128c1e6mscrqe09@corp.supernews.com>, Roy Lewallen
<w7el@eznec.com> wrote:

> Yes. American antenna salesmen haven't yet gotten as sophisticated as
> the British inventors and purveyors of the CFA. But they're learning. Be
> patient -- perhaps someday they'll reach that level.
>

The CFA proponents weren't sophisticated at all. The "inventors" probably
read half of chapter one of an undergraduate electromagnetics textbook but
forgot to read/understand the rest. Another source of embarrassment was
that one of the CFA backers was a university EE professor. Go figure.
Extraordinary claims but no extraordinary proof. BTW, in case you're
interested, the British/Egyptian inventors' U.S. patent number is
5155495. It's patented so it must work... 73s from N4GGO,

John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375-5337

3613. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 12:21:18 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <128dh45bejvrd5d@corp.supernews.com>
Source record: 58304

Dear Tom:
Your message may one of the most interesting and unexpected that I have read in a long time. Some comments follow. Please note my extreme reluctance to engage in anything but a calm exchange of experiences and opinions. I have no interest in provoking you.

Your experience does not seem to agree with experience at remote, flat, treeless sites here in Michigan. Please note the qualifiers in the last sentence. Especially in the UP of Michigan, at certain times of the year, P-noise is the major factor in limiting radio use.

P-noise is not found on an antenna imbedded in a clump of trees when an antenna out in the open (many wavelengths from the first antenna) has P-noise. The follow-on is that since most sites are urban or suburban, few radio amateurs will experience P-noise.

P-noise is observed when there is no rain nor thunderstorms, but plenty of wind. This is suggestive of moving charge discharging into the antenna. Of course, one could define this action as being "corona." Of course, if one places enough charge on a piece of metal eventually there will be "corona." Many antennas have a conductive path to earth that makes such an accumulation of charge unlikely.

There is no doubt that an antenna experiencing P-noise will radiate and thus noise will be received by nearby antennas. That is why successful receiving antennas here in the flatland are placed a long distance from metallic objects.

Most people have never heard P-noise because their site precludes same.

A paper published in August about 1961 (IEEE Vehicular Transactions) is one of the few references that has been published that deals with means for reducing P-noise. The article involved a fixed, not mobile, antenna. It appears that additional work has not been published that deals significantly with fixed antennas. (Lots of papers exist dealing with aircraft antennas.)

Your #6 is interesting. Unfortunately, there is so much radiation from what else is on a tall building that it is difficult to sort out where excess noise is coming from. An antenna inside of a slightly conductive radome that is placed a long distance from anything that could radiate might be different.

Your #7 is especially interesting. Our EMC group has on the drawing board just such experimentation. We will be on the lookout for "end effects." Your note is a valuable observation.

Regards, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
<w8ji@akorn.net> wrote in message
news:1149675056.576658.92120@c74g2000cwc.googlegroups.com...
>
> Reg Edwards wrote:
> > Precipitation static, eg., from highly charged raindrops and fine snow
> > or fine sand, impinging on the antenna wire, just causes an increase
> > in receiver white noise level. It can be reduced but not removed by
> > using a very thickly insulated antenna wire, like the inner conductor
> > of a coaxial cable complete with its polyethylene jacket.
> > ----
> > Reg.
>
> I've never seen a case of precitation static occuring that way.
>
> In every single case I've seen, whether on tall buildings, tall towers,
> or antenna hear earth, it has always been corona discharges from the
> antenna or objects near the antenna.
>
> How do I know this?
>
> 1.) I had side by side "insulated" and "unisulated" Beverage antenna
> wires that are otherwide identical except for being spaced a few dozen
> feet apart, and the antebnna pointed towards my tall towers had precip
> static and the others did not. Both were equal in noise despite the
> fact they are hit by the same rain or dust.
>
> 2.) I have Yagis on towers that are identical, and the LOWER antenna
> almost never has precipitation static despite the fact they are hit by
> the same rain or dust.
>
> 3.) I've had dipoles at various heights, and the lower dipole always
> has much less precipitation staic than the high dipole despite the fact
> they get the same rain or dust.
>
> 4.) The period of the noise has nothing at all to do with the number of
> droplets hitting the antenna. It increases in pitch as the charge
> gradient between earth and clouds builds, then when lightning flashes
> it immediatly stops without time delay.
>
> 5.) On tall buildings on dark nights in storms, we could actually hear
> the same pitch noise as the repeaters rebroadcast, and walk to the
> noise source and actually see the corona.
>
> 6.) Antennas in fiberglass radomes were no quieter than bare metal
> dipoles on tall buildings.
>
> 7.) I even used an electrostatic sprayer to charge droplets and hit an
> antenna, and could only simulate noise when the antenna element had a

> sharp point and I got near the sharp point...at which time I could see
> faint corona.
>
> 73 Tom
>

3614. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 12:29:07 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <1OmdnWyp3u6WWhvZRVnyhw@bt.com>
Source record: 58305

<w8ji@akorn.net> wrote in message
news:1149675056.576658.92120@c74g2000cwc.googlegroups.com...
>
> Reg Edwards wrote:
> > Precipitation static, eg., from highly charged raindrops and fine
snow
> > or fine sand, impinging on the antenna wire, just causes an
increase
> > in receiver white noise level. It can be reduced but not removed
by
> > using a very thickly insulated antenna wire, like the inner
conductor
> > of a coaxial cable complete with its polyethylene jacket.
> > ----
> > Reg.
>
> I've never seen a case of precitation static occuring that way.
>
> In every single case I've seen, whether on tall buildings, tall
towers,
> or antenna hear earth, it has always been corona discharges from the
> antenna or objects near the antenna.
>
> How do I know this?
>
> 1.) I had side by side "insulated" and "unisulated" Beverage antenna
> wires that are otherwide identical except for being spaced a few
dozen
> feet apart, and the antebnna pointed towards my tall towers had
precip
> static and the others did not. Both were equal in noise despite the
> fact they are hit by the same rain or dust.
>
> 2.) I have Yagis on towers that are identical, and the LOWER antenna
> almost never has precipitation static despite the fact they are hit
by
> the same rain or dust.
>
> 3.) I've had dipoles at various heights, and the lower dipole always
> has much less precipitation staic than the high dipole despite the
fact
> they get the same rain or dust.
>
> 4.) The period of the noise has nothing at all to do with the number

of
> droplets hitting the antenna. It increases in pitch as the charge
> gradient between earth and clouds builds, then when lightning
flashes
> it immediatly stops without time delay.
>
> 5.) On tall buildings on dark nights in storms, we could actually
hear
> the same pitch noise as the repeaters rebroadcast, and walk to the
> noise source and actually see the corona.
>
> 6.) Antennas in fiberglass radomes were no quieter than bare metal
> dipoles on tall buildings.
>
> 7.) I even used an electrostatic sprayer to charge droplets and hit
an
> antenna, and could only simulate noise when the antenna element had
a
> sharp point and I got near the sharp point...at which time I could
see
> faint corona.
==========
Tom,

The description "precipitate" clearly applies to what is being precipitated onto the antenna, eg., rain drops, hail-stones, snow particles, sand particles in a sandstorm, etc.

When charged to a high potential, on impinging on the antenna wire, the charge on a particle is suddenly released causing a click in the headphones. A very rapid succession of small random clicks constitutes white noise.

I, and everybody else in the uK, have experienced rain static dozens of times, sometimes 10 or 20 dB above S9 on the S-meter. At the start of a rain storm and when nearing its end, individual clicks can be heard. As expected, when the clouds are most highly charged, the noise is most intense when there is thunder about. It can amount to a roar. It is loudest on the lower HF bands and at MF but that may be due to the physically larger antennas.

What you have been suffering from is not precipitation or rain static. You should give it a different name. If you have never experienced rain static, perhaps you disconnect your antenna when a thunder storm storm is approaching and before it starts to rain.

Reg.

3615. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 12:42:55 UTC
From: Not Cocksucker Lloyd <not_time_turd_lloyd@yahoo.com>
Message-ID: <1149684175.500749.17370@f6g2000cwb.googlegroups.com>
Source record: 58306
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

assraped by an old freind wrote:
> J. D. B. wrote:
> > That is a very good point that I never considered. In thinking about it,
> > it makes perfect sense. "Mode Welfare" - too funny.
> well thank you for making my day Sir
>
> although the phrase isn't mine it cames from the regulars here on RRAp
> from back in 1990's

It figures you'd have to plagiarize it, Markie. Dumbass!

> > JDB
> >
> > an old friend wrote:
> > >
> > > the concern is obvious for decades the CW crowd has relied on the
> > > requirement to force all ham to at try it. mode welfare. they are afaid
> > > without that stick the mode will die . it show a lack ocnvednce in the
> > > mode
> > >

3616. Quad feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 13:44:55 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <rLAhg.37812$4H.1690@dukeread03>
Source record: 58307

I just built a 3el 6m quad. Should I put a choke or balun
at the feedpoint? What type?

--
73's de Ken KG0WX - Kadiddlehopper #11808,
Flying Pigs #-1055, Grid EM17io, FT-857D, AL-84,
Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B

3617. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 13:45:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <YLAhg.18629$VE1.4506@newssvr14.news.prodigy.com>
Source record: 58308

w8ji@akorn.net wrote:
> Reg Edwards wrote:
>> Precipitation static, eg., from highly charged raindrops and fine snow
>> or fine sand, impinging on the antenna wire, just causes an increase
>> in receiver white noise level. It can be reduced but not removed by
>> using a very thickly insulated antenna wire, like the inner conductor
>> of a coaxial cable complete with its polyethylene jacket.
>
> I've never seen a case of precitation static occuring that way.

I experienced that kind of static in Arizona with wind, extremely
low humidity, and bare wire. I've never experienced it in East
Texas.
--
73, Cecil http://www.qsl.net/w5dxp

3618. Re: Caught Sending Morse (was Give up CB for ham?)

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 13:49:47 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <_PAhg.178634$bm6.159481@fed1read04>
Source record: 58310
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

During long boring meetings at an Aerospace company, my buddy and I would send Morse by pencil taps, sharp tap was a dit and a tap-scrape was a dah. Worked well until a new manager gave his fist talk assuring us nothing would change - we tapped out BS.

After the meeting, the new manager asked my buddy and I to stay for a moment after the meeting,

With a smile, he sed Hi guys -- I'm W⌿XYZ

Real call sign disguised to protect the guilty (;-)

--
CL -- I doubt, therefore I might be !

"kd5sak" <kd5sak@sbcglobal.net> wrote in message
news:EJshg.40736$fb2.8847@newssvr27.news.prodigy.net...
>
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:qLrhg.39959$4L1.32138@newssvr11.news.prodigy.com...
>> clfe wrote:
>> How do you send a 'dash' by tapping on a pipe? You
>> apparently could revolutionize prison communications
>> by providing an answer to that simple question.
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
> How about a fast double tap on the pipe (or bar) to signify a "dash"? It's
> not an elegant solution, but could be made to work. Those guys are
> probably not gonna try for 30 characters per minute anyway.
>
> Harold
> KD5SAK
>

3619. Re: End-fed wire question.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 13:53:31 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1149687760_46747@sp6iad.superfeed.net>
Source record: 58309

Reg Edwards wrote:
> "blair thompson" wrote
>> I have a 63 ft. end-fed wire antenna which I am using with an
> MFJ-949
>> versa tuner, and 4 counterpoises cut for 1/4 wave on 15,20, 30 and
> 40
>> meters. Far end not very high, about 25 feet up a tree, shot up
> there
>> with a slingshot. Pretty thick foliage right now, but not a lot of
> the
>> wire is showing and in the clear as the near end of the wire slopes
>> down almost to ground level (townhome QTH).
>>
>> Bit of an underperformer, and I was wondering whether it would be
>> worth my while to install a ground rod in order to ground the tuner,
>> and whether that might improve matters a bit,
>>
> ================================
> Blair,
> A single ground rod will be virtually useless - that is unless it can
> be driven into salt sea water.
>

In which case, it will be practically perfect! Not
much gray area for ground rods in this
Zoroasterian space. ;-)

Well, as far as ground rods are concerned, it
would be practically perfect, but your antenna as
is would still not be.

> If the radials are elevated above ground, then some improvement may be
> achieved by allowing them to rest at ground level. This will increase
> the effective height of the antenna.
>
> Better still, shallow-bury them.
>
> Even better, add more radials. Extra radials, on or underground, need
> not be very long and not of any particular length. The more there are
> up to a dozen or so, the merrier.
>

If the antenna is roughly a half-wave on 40
meters, mostly horizontal, I doubt that more
radials will help much.

> Important - try to get the near end of the wire as high as you can in
> the air. Get some vertical wire into it. Can the near end be taken up
> the side of the house and suspended from a chimney, TV antenna or rain
> gutter or something? This will definitely make a noticeable
> improvement.
> ----
> Reg.
>
>

If you are seeking more low-angle radiation for
DX, then this will help and you may see more
benefit from additional radials. You might
consider attaching the guy to the chimney, etc.,
and running the "vertical" wire from the tuner up
and away from the house. You don't want that
vertical wire running right alongside the chimney
or TV antenna support.

Chuck

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3620. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 14:03:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <p0Bhg.18634$VE1.9119@newssvr14.news.prodigy.com>
Source record: 58311
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

jawod wrote:
> I seem to remember that the original Morse code was all clicks.

Wasn't there a strong click when the receiver circuit
closed and a different weak click when the circuit
opened? The length of time between those two types of
clicks was either a dot or a dash?
--
73, Cecil http://www.qsl.net/w5dxp

3621. Re: Quad feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 14:04:15 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <B-SdnfZGh4DUQBvZnZ2dnUVZ8sydnZ2d@bt.com>
Source record: 58312

```
> I just built a 3el 6m quad. Should I put a choke or balun
> at the feedpoint? What type?
>
====================================

Only if it doesn't work without it.
```

3622. Re: Quad feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 14:13:15 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <%9Bhg.18638$VE1.7055@newssvr14.news.prodigy.com>
Source record: 58313

Ken Bessler wrote:
> I just built a 3el 6m quad. Should I put a choke or balun
> at the feedpoint? What type?

How about ~5 feet of wire? From an earlier posting:

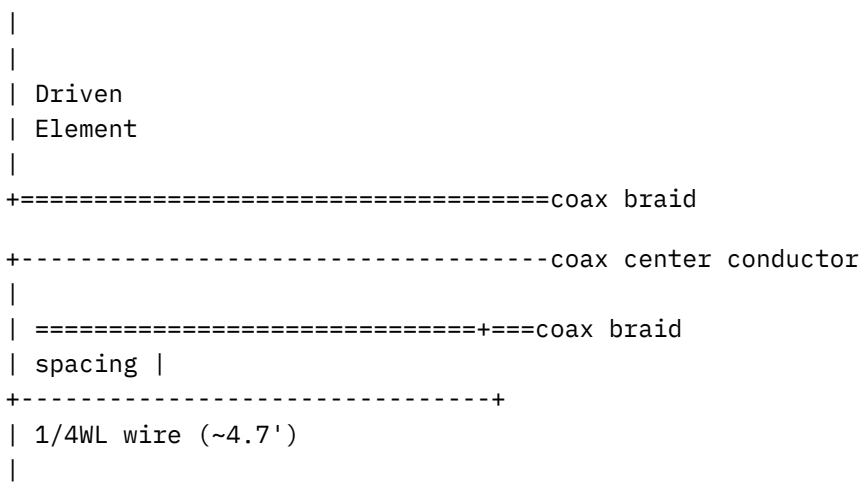
--
73, Cecil http://www.qsl.net/w5dxp

3623. Re: Quad feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 14:19:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <8gBhg.18641$VE1.11065@newssvr14.news.prodigy.com>
Source record: 58314

Ken Bessler wrote:
> I just built a 3el 6m quad. Should I put a choke or balun
> at the feedpoint? What type?

A few turns of coax will do the trick for 6m.
How about this solution from an earlier posting?



--
73, Cecil http://www.qsl.net/w5dxp

3624. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 14:21:42 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <PZqdnYF_UO5ofRvZnZ2dnUVZ_tOdnZ2d@comcast.com>
Source record: 58315
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

'tap' for dot.

'scratch' for dash.

Cecil Moore wrote:

> clfe wrote:
>
>> DUH - I KNOW THAT - I was just saying the tapping let the people at
>> the surface know there were 9 people down there. MORSE CODE - "could"
>> have relayed much more info if one of them knew it. REREAD my
>> message.......
>
>
> How do you send a 'dash' by tapping on a pipe? You
> apparently could revolutionize prison communications
> by providing an answer to that simple question.

3625. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 14:33:24 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <TsBhg.178639$bm6.117054@fed1read04>
Source record: 58316
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

The first Morse machines scribed the dots and dashes on a moving strip of paper. Operators of the day found that they could decode the sound of the scriber by ear, so the scribing machines were scrapped.

http://www.maxmon.com/1880ad.htm

--
CL -- I doubt, therefore I might be !

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:p0Bhg.18634$VE1.9119@newssvr14.news.prodigy.com...
> jawod wrote:
>> I seem to remember that the original Morse code was all clicks.
>
> Wasn't there a strong click when the receiver circuit
> closed and a different weak click when the circuit
> opened? The length of time between those two types of
> clicks was either a dot or a dash?
> --
> 73, Cecil http://www.qsl.net/w5dxp

3626. Re: FIGHT! FIGHT! FIGHT!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 14:53:32 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1149692012.331696.87950@g10g2000cwb.googlegroups.com>
Source record: 58317

Richard Harrison wrote:
> K7ITM wrote:
> "If you say that in the system (y = mx + b) that b is the response to
> zero input (x=0) then you will conclude the system is nonlinear."
>
> Why? the factor (b) is a constant, a value to be added to (mx) to total
> a value for (y).
>

Because, from 3.3, 'Network Theorems,' in "The Electrical Engineering Handbook,"
Ed. Richard C. Dorf, Boca Raton: CRC Press LLC, 2000 (you can find it online),

"The superposition condition: If the input to the system, e1, causes a response, r1, and if an input to the system, e2, causes a response, r2, then a response, r1 + r2, will occur when the input is e1 + e2."

If you take the response to x0=0 to be b, then the response to, say, x1=1 must be m+b, and to x2=2 must be 2*m+b. Then for superposition, and therefore for linearity, the response to (x1+x2)=3 must be m+b+2*m+b = 3*m+2*b, which it is not: it is 3*m+b. I do not suggest a change in the definition of superposition or of homogeneity (which seems to be simply a subset of superpostion anyway) or of linearity. I only suggest that "response" be interpreted as the change in output which occurs when you go from input a to input b. I've generally not seen "response" to be very well defined in those texts which define linearity, though it's quite possible I've missed it. In the PDF file for all of Chapter 3 of the book quoted above, it is certainly not.

I guess I'd prefer, basically, to say that the following relationship defines a linear system (MIMO even) -- but it is NOT sufficient to describe all linear systems:

dx/dt = Ax + Bu
y = Cx + Du
where u is a vector of independent input variables, y is a vector of dependent output variables, x represents state variables for the system, and A, B, C and C are matrices of coefficients which are constant in a time-invariant system, but which may be variable with time in a system which is time variant.

Cheers,
Tom

> (mx) is a straight line. Every value of (b) produces a straight lline
> parallel with lhe line y=mx when b=0. Factor (b) is merely the offset
> value of the sloped line in the x direction.
>
> y=mx+b is listed in math books as a defining example of a linear
> equation. (When plotted, a linear equation produces a straight line.)
> y=mx+b has a special name: "The point slope formula". Perfectly
> descriptive, too.
>
> To clarify everything, graph a few values for yourself.
>
> Best regards, Richard Harrison, KB5WZI

3627. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 15:26:55 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <xfChg.12$AZ7.3@fe09.lga>
Source record: 58318

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:128ccnil05e0744@corp.supernews.com...
> Yuri Blanarovich wrote:
>> . . .
>> Roy, 'splain to him about this 1/8 or so thing. He still dungetit.
>
> Tom understands it, but I see you don't quite have a handle on it yet.
>
> Roy Lewallen, W7EL

So I "don't get it" because I (and others) see the difference in reality,
when electrostatic shield suppresses the local interference. You explain
behavior of E and H field in the vicinity of antenna but that does not apply
to "W8JI shield is the antenna" and "current at both ends of the loading
coil is always the same".

I will stick to my reality handle, rather than joining scientwist's chorus.

73 Yuri, K3BU

3628. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 15:27:28 UTC
From: Tron <Tron@nowhere.org>
Message-ID: <128ds3056onlhb4@corp.supernews.com>
Source record: 58319

Roy Lewallen wrote:
>
> Bill Ogden wrote:
> > OK, let me display my ignorance once again.
> >
> > There are many construction articles about ferrite-core antennas for the low
> > bands. (Not to mention all the ferrite-core antennas in AM receivers.) Are
> > these not H-field antennas, to a large extent?
>
> Only very locally, and only to a limited extent.
>
> When a signal originates far from an antenna, the response to E and H
> fields is in the ratio of about 377 ohms, the impedance of free space.
> This is true for *all antennas*. In other words, all antennas have the
> same relative E and H response to signals originating far away.
>
> Very close to a small loop antenna, response is greater to an H field
> than E field. It does respond to both, however, as all antennas must. As
> you get farther away from the antenna, the response to the H field
> decreases in relation to the E field response. At around an eighth
> wavelength distance from the antenna, the response to E and H fields are
> about the same as for a distant source. Beyond about an eighth
> wavelength, the response to the H field is actually *less* than the
> response to an E field compared to a source at a great distance. The
> ratio of E to H field responses then decreases to the distant value as
> you get farther from the antenna.
>
> In summary, the antenna responds more strongly to the H field if the
> source is within about an eighth of a wavelength from the antenna.
> Beyond that, it actually responds more strongly to the E field relative
> to the H field than a short dipole or many other antennas -- you could
> more properly call it an "E-field antenna" in its response to signals
> beyond about an eighth wavelength. The difference in relative E and H
> field response among all antennas becomes negligible at great distances;
> for antennas which are small in terms of wavelength, the difference
> becomes negligible beyond about a wavelength.
>
> Now, suppose you could make a magic antenna which would respond only to
> the H field of a signal originating at any distance from the antenna
> (which is impossible).

"A system for determining the modulation imposed on
a curl-free magnetic vector potential field.":
http://jnaudin.free.fr/html/tepvppl.htm

Other 'magic' antennae:
http://rugth30.phys.rug.nl/quantummechanics/ab.htm

Robust OP AMP Realization Of Chua's Circuit:
http://citeseer.ist.psu.edu/kennedy92robust.html

> What advantage would it have over a real antenna?

I read the main reason was less electrostatic interference
but with less immunity to strong nearby stations. Does
the magnetic field really have less noise than the E-field?

Polarization is also an interesting component.

> Remember that the E/H ratio of any signal originating very far away is
> 377 ohms, regardless of what kind of antenna or source it came from.

I seem to recall this had something to do with the
speed of light not being infinite.

>
> Roy Lewallen, W7EL

3629. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 15:45:43 UTC
From: Tron <Tron@nowhere.org>
Message-ID: <128dt579n3outf2@corp.supernews.com>
Source record: 58321

Cecil Moore wrote:
>
> w8ji@akorn.net wrote:
> > Reg Edwards wrote:
> >> Precipitation static, eg., from highly charged raindrops and fine snow
> >> or fine sand, impinging on the antenna wire, just causes an increase
> >> in receiver white noise level. It can be reduced but not removed by
> >> using a very thickly insulated antenna wire, like the inner conductor
> >> of a coaxial cable complete with its polyethylene jacket.
> >
> > I've never seen a case of precitation static occuring that way.
>
> I experienced that kind of static in Arizona with wind, extremely
> low humidity, and bare wire. I've never experienced it in East
> Texas.

Isn't this the triboelectric effect? I read this was a big problem for
certain newer wireless applications.

Energized TV antennas always feel 'gritty' when I brush my fingers
lightly across them. Why is that? I also get a very mild shock
sometimes, but that gritty electric sandpaper friction is very strange.

Also the indoor TV antenna collects dust and vaporized
cooking oil like there's no tomorrow. Is this like a Tesla coil?

> --
> 73, Cecil http://www.qsl.net/w5dxp

3630. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 15:52:47 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <jDChg.91877$H71.59453@newssvr13.news.prodigy.com>
Source record: 58322

Bill Ogden wrote:
> To return to the ferrite rod antenna: Ignoring the directional null
> capability (which might be very useful in some real-world circumstances) is
> there any advantage to a small ferrite rod antenna over a short wire antenna?

For the 1980's CA 75m mobile antenna shootouts, a ferrite
rod antenna was used for receiving because the local human
bodies had much less of an effect upon it than, for instance,
upon a hamstick antenna. I always assumed it was because a
human body has more of an effect on the E-field than it does
on the H-field.
--
73, Cecil http://www.qsl.net/w5dxp

3631. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 16:05:09 UTC
From: Bill Ogden <wogden@attglobal.net>
Message-ID: <UrChg.18$Nb7.0@fe12.lga>
Source record: 58320

I understand that E and H fields are intrinsic parts of the same thing (for radio waves, etc), and I am not trying to separate them along the lines discussed by some list participants.

I would think that the E and H ratio of 377 is a function of the SI units of measurement involved. It would seem that there is the same amount of energy (at different and selected instances) in the E and H waves, and different units of measurement could produce a ratio of 1:1 (or anything else, with appropriate units of measurement).

To return to the ferrite rod antenna: Ignoring the directional null capability (which might be very useful in some real-world circumstances) is there any advantage to a small ferrite rod antenna over a short wire antenna (assuming perfect amplifiers, as needed, following the antennas and assuming 160m or 80m usage)?

As mentioned earlier, there have been a number of construction articles over the years explaining how a ferrite rod antenna did wonderful things for 160/80 operation. I have wondered if these results are generally valid, or were the result of the authors' pride in their works, or happened because the directional null abilities solved a local problem.

Bill - W2WO

3632. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 16:19:09 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <jiud82h5i07b0r5r38d1gqu2inojil75lm@4ax.com>
Source record: 58324
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

On Tue, 6 Jun 2006 20:36:46 -0700, "Sal M. Onella"
<salmonella@food.poisoning.org> wrote:

>
>"Chris W" <1qazse4@cox.net> wrote in message
>news:fy7hg.52579$9c6.12825@dukeread11...
>> Can anyone tell me what the official name of the putty they use to seal
>> the holes you run your coax through so bugs don't crawl in the wall or
>> water doesn't get in? I like to get all my hardware type items from
>> mcmaster.com. I'm sure they have it, if I just know what it is called I
>> can find it on their website.
>
I use the "expandable foam" that comes in a can about the size of a
spray paint can. There are two types. The yellow foam that expands
and gets hard which also is sensitive to UV which will cause it to
change color (darken). Don't use this around areas where the pressure
of expansion can cause problems like sealing around a door.

They also have a "soft/flexible" version that is white and costs a bit
more. It's what I use to block the large conduit between the tower
and basement. http://www.rogerhalstead.com/ham_files/cablebox.htm
Shows the conduit at the tower and coming in the basement. I just
squirted the stuff in. I wasn't worried about it being pretty, just
effective. With care you can be a lot more artistic. <:-)) It's easy
to apply and easy to remove when necessary. Bugs and critters appear
to not like the stuff. I like it far better than the putty.

The yellow foam is a tad over $3 USD a can while the white, flexible
stuff is $4 or $5 a can. Both are usually available at Lowe's,
Builder's Square, and hard ware stores.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>I was thinking "electrician's putty" or similar -- what we used to call
>"monkey shit" in the Navy, but I couldn't get a good match on Google for
>those terms. While mulling this over, I remembered also Plumbers Putty.
>While generally not used for coax, I have used it under sinks and in the
>garage for sealing around pipe penetrations. What I have is light tan in
>color. It stays soft and flexible (but I don't know what sunlight does to
>it or whether it will take paint). It's cheap and available and might be
>just what you need.
>

3633. Re: Quad feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 16:31:31 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <syrcA5Pj9vhEFAFo@ifwtech.co.uk>
Source record: 58325

Cecil Moore wrote:
>Ken Bessler wrote:
>> I just built a 3el 6m quad. Should I put a choke or balun
>> at the feedpoint? What type?
>
>A few turns of coax will do the trick for 6m.
>How about this solution from an earlier posting?
>
>|
>|
>| Driven
>| Element
>|
>+====================================coax braid
>
>+-----------------------------------coax center conductor
>|
>| ==============================+===coax braid
>| spacing |
>+--------------------------------+
>| 1/4WL wire (~4.7')
>|
>
The choke balun made from a small coil of coax would be easier to make. At my previous QTH, four turns of about 6in diameter made a big reduction in the levels of noise and birdies on 6m (even though those coil dimensions weren't optimized in any way).

This kind of feedline choke is simple, cheap and low-loss, so by all means go ahead and use one. With a 3-element quad, you should be able to position the coil at the feedpoint while supporting its weight from the mast.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3634. Yet another 6m 3el Quad question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 17:22:22 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <jXDhg.37830$4H.24271@dukeread03>
Source record: 58327

My Quad is all built and I'm waiting or FedEx to deliver my rotor. I built the quad out of wood, with a 1-1/4" dia pine boom and 4' mast plus 1/4"x48" spruce dowels for spreaders. I used insulated 16g stranded wire for the elements. All the wood is either painted or treated with sealer.

Problem is I just broke a spreader moving the antenna and I'm worried about how fragile the whole design is. Would the performance change much if I used 1/4" aluminum rods instead? Maybe I should just get some fiberglass resin and paint the spreaders with several coats? How about wrapping them in re-enforced boxers tape (the good stuff with fibers in the tape)?

Thanks for the help, guys....

--
73's de Ken KG0WX - Kadiddlehopper #11808,
Flying Pigs #-1055, Grid EM17io, FT-857D, AL-84,
Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B

3635. How to model linear loading in shortened dipole of vertical using EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 17:25:44 UTC
From: "Steven R. Jones" <srjones10@cox.net>
Message-ID: <pan.2006.06.07.17.25.41.157132@cox.net>
Source record: 58326

I want to work out a design for a linear loaded off center fed vertical
dipole for 75M (perhaps will work multiband as well?) using linear loading
in an "S" configuration, i.e:
feedpoint
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Which per my reading should let me design a 75M vertical that is only 60%
of the length of a conventional radiator. A recent article in QST showed
the successful use of 450 ohm ladder line with interwoven 3rd wire as a
conveient way to build this sort od linearly loaded design. In attempting
to model this design in EZNEC, I do not seem to get the loading effect and
shorter length of the radiators to achieve resonance, nor do I get the
feedpoint impedance lowering that is described for this sort of loading.
I was hoping that the OCFD design would allow direct feed through a choke
balun without having to deal with impedance transformations. with either
an excessively low center feed impedance (with loading) or the typical
~200 feedpoint impedance and 4:1 balun required with the OCFD design at about 1/3 distance
from
one end.

Any thoughts or prior experience to share?

Steve
KQ4WB

3636. Re: How to model linear loading in shortened dipole of vertical using EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 17:30:43 UTC
From: "Steven R. Jones" <srjones10@cox.net>
Message-ID: <pan.2006.06.07.17.30.41.689626@cox.net>
Source record: 58328

sorry, the diagram came out mangled on the post. the idea is a derivative
of the construction used in "The K4VX linear loaded dipole for 7 MHz"
QST, July 2002, pages 40-42.

Thanks

Steve

On Wed, 07 Jun 2006 13:25:44 -0400, Steven R. Jones wrote:

> I want to work out a design for a linear loaded off center fed vertical
> dipole for 75M (perhaps will work multiband as well?) using linear loading
> in an "S" configuration, i.e:
> feedpoint
> I----------------------------------()-------------I
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> ----------------------------------I I-------------
>
> Which per my reading should let me design a 75M vertical that is only 60%
> of the length of a conventional radiator. A recent article in QST showed
> the successful use of 450 ohm ladder line with interwoven 3rd wire as a
> conveient way to build this sort od linearly loaded design. In attempting
> to model this design in EZNEC, I do not seem to get the loading effect and
> shorter length of the radiators to achieve resonance, nor do I get the
> feedpoint impedance lowering that is described for this sort of loading.
> I was hoping that the OCFD design would allow direct feed through a choke
> balun without having to deal with impedance transformations. with either
> an excessively low center feed impedance (with loading) or the typical
> ~200 feedpoint impedance and 4:1 balun required with the OCFD design at about 1/3
distance from
> one end.
>
> Any thoughts or prior experience to share?
>
> Steve
> KQ4WB

3637. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 17:39:47 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1149701987.056423.87510@i40g2000cwc.googlegroups.com>
Source record: 58329
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Not Cocksucker Lloyd wrote:
> assraped by an old freind wrote:
> > J. D. B. wrote:
> > > That is a very good point that I never considered. In thinking about it,
> > > it makes perfect sense. "Mode Welfare" - too funny.
> > well thank you for making my day Sir
> >
> > although the phrase isn't mine it cames from the regulars here on RRAp
> > from back in 1990's
>
> It figures you'd have to plagiarize it, Markie. Dumbass!
you are no one to talk you whole is stolen you have even stolen another
man name to use fto accuse me of stealing
get help

3638. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 17:40:14 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <EMSdncbHtJvhkhrZnZ2dnUVZ_qSdnZ2d@comcast.com>
Source record: 58330
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

Self Vulcanizing Tape

Mike Y wrote:
> When I used to work for a power company, they used a 'tape' that was
> like a strip of rubber just under maybe 1/8" thick. When you pulled it off
> the roll, you had to remove a paper backing, then 'stretch' the tape to
> activate it. Then when it was wrapped around a connection, it would
> 'cure' into a solid mass.
>
> I think RS used to sell something similar, but have no idea what it would
> be called.
>
> You might try some industrial electrical supply houses.
>
> Mike
>
>

3639. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 17:59:49 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97DB700F69532spectrumhogstarbandn@198.186.192.196>
Source record: 58331
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

> No more automatic renewals. Individuals must retest and pass all
elements
> required for their license class.
>
>
> The passing score for written exams needs to be raised to 85%.
>
>
> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
>
> Make the no-code Tech license one year non-renewable.

You forgot one item.... abolish the VEC program and mandate that
all candidates must test at an FCC Field Office.

Also, it would be nice to abolish transistors and madate using only
tubes, too! :^)

Ed K7AAT

3640. take it you will have a stroke...no wait go for it

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 18:22:31 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1149704551.360331.190990@g10g2000cwb.googlegroups.com>
Source record: 58332
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

Slow Code wrote:
> No more automatic renewals. Individuals must retest and pass all elements
> required for their license class.
>
>
> The passing score for written exams needs to be raised to 85%.
>
>
> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
>
> Make the no-code Tech license one year non-renewable.
>
>
> sc
you do want to kill Cw along with the ARS don't you

3641. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 19:03:27 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e677tv$1a4q$1@f04n12.cac.psu.edu>
Source record: 58333
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap

Ed wrote:
>> No more automatic renewals. Individuals must retest and pass all
> elements
>> required for their license class.
>>
>>
>> The passing score for written exams needs to be raised to 85%.
>>
>>
>> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>>
>>
>> Make the no-code Tech license one year non-renewable.
>
>
>
> You forgot one item.... abolish the VEC program and mandate that
> all candidates must test at an FCC Field Office.
>
>
> Also, it would be nice to abolish transistors and madate using only
> tubes, too! :^)

All licenses should be terminated, immediately, and future testing will be a minimum of 110 wpm Morse code in a language that the applicant does not know. All sent straight key.

Written tests will be changed to essay type. The applicant must demonstrate mastery of all aspects of RF discipline at the PhD level. Since people can look up answers in a book as well as a test question pool, all work must be new and cutting edge. Any answer that can be found in a book will disqualify the applicant.

Upon the successful defense of the applicant's thesis, a 20 year waiting period starts. The work done by the applicant in pursuit of his license must be demonstrated to have a lasting and profound effect upon the RF discipline and especially so on the Amateur radio community.

There may only be 2 hams left, but just imagine how superior they can feel about themselves........

3642. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 19:04:17 UTC
From: Mike Y <joe@user.com>
Message-ID: <EPChg.100$Jf.20@fe03.lga>
Source record: 58323
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

When I used to work for a power company, they used a 'tape' that was like a strip of rubber just under maybe 1/8" thick. When you pulled it off the roll, you had to remove a paper backing, then 'stretch' the tape to activate it. Then when it was wrapped around a connection, it would 'cure' into a solid mass.

I think RS used to sell something similar, but have no idea what it would be called.

You might try some industrial electrical supply houses.

Mike

3643. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 19:29:02 UTC
From: Allodoxaphobia <bit-bucket@config.com>
Message-ID: <slrne8eaj2.ueo.bit-bucket@shell.config.com>
Source record: 58334
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap

On Wed, 07 Jun 2006 15:03:27 -0400, Michael Coslo wrote:
>
> <-BIG snip->
>
> There may only be 2 hams left, but just imagine how superior they can
> feel about themselves........

And, the rec.radio.amateur... ng's will still suffer from trolls and
off-topic postings.

3644. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 19:39:34 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <128earr46e4i34e@corp.supernews.com>
Source record: 58335

My reality, and Tom's, fits with the clear explanations in Johnson's _Antenna Engineering Handbook_ (successor to Jasik); King and Harrison's _Antennas and Waves_; King, Mimno, and Wing's _Transmission Lines, Antennas, and Wave Guides_; and undoubtedly others, since it comes from basic electromagnetic principles.

I explained the nature of the E and H fields from a small loop antenna. This is the sum of the fields from each part of the loop. It is not representative of the field in the small region between the wire and shield of a "shielded" loop, as you seem to be trying to infer.

If you'd spend a fraction of the time studying that you spend desperately trying to find something wrong with anything Tom says, you'd have a much better understanding of how antennas work.

Roy Lewallen, W7EL

Yuri Blanarovich wrote:
> "Roy Lewallen" <w7el@eznec.com> wrote in message
> news:128ccnil05e0744@corp.supernews.com...
>> Yuri Blanarovich wrote:
>>> . . .
>>> Roy, 'splain to him about this 1/8 or so thing. He still dungetit.
>> Tom understands it, but I see you don't quite have a handle on it yet.
>>
>> Roy Lewallen, W7EL
>
> So I "don't get it" because I (and others) see the difference in reality,
> when electrostatic shield suppresses the local interference. You explain
> behavior of E and H field in the vicinity of antenna but that does not apply
> to "W8JI shield is the antenna" and "current at both ends of the loading
> coil is always the same".
>
> I will stick to my reality handle, rather than joining scientwist's chorus.
>
> 73 Yuri, K3BU
>
>

3645. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 19:53:57 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <128ebmplg6g9080@corp.supernews.com>
Source record: 58336

Bill Ogden wrote:
> I understand that E and H fields are intrinsic parts of the same thing (for
> radio waves, etc), and I am not trying to separate them along the lines
> discussed by some list participants.
>
> I would think that the E and H ratio of 377 is a function of the SI units of
> measurement involved. It would seem that there is the same amount of energy
> (at different and selected instances) in the E and H waves, and different
> units of measurement could produce a ratio of 1:1 (or anything else, with
> appropriate units of measurement).

Yes, that's correct. What I tried to do in my explanation was to relate the E/H ratio near a small loop with that of free space. That makes the units of measure immaterial.

> To return to the ferrite rod antenna: Ignoring the directional null
> capability (which might be very useful in some real-world circumstances) is
> there any advantage to a small ferrite rod antenna over a short wire antenna
> (assuming perfect amplifiers, as needed, following the antennas and assuming
> 160m or 80m usage)?

You get a greater effective aperture (aka "capture area", and directly related to "effective length") from the ferrite rod antenna for a given physical size. This results in a larger signal for a given impinging field strength. If you had perfect amplifiers, that would make no difference, but real amplifiers generate noise, so a larger signal results in a better signal/noise ratio when you're at the level where the amplifier noise dominates the system noise figure. But if the signal level is large enough so that atmospheric noise dominates, having a greater aperture doesn't present any advantage.

> As mentioned earlier, there have been a number of construction articles over
> the years explaining how a ferrite rod antenna did wonderful things for
> 160/80 operation. I have wondered if these results are generally valid, or
> were the result of the authors' pride in their works, or happened because
> the directional null abilities solved a local problem.

Anecdotal reports of "wonderful things" should always be highly suspect, and placebo effect high on the list of possible causes. It might be easier to get a good null with a ferrite rod antenna than with a casually built antenna of some other kind, and that would be a big potential advantage.

When considering the value of anecdotal reports, consider the widely reported benefits of various kinds of speaker cable, and the staggering amount of money that's being extracted from the believers.

Roy Lewallen, W7EL

3646. Re: End-fed wire question.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 19:58:35 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <128ebvef3u49he6@corp.supernews.com>
Source record: 58337

BKR wrote:
>
> End fed wires must always be used against an efficient ground system
> consisting of a large number of radials or a tuned counterpoise for each
> frequency.
>
> A single ground rod is normally fairly poor.

It depends on the length of the wire. If it's near an odd number of quarter wavelengths long, the radiation resistance between the end and ground will be low, and a good ground system is necessary to get good efficiency. If it's significantly shorter than a quarter wavelength, the resistance is lower yet and a very good system is required. On the other hand, if it's close to an integral number of half wavelengths, the resistance will be high, and you can get by with a very poor ground system -- in many cases just a ground rod -- without sacrificing a significant amount of efficiency.

That's the reason why a half wave antenna works so well on an HT.

Roy Lewallen, W7EL

3647. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 20:21:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <128eda58dva2n33@corp.supernews.com>
Source record: 58338

J. B. Wood wrote:
> . . . It's patented so it must work...

Yeah, like U.S. patent 6,025,810, "Hyper-Light-Speed Antenna"
(http://tinyurl.com/h546u).

Roy Lewallen, W7EL

3648. I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 20:26:26 UTC
From: cq-dx@arrl.net
Message-ID: <ndsk43-djasp3ikomsfd-asdok@news.arrl.net>
Source record: 58339
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Did I get ripped off?

3649. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 20:28:38 UTC
From: Bob <someone@nospam.com>
Message-ID: <qdedneGlgNNdqxrZnZ2dnUVZ_oidnZ2d@comcast.com>
Source record: 58340
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

Whoa, wait until I can dump my gear on ebay.
There will be a glut of ham gear should SC's wishes come true.

"Slow Code" <my.mail@no.spam> wrote in message
news:WpEhg.2725$lp.611@newsread3.news.pas.earthlink.net...
> No more automatic renewals. Individuals must retest and pass all elements
> required for their license class.
>
>
> The passing score for written exams needs to be raised to 85%.
>
>
> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
>
> Make the no-code Tech license one year non-renewable.
>
>
> sc
>
>
>

3650. Re: End-fed wire question.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 20:44:15 UTC
From: Bob <someone@nospam.com>
Message-ID: <Ra6dnUYpsOL4pxrZnZ2dnUVZ_s2dnZ2d@comcast.com>
Source record: 58341

My end fed inverted "L" goes up 20 feet and then out 75 feet, with the far end about 25' high. It is fed with a homebrew remote controlled tuner (50' from shack), simple series roller inductor and a parallel capacitor on the output. Ground system is about 6 pieces of various 20 to 30 foot lengths of wire, in a sort of random star shape, buried about 2".
It generally outperformed a dipole I had up with an A/B switch to compare the two. The dipole was 25' up, 65 feet long and fed with ladder line from a link coupled tuner. The dipole was a tad quieter, but the "L" received and transmitted maybe an S unit better.
I've read in more than a few places that you need to get the vertical part as high as possible before it heads on out to the woods.
Bob
KB8TL

"blair thompson" <blairt@abcomm.ca> wrote in message
news:0ukc82prneu4c8u1pdnpe132g06353kvk2@4ax.com...
> I have a 63 ft. end-fed wire antenna which I am using with an MFJ-949
> versa tuner, and 4 counterpoises cut for 1/4 wave on 15,20, 30 and 40
> meters. Far end not very high, about 25 feet up a tree, shot up there
> with a slingshot. Pretty thick foliage right now, but not a lot of the
> wire is showing and in the clear as the near end of the wire slopes
> down almost to ground level (townhome QTH).
>
> Bit of an underperformer, and I was wondering whether it would be
> worth my while to install a ground rod in order to ground the tuner,
> and whether that might improve matters a bit,
>
> Thanks for any information.
> Blair VA7NA

3651. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 21:10:09 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1149714609.565540.160300@c74g2000cwc.googlegroups.com>
Source record: 58342
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

New Ham wrote:
> Did I get ripped off?

You might try a Stetson.

3652. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 21:22:52 UTC
From: Brian Hill <good@it.net>
Message-ID: <MsHhg.24$0I2.8@fe06.lga>
Source record: 58343
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

"John S." <hjsjms@cs.com> wrote in message
news:1149714609.565540.160300@c74g2000cwc.googlegroups.com...
>
> New Ham wrote:
>> Did I get ripped off?
>
> You might try a Stetson.
>

four or five X beaver John?

BH

3653. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 22:21:49 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1149718908.950080.133240@u72g2000cwu.googlegroups.com>
Source record: 58344
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

Bob wrote:
> Whoa, wait until I can dump my gear on ebay.
> There will be a glut of ham gear should SC's wishes come true.
indeed I wsh I kew why he hates the ARS much

3654. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 22:30:50 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <ZsIhg.769$nN6.536@fe11.lga>
Source record: 58345

"Roy Lewallen" <w7el@eznec.com> wrote
>
> If you'd spend a fraction of the time studying that you spend desperately
> trying to find something wrong with anything Tom says, you'd have a much
> better understanding of how antennas work.
>
> Roy Lewallen, W7EL
>

Congratulations Roy,
you have nove graduated from "W8JI school of personal mud slinging" when
running out of arguments.
How perceptive: " ...desperately....anything Tom says...."

"Better understanding" - you mean swallowing fallacies you scientwists
proclaim?
I will stick with my understanding of how antennas work and I can measure,
vs. your misapplied theories why it "can't be so".

73 Yuri, K3BU

3655. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 23:08:50 UTC
From: w8ji@akorn.net
Message-ID: <1149721730.564878.262550@j55g2000cwa.googlegroups.com>
Source record: 58346

J. Mc Laughlin wrote:

> P-noise is not found on an antenna imbedded in a clump of trees when an
> antenna out in the open (many wavelengths from the first antenna) has
> P-noise. The follow-on is that since most sites are urban or suburban, few
> radio amateurs will experience P-noise.

That does not disagree with anything I said. A lower antenna surrounded
by taller objects is not subject to the same high voltage gradient as
an antenna out in a flat clear field.

> P-noise is observed when there is no rain nor thunderstorms, but plenty
> of wind. This is suggestive of moving charge discharging into the antenna.

So how does it get there? How does it build up? Where is the spark arc
or sizzle?

> Of course, one could define this action as being "corona." Of course, if
> one places enough charge on a piece of metal eventually there will be
> "corona." Many antennas have a conductive path to earth that makes such an
> accumulation of charge unlikely.

The fact is grounded or ungrounded antennas all behave the very same
way. Ask anyone who has yagis on towers. It is a potential difference
between earth and the atmosphere around the antenna. It isn't the
antenna charging up so much differently than earth. It is the
difference in potential between the antenna and the space around the
antenna.

Remember those old tall mast wooden sailing ships soaked with saltwater
and the fire off the yardarms at night?

> Your #6 is interesting. Unfortunately, there is so much radiation from
> what else is on a tall building that it is difficult to sort out where
> excess noise is coming from. An antenna inside of a slightly conductive
> radome that is placed a long distance from anything that could radiate might
> be different.

You can walk right up to the noise source, and even see the corona at
night. It's very easy to take a FSM with audio monitor or AM receiver
with S meter and walk the roof for strongest noise, and it will
generally take you right to the tallest sharpest object (grounded or
not) on the roof.

The last place you want to be is the tallest antenna on the building.
Get high winds or inclement weather and you will be destined for
noise....grounded antenna or not.

We serviced dozens of repeaters and a few STL or Remote links in the 70's, it was a pattern that repeated.

I have a suggestion. Go to a forum where there are many people with antennas at various heights, like a contesting reflector. Ask people who have similar or identical antennas at various heights on a single tall tower what they observe during high winds, nasty weather, or rain. The very same wind and the very same moisture is impacting all of the antennas, but without fail they will tell you the lower antennas are always much better and the taller antennas are the first to go.

If the P-staic is actually coming from the particles or moisture in air striking the antenna, and if the same basic sample of weather is at all the antennas, why are the upper antennas affected more?

If it is the conductor charging, why do plumber's delight antennas or folded elements with grounded centers have the same noise as insulated elements?

If it is moisture or particles striking the antenna causing the problem, why is an insulated antenna with a single sharp protrusion just as noisey as a bare antenna? Why doesn't the noise follow the pattern of the particle rate, and why does it occur (as you even seemed to say) when there is no actual precipitation?

Since I've always had towers taller than 100 feet, and since I've worked on VHF and UHF systems that had to stay up during storms, I've spent a lot of time looking at this. I've not found anything that points to the antenna charging differently than earth or being struck by charged particles.

73 Tom

3656. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 23:12:12 UTC
From: Gil <common_man@cox.net>
Message-ID: <b5Jhg.28301$ZW3.24279@dukeread04>
Source record: 58347
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

Ed wrote:
>> No more automatic renewals. Individuals must retest and pass all
>> elements required for their license class.
>>
>>
>> The passing score for written exams needs to be raised to 85%.
>>
>>
>> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>>
>>
>> Make the no-code Tech license one year non-renewable.
>
>
>
> You forgot one item.... abolish the VEC program and mandate that
> all candidates must test at an FCC Field Office.
>
>
> Also, it would be nice to abolish transistors and madate using only
> tubes, too! :^)
>
>
>
> Ed K7AAT

Tubes are for appliance operators...real hams use SPARK!!! Hmm, wonder what
a spark-gap transmitter would do to a BPL Internet deployment. Might have
to try...

3657. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 23:19:49 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <paJhg.18900$VE1.10192@newssvr14.news.prodigy.com>
Source record: 58348
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

Think it scotch #23 tape (and several other
numbers . Home Depot and Lowes has the stuff
(Not to be confused with "Coax Connector Sealant"
Radio shack # 278-1645, which is also great for
sealing connectors against the weather). Great for
weatherproofing, but needs to be covered (it
is ultravilot sensitive) But- NOT to use it to
plug holes! Dux Seal (a.k.a. "Monkey Shit" is
MUCH BETTER-- Jim NN7K

Mike Y wrote:
> When I used to work for a power company, they used a 'tape' that was
> like a strip of rubber just under maybe 1/8" thick. When you pulled it off
> the roll, you had to remove a paper backing, then 'stretch' the tape to
> activate it. Then when it was wrapped around a connection, it would
> 'cure' into a solid mass.
>
> I think RS used to sell something similar, but have no idea what it would
> be called.
>
> You might try some industrial electrical supply houses.
>
> Mike
>
>

3658. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 23:31:19 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <blJhg.19147$VE1.18282@newssvr14.news.prodigy.com>
Source record: 58349
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Reminds me of the time (many years ago), when the
new kid on the gang was ordered to "Wash the
Dishes" (microwave), on a 150 foot tower ! Kid
decided it was time to quit! Had to
tell him it was a JOKE, or get the WHOLE Gang
in hot water !!! Jim NN7K

Brian Hill wrote:
> "John S." <hjsjms@cs.com> wrote in message
> news:1149714609.565540.160300@c74g2000cwc.googlegroups.com...
>
>>New Ham wrote:
>>
>>>Did I get ripped off?
>>
>>You might try a Stetson.
>>
>
>
> four or five X beaver John?
>
> BH
>
>

3659. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 23:48:33 UTC
From: jawod <jawod@fuse.net>
Message-ID: <448765D1.5060004@fuse.net>
Source record: 58350
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

>
>
> You forgot one item.... abolish the VEC program and mandate that
> all candidates must test at an FCC Field Office.
>
Hell, do it right. Transfer ham radio to the Food and Drug
Administration where we know we all belong. Annual meat inpections
mandatory.
>
> Also, it would be nice to abolish transistors and madate using only
> tubes, too! :^)
>
>
>
> Ed K7AAT

3660. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 23:55:59 UTC
From: yea right <spam@spam.spam>
Message-ID: <pan.2006.06.07.23.55.58.132808@spam.spam>
Source record: 58351
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

>
> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>

No Way! 35wpm for extra!

3661. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 23:56:44 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1149724604.928282.248280@u72g2000cwu.googlegroups.com>
Source record: 58352
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Or looking for a left-handed crescent wrench and fetching a bucket of
prop wash.

Jim - NN7K wrote:
> Reminds me of the time (many years ago), when the
> new kid on the gang was ordered to "Wash the
> Dishes" (microwave), on a 150 foot tower ! Kid
> decided it was time to quit! Had to
> tell him it was a JOKE, or get the WHOLE Gang
> in hot water !!! Jim NN7K
>
>
>
> Brian Hill wrote:
> > "John S." <hjsjms@cs.com> wrote in message
> > news:1149714609.565540.160300@c74g2000cwc.googlegroups.com...
> >
> > >>New Ham wrote:
> > >>
> > >>>Did I get ripped off?
> > >>
> > >>You might try a Stetson.
> > >>
> > >
> > >
> > > four or five X beaver John?
> > >
> > > BH
> > >
> > >

3662. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-07 23:57:27 UTC
From: jawod <jawod@fuse.net>
Message-ID: <448767E7.4040009@fuse.net>
Source record: 58353
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

John S. wrote:
> New Ham wrote:
>
>>Did I get ripped off?
>
>
> You might try a Stetson.
>
Try a Dunce Cap (low capacitance) attached to your screwdriver and
manually adjust until your dip meter reads moron :)

3663. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 00:21:51 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <128ercucqikj3b0@corp.supernews.com>
Source record: 58354
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

John S. wrote:
> Or looking for a left-handed crescent wrench and fetching a bucket of
> prop wash.

The problem with this joke is that the wrench exhists. Handedness in a
wrench is determined by which thumb closes the jaws. Right thumb right
hand wrench, left thumb left handed wrench.

I have a left handed crescent type wrench. Where was it made?
POLAND of course.

Wrench available for inspection.

Dave WD9BDZ

>
>
> Jim - NN7K wrote:
>
>>Reminds me of the time (many years ago), when the
>>new kid on the gang was ordered to "Wash the
>>Dishes" (microwave), on a 150 foot tower ! Kid
>>decided it was time to quit! Had to
>>tell him it was a JOKE, or get the WHOLE Gang
>>in hot water !!! Jim NN7K
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>>
>>
>>Brian Hill wrote:
>>
>>>"John S." <hjsjms@cs.com> wrote in message
>>>news:1149714609.565540.160300@c74g2000cwc.googlegroups.com...
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>>>>New Ham wrote:
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>>>>>Did I get ripped off?
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>>>>You might try a Stetson.
>>>>
>>>
>>>

```
>>>four or five X beaver John?
>>>
>>>BH
>>>
>>>
>
>
```

3664. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 01:37:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <dbLhg.42190$fb2.29436@newssvr27.news.prodigy.net>
Source record: 58355

w8ji@akorn.net wrote:
> J. Mc Laughlin wrote:
>> P-noise is observed when there is no rain nor thunderstorms, but plenty
>> of wind. This is suggestive of moving charge discharging into the antenna.
>
> So how does it get there? How does it build up? Where is the spark arc
> or sizzle?

This is a well known phenomenon in Arizona. What else, besides
charged dust particles, could cause arcing at coax connectors
on a perfectly clear windy day?
--
73, Cecil http://www.qsl.net/w5dxp

3665. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 01:47:20 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <128f0bfir75r9ec@corp.supernews.com>
Source record: 58356

Dear Tom:

It appears that two noise mechanisms exist. The two are P-noise and corona noise. A receiver will experience close to white noise in both cases. However, corona noise tends to be accompanied by sudden stops and starts and P-noise starts with a sequence of perceptibly time spaced pops that increase in rate.

If there is corona off of the top of a structure then it is reasonable to expect the antennas most close to the corona will "hear" more noise than the antennas that are farther away (such as below).

It is also to be expected that moving charged particles that are higher above the ground will carry more charge on the average than charged particles that are moving near the ground. Depending on the wind and gradient, I expect that there is a height below which few charged particles are found when higher above ground charged particles are common.

In short: If one can see corona, it will be the dominate noise source. If the gradient with altitude is not sufficient for corona, and weather conditions are such that moving charged particles exist, then out in the open the higher antennas are expected to have more discharges from moving charged particles per second and more noise than experienced by lower antennas.

I have offered an alternative explanation for why, absent corona, higher antennas might well experience more noise.

Actual precipitation (rain, snow, hail) is not needed for P-noise. Moving dust particles can carry charge and become charged. The noise does follow the "pattern of the particle rate." However, as you understand from other work, when the rate becomes high enough compared to the bandwidth of the receiver the result is essentially indistinguishable from white noise. Even with a 400 Hz bandwidth, the onset of P-noise is unique and comprises a sequence of pops that either die away or increase in rate to produce prodigious amounts of noise. I have used a time blanking circuit - noise clipper - and find that it is effective at lower rates. Corona noise does not seem to have the same temporal characteristics.

A moving charged particle is able to discharge into an insulated conductor with aplomb. It is the very-close-to-the-antenna sudden accelerations of charge that produce noise (radio waves). What has shown promise is the use of slightly conductive coverings. The theory is that the amplitude of the pop will be reduced because the rate of charge transfer will be slowed. UV resistant materials that are easy to apply and that are not expensive seem not to exist. Obviously, too much conductivity would be

ineffective.

Absent actual corona, a noise mechanism is contended that comprises the sudden transfer of some or all of the charge on a moving charged particle (that occurs naturally) into an antenna's structure, support or even into insulation around same.

A near optimum, HF, DX, low-noise receiving antenna is a small, horizontal, unturned loop antenna with an amplifier that is mounted on a wood pole having no metal inserts. The pole is some 200 meters from any exposed metal. The coax that runs up the pole to the amplifier is encased in conductive, plastic conduit as is the loop's wire. This antenna has close to a null at the zenith and is omnidirectional in azimuth.

It is contended that what I have observed is not in conflict with what you have observed with corona discharges. 73 Mac N8TT

P.S. Some months ago you asked about V antennas for low HF or MF use involving a 300 foot tower. I found that an interesting topic and did some analysis, which I tried to sent to you. Unfortunately, the E-mail address did not work. My conclusion, was, as well as I am able to remember, the same as yours: at the low frequencies involved, the effort did not have a reasonable pay-back.
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
<w8ji@akorn.net> wrote in message
news:1149721730.564878.262550@j55g2000cwa.googlegroups.com...
> J. Mc Laughlin wrote:
>
> > P-noise is not found on an antenna imbedded in a clump of trees when
an
> > antenna out in the open (many wavelengths from the first antenna) has
> > P-noise. The follow-on is that since most sites are urban or suburban,
few
> > radio amateurs will experience P-noise.
>
> That does not disagree with anything I said. A lower antenna surrounded
> by taller objects is not subject to the same high voltage gradient as
> an antenna out in a flat clear field.
>
> > P-noise is observed when there is no rain nor thunderstorms, but
plenty
> > of wind. This is suggestive of moving charge discharging into the
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>
> So how does it get there? How does it build up? Where is the spark arc
> or sizzle?
>
> > Of course, one could define this action as being "corona." Of course,
if

> > one places enough charge on a piece of metal eventually there will be
> > "corona." Many antennas have a conductive path to earth that makes such
an
> > accumulation of charge unlikely.
>
> The fact is grounded or ungrounded antennas all behave the very same
> way. Ask anyone who has yagis on towers. It is a potential difference
> between earth and the atmosphere around the antenna. It isn't the
> antenna charging up so much differently than earth. It is the
> difference in potential between the antenna and the space around the
> antenna.
>
> Remember those old tall mast wooden sailing ships soaked with saltwater
> and the fire off the yardarms at night?
>
> > Your #6 is interesting. Unfortunately, there is so much radiation
from
> > what else is on a tall building that it is difficult to sort out where
> > excess noise is coming from. An antenna inside of a slightly conductive
> > radome that is placed a long distance from anything that could radiate
might
> > be different.
>
> You can walk right up to the noise source, and even see the corona at
> night. It's very easy to take a FSM with audio monitor or AM receiver
> with S meter and walk the roof for strongest noise, and it will
> generally take you right to the tallest sharpest object (grounded or
> not) on the roof.
>
> The last place you want to be is the tallest antenna on the building.
> Get high winds or inclement weather and you will be destined for
> noise....grounded antenna or not.
>
> We serviced dozens of repeaters and a few STL or Remote links in the
> 70's, it was a pattern that repeated.
>
> I have a suggestion. Go to a forum where there are many people with
> antennas at various heights, like a contesting reflector. Ask people
> who have similar or identical antennas at various heights on a single
> tall tower what they observe during high winds, nasty weather, or rain.
> The very same wind and the very same moisture is impacting all of the
> antennas, but without fail they will tell you the lower antennas are
> always much better and the taller antennas are the first to go.
>
> If the P-staic is actually coming from the particles or moisture in air
> striking the antenna, and if the same basic sample of weather is at all
> the antennas, why are the upper antennas affected more?
>
> If it is the conductor charging, why do plumber's delight antennas or
> folded elements with grounded centers have the same noise as insulated

> elements?
>
> If it is moisture or particles striking the antenna causing the
> problem, why is an insulated antenna with a single sharp protrusion
> just as noisey as a bare antenna? Why doesn't the noise follow the
> pattern of the particle rate, and why does it occur (as you even seemed
> to say) when there is no actual precipitation?
>
> Since I've always had towers taller than 100 feet, and since I've
> worked on VHF and UHF systems that had to stay up during storms, I've
> spent a lot of time looking at this. I've not found anything that
> points to the antenna charging differently than earth or being struck
> by charged particles.
>
> 73 Tom
>

3666. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 02:22:51 UTC
From: Brian Denley <b.denley@comcast.net>
Message-ID: <QMydnTo9LeRhFBrZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 58357
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

David G. Nagel wrote:
> John S. wrote:
>> Or looking for a left-handed crescent wrench and fetching a bucket of
>> prop wash.
>
> The problem with this joke is that the wrench exhists. Handedness in a
> wrench is determined by which thumb closes the jaws. Right thumb right
> hand wrench, left thumb left handed wrench.
>
> I have a left handed crescent type wrench. Where was it made?
> POLAND of course.
>
> Wrench available for inspection.
>
> Dave WD9BDZ
>
>
At 23, I took a job as a young engineer at a place that had previously been
a gyroscope manufacturer. As the new guy, they asked my to deliver a
briefcase to the boss' office and (you guessed it) there was a spinning gryo
in the briefcase. I got a big surprise when I tried to turn a corner in the
corrider and the briefcase kept going straight ahead! A great 'new guy'
trick.
--
Brian Denley
http://home.comcast.net/~b.denley/index.html

3667. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 02:25:40 UTC
From: George <forvmman@msn.com>
Message-ID: <1149733540.688609.223940@g10g2000cwb.googlegroups.com>
Source record: 58358
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

Jim - NN7K wrote:
> Think it scotch #23 tape (and several other
> numbers . Home Depot and Lowes has the stuff
> (Not to be confused with "Coax Connector Sealant"
> Radio shack # 278-1645, which is also great for
> sealing connectors against the weather). Great for
> weatherproofing, but needs to be covered (it
> is ultravilot sensitive) But- NOT to use it to
> plug holes! Dux Seal (a.k.a. "Monkey Shit" is
> MUCH BETTER-- Jim NN7K
>
> Mike Y wrote:
> > When I used to work for a power company, they used a 'tape' that was
> > like a strip of rubber just under maybe 1/8" thick. When you pulled it off
> > the roll, you had to remove a paper backing, then 'stretch' the tape to
> > activate it. Then when it was wrapped around a connection, it would
> > 'cure' into a solid mass.
> >
> > I think RS used to sell something similar, but have no idea what it would
> > be called.
> >
> > You might try some industrial electrical supply houses.
> >
> > Mike
> >
> >

3668. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 02:34:53 UTC
From: George <forvmman@msn.com>
Message-ID: <1149734093.836818.227270@f6g2000cwb.googlegroups.com>
Source record: 58359
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

Chris W wrote:
> Can anyone tell me what the official name of the putty they use to seal
> the holes you run your coax through so bugs don't crawl in the wall or
> water doesn't get in? I like to get all my hardware type items from
> mcmaster.com. I'm sure they have it, if I just know what it is called I
> can find it on their website.
>
>
>
> --
> Chris W
> KE5GIX
>

George
WB3HUH SAYS:

Try DOW Chemical's "Great Stuff ", a "Tripple Expanding Polyurethane
Foam Sealant"
This comes in a paint spray size can and is applied withan attachable
tube.
It sticks to everything, as it goes in as a liquid then expands to fill
even large holes.
It firms up and seals tight. Cable companies around here use it. Even
works well on cinder block

> Gift Giving Made Easy
> Get the gifts you want &
> give the gifts they want
> One stop wish list for any gift,
> from anywhere, for any occasion!
> http://thewishzone.com

3669. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 02:51:58 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <448790cf$0$6154$39cecf19@news.twtelecom.net>
Source record: 58360
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

yea right wrote:

>>Code elements should be 13 wpm for General, and 20 wpm for Extra.
>>
>
>
> No Way! 35wpm for extra!
>

Come on, that sets the bar way too low.

100 wpm CW, and 45 baud RTTY. RTTY is the wave of the future, after all.

And we add a new class called "Extra Extra Read All About It!" where you
have to copy Hellschreiber and PSK31 and copy and whistle 1200 baud packet.

tom
K0TAR

3670. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 02:52:47 UTC
From: k3pi@arrl.net
Message-ID: <1149735167.473885.69060@u72g2000cwu.googlegroups.com>
Source record: 58361
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

I worked in a shoe store as a teenager.

The newbies were instructed to get the wall-stretcher from the backroom
when there were too many shoes to put up.

jawod wrote:
> John S. wrote:
> > New Ham wrote:
> >
> >>Did I get ripped off?
> >
> >
> > You might try a Stetson.
> >
> Try a Dunce Cap (low capacitance) attached to your screwdriver and
> manually adjust until your dip meter reads moron :)

3671. Re: How to model linear loading in shortened dipole of vertical using EZNEC?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 03:00:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <f24f82d7r5reqdp0f1vau2cf75alpnvhv2@4ax.com>
Source record: 58362

On Wed, 07 Jun 2006 13:25:44 -0400, "Steven R. Jones"
<srjones10@cox.net> wrote:

>In attempting
>to model this design in EZNEC, I do not seem to get the loading effect and
>shorter length of the radiators to achieve resonance, nor do I get the
>feedpoint impedance lowering that is described for this sort of loading.

Hi Steve,

This may well be due to its inability to resonate as advertised. This
is not an infrequent complaint.

One compelling contradiction is seen in the description of the antenna
as being 60% of the conventional length; and the illustration of the
antenna built in thirds which would suggest it is 33% of conventional
length. Simple errors such as this lead to massive failures in
expectation.

This leads us to the observation that if you can erect a 1/6th
wavelength vertical, what do you stand to gain with this spaghetti
design that would put it ahead so much further?

73's
Richard Clark, KB7QHC

3672. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 03:35:33 UTC
From: w8ji@akorn.net
Message-ID: <1149737733.436349.216110@f6g2000cwb.googlegroups.com>
Source record: 58363

J. Mc Laughlin wrote:

> It appears that two noise mechanisms exist. The two are P-noise and
> corona noise. A receiver will experience close to white noise in both
> cases. However, corona noise tends to be accompanied by sudden stops and
> starts and P-noise starts with a sequence of perceptibly time spaced pops
> that increase in rate.

Pops are caused by something charging and flashing over. All it takes to eliminate pops is a leak resistance or a leak choke slow enough to keep the antenna from charging.

I've never heard the slow popping noise called P-static by anyone I know, but that doesn't say some people don't call it that.

I have dipole high in the air, and on a clear day with a fair breeze they will knock someone right on their butt if the feeder is unhooked and the antenna allowed to charge. It does that dust or no dust, although nasty weather seems to greatly increase charge rate.

It's easy to see why that happens.

http://www.who.int/peh-emf/publications/3_EHC_232_Sources_and_Exposure.pdf

There is a significant electric field as we increase height even in fair weather. Even though that is a very high impedance field, it doesn't take air movement to charge a high conductor that is well-insulated.

> I have offered an alternative explanation for why, absent corona, higher
> antennas might well experience more noise.

True, but a height change of just a few meters on a building or tower hundreds of meters tall makes a big difference as do sharp compared to blunt points on an antenna.

During a rainstorm, when most people complain about corona, droplets from the very same sources are hitting lower and upper antennas. The noise does NOT follow the pattern or rate of raindrops hitting the antenna, and the upper antenna is always significantly noisier than the lower antenna.

> Actual precipitation (rain, snow, hail) is not needed for
P-noise.

Of course not. It is a voltage gradient problem.

> Moving dust particles can carry charge and become charged. The noise does
> follow the "pattern of the particle rate."

I've never seen it do that. But I'll keep watching for it.

> P.S. Some months ago you asked about V antennas for low HF or MF use
> involving a 300 foot tower. I found that an interesting topic and did some
> analysis, which I tried to sent to you. Unfortunately, the E-mail address
> did not work.

That's because the email address listed by Google for me is a dead
address. If it was live, it would be useless with spam and virus.

73 Tom

3673. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 03:51:25 UTC
From: Mike Burch <Libertybell7@mchsi.com>
Message-ID: <19Nhg.22056$No1.19537@attbi_s71>
Source record: 58364
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Thanks for stepping up to the plate and admitting it. You got some
points for that. :-)

LLOYD THE LARDASS LOSER DAVIES wrote:
> I'm an inbred alabama hick and I hate CB.
>
>
> Lloyd Davies N0VFP
> Cow Cornholer
> Nutsackkk Gobbler
> Dumpster Dweller
> in Athens, Alabama
>
> <patk1212@gmail.com> wrote in message
> news:1149534276.955122.310050@i40g2000cwc.googlegroups.com...
>> Alot of people are telling me that CB is just for inbred hicks and that
>> I should replace the CB in my truck with a ham radio. What do you
>> thjink?
>>
>
>
>

3674. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 03:57:10 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <128f7uvfmnrlq36@corp.supernews.com>
Source record: 58365

Dear Tom:
Thank you for your ideas and the reference.

Let us leave it that we see things differently. Readers have the
ability to learn from contrasting each of our viewpoints.

I have always included my E-mail address in my communications.

I must to bed - tomorrow is the last lab day of the semester and I
anticipate many questions directed to the proximate final exams.

73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
<w8ji@akorn.net> wrote in message
news:1149737733.436349.216110@f6g2000cwb.googlegroups.com...
> J. Mc Laughlin wrote:
>
> > It appears that two noise mechanisms exist. The two are P-noise and
> > corona noise. A receiver will experience close to white noise in both
> > cases. However, corona noise tends to be accompanied by sudden stops
and
> > starts and P-noise starts with a sequence of perceptibly time spaced
pops
> > that increase in rate.
>
> Pops are caused by something charging and flashing over. All it takes
> to eliminate pops is a leak resistance or a leak choke slow enough to
> keep the antenna from charging.
>
> I've never heard the slow popping noise called P-static by anyone I
> know, but that doesn't say some people don't call it that.
>
> I have dipole high in the air, and on a clear day with a fair breeze
> they will knock someone right on their butt if the feeder is unhooked
> and the antenna allowed to charge. It does that dust or no dust,
> although nasty weather seems to greatly increase charge rate.
>
> It's easy to see why that happens.
>
> http://www.who.int/peh-emf/publications/3_EHC_232_Sources_and_Exposure.pdf
>
> There is a significant electric field as we increase height even in
> fair weather. Even though that is a very high impedance field, it

> doesn't take air movement to charge a high conductor that is
> well-insulated.
>
> > I have offered an alternative explanation for why, absent corona,
higher
> > antennas might well experience more noise.
>
> True, but a height change of just a few meters on a building or tower
> hundreds of meters tall makes a big difference as do sharp compared to
> blunt points on an antenna.
>
> During a rainstorm, when most people complain about corona, droplets
> from the very same sources are hitting lower and upper antennas. The
> noise does NOT follow the pattern or rate of raindrops hitting the
> antenna, and the upper antenna is always significantly noisier than the
> lower antenna.
>
> > Actual precipitation (rain, snow, hail) is not needed for
> P-noise.
>
> Of course not. It is a voltage gradient problem.
>
> > Moving dust particles can carry charge and become charged. The noise
does
> > follow the "pattern of the particle rate."
>
> I've never seen it do that. But I'll keep watching for it.
>
> > P.S. Some months ago you asked about V antennas for low HF or MF use
> > involving a 300 foot tower. I found that an interesting topic and did
some
> > analysis, which I tried to sent to you. Unfortunately, the E-mail
address
> > did not work.
>
> That's because the email address listed by Google for me is a dead
> address. If it was live, it would be useless with spam and virus.
>
> 73 Tom
>

3675. Re: Caught Sending Morse (was Give up CB for ham?)

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 04:14:28 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1149740068.815501.292630@h76g2000cwa.googlegroups.com>
Source record: 58366
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

A friend of mine and a high school classmate got caught doing the same
thing. Some very creative descriptions of the teachers'
extracurricular activities, until one of the teachers turned out to be
a ham...

Showed them the piece of paper he was copying on :-)

73
Dan
N3OX

Caveat Lector wrote:
> During long boring meetings at an Aerospace company, my buddy and I would
> send Morse by pencil taps, sharp tap was a dit and a tap-scrape was a dah.
> Worked well until a new manager gave his fist talk assuring us nothing would
> change - we tapped out BS.
>
> After the meeting, the new manager asked my buddy and I to stay for a moment
> after the meeting,
>
> With a smile, he sed Hi guys -- I'm W≠XYZ
>
> Real call sign disguised to protect the guilty (;-)
>
> --
> CL -- I doubt, therefore I might be !
>
>
>
>
>
>
> "kd5sak" <kd5sak@sbcglobal.net> wrote in message
> news:EJshg.40736$fb2.8847@newssvr27.news.prodigy.net...
> >
> > "Cecil Moore" <mycall@hotmail.com> wrote in message
> > news:qLrhg.39959$4L1.32138@newssvr11.news.prodigy.com...
> >> clfe wrote:
> >> How do you send a 'dash' by tapping on a pipe? You
> >> apparently could revolutionize prison communications
> >> by providing an answer to that simple question.
> >> --
> >> 73, Cecil http://www.qsl.net/w5dxp
> >

> > How about a fast double tap on the pipe (or bar) to signify a "dash"? It's
> > not an elegant solution, but could be made to work. Those guys are
> > probably not gonna try for 30 characters per minute anyway.
> >
> > Harold
> > KD5SAK
> >

3676. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 06:05:09 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <82ff825hutrj9r42aked488a2faasvqahu@4ax.com>
Source record: 58367
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

On 7 Jun 2006 19:34:53 -0700, "George" <forvmman@msn.com> wrote:

>
>Chris W wrote:
>> Can anyone tell me what the official name of the putty they use to seal
>> the holes you run your coax through so bugs don't crawl in the wall or
>> water doesn't get in? I like to get all my hardware type items from
>> mcmaster.com. I'm sure they have it, if I just know what it is called I
>> can find it on their website.
>>
>>
>>
>> --
>> Chris W
>> KE5GIX
>>
>
>George
>WB3HUH SAYS:
>
>Try DOW Chemical's "Great Stuff ", a "Tripple Expanding Polyurethane
>Foam Sealant

I'm surprised to see Dow with such a product when it competes with Dow
Corning's compounds which are sold under the DAP as well as Dow
Corning names.

>This comes in a paint spray size can and is applied withan attachable
>tube.
>It sticks to everything, as it goes in as a liquid then expands to fill
>even large holes.
>It firms up and seals tight. Cable companies around here use it. Even
>works well on cinder block
>
The various forms of expandable foam are easier to use, and to me work
far better than the putty and self vulcanizing tape. The Silastic
RTVs (TM) work well, but may be a bear to get out.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com
>
>
>> Gift Giving Made Easy

>> Get the gifts you want &
>> give the gifts they want
>> One stop wish list for any gift,
>> from anywhere, for any occasion!
>> http://thewishzone.com

3677. impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 06:22:48 UTC
From: kretko <kretko@interia.pl>
Message-ID: <e68fggdnm2@nemesis.news.tpi.pl>
Source record: 58368

Hello !

Im looking for a formula impedance of conductor between two ground plane.

```
---------
*
h1
*
p
*
h2
*
---------
```

```
p -conductor
h1 = h2
```

Thank you for your help !

Goodlack ! ! !

3678. impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 06:48:46 UTC
From: kretko <kretko@interia.pl>
Message-ID: <e68h17$gl3$2@nemesis.news.tpi.pl>
Source record: 58369

Hello !

Im looking for a formula impedance of conductor between two ground plane.

```
---------
*
h1
*
p
*
h2
*
---------
```

p -conductor
h1 = h2

Thank you for your help !

Goodlack ! ! !

3679. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 06:50:04 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1149749404.567302.240520@u72g2000cwu.googlegroups.com>
Source record: 58370
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

Slow Code wrote:
> No more automatic renewals. Individuals must retest and pass all elements
> required for their license class.
>
>
> The passing score for written exams needs to be raised to 85%.
>
>
> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
>
> Make the no-code Tech license one year non-renewable.
>
>
> sc
why do you think the ARRL could do anything to affect thesechanges yu
want

the FCC doesn't listen to them anymore anyone that read the NPRM knows
the ARRL is all but out of the loop and certainly not in the drivers
seata anymore

3680. Re: impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 06:58:04 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1149749884.322484.315580@y43g2000cwc.googlegroups.com>
Source record: 58371

What shape is the conductor? If it is a rectangular cross-section, do
a search on the web for "stripline impedance formula" and you should
find what you are looking for. If it's a round wire, diameter d and
symmetrically spaced between two grounded plates separated by h, and if
d < .75h, to a reasonable approximation,

Z0 = 60*ln(4h/pi*d)

(per "Reference Data for Engineers"; my suspicion is that Z0 =
60*cosh^-1(2h/pi*d) is exact for lossless line, but I won't try to
prove it at the moment.) Divide by sqrt(relative dielectric constant)
if the dielectric isn't air or vacuum.

Cheers,
Tom

kretko wrote:
> Hello !
>
> Im looking for a formula impedance of conductor between two ground plane.
>
> _________
> *
> h1
> *
> p
> *
> h2
> *
> _________
>
> p -conductor
> h1 = h2
>
> Thank you for your help !
>
> Goodlack ! ! !

3681. Re: impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 07:08:36 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1149750516.658119.273570@j55g2000cwa.googlegroups.com>
Source record: 58372

I just posted suggesting that z0=60*cosh^-1(2h/pi*d) might be the exact
formula for the impedance. That is clearly wrong; don't use it.

Cheers,
Tom

K7ITM wrote:
> What shape is the conductor? If it is a rectangular cross-section, do
> a search on the web for "stripline impedance formula" and you should
> find what you are looking for. If it's a round wire, diameter d and
> symmetrically spaced between two grounded plates separated by h, and if
> d < .75h, to a reasonable approximation,
>
> Z0 = 60*ln(4h/pi*d)
>
> (per "Reference Data for Engineers"; my suspicion is that Z0 =
> 60*cosh^-1(2h/pi*d) is exact for lossless line, but I won't try to
> prove it at the moment.) Divide by sqrt(relative dielectric constant)
> if the dielectric isn't air or vacuum.
>
> Cheers,
> Tom
>
> kretko wrote:
> > Hello !
> >
> > Im looking for a formula impedance of conductor between two ground plane.
> >
> > _________
> > *
> > h1
> > *
> > p
> > *
> > h2
> > *
> > _________
> >
> > p -conductor
> > h1 = h2
> >
> > Thank you for your help !
> >
> > Goodlack ! ! !

3682. Re: Caught Sending Morse (was Give up CB for ham?)

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 08:26:09 UTC
From: nm5k@wt.net
Message-ID: <1149755169.804450.201910@i40g2000cwc.googlegroups.com>
Source record: 58373
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

n3ox.dan@gmail.com wrote:
> A friend of mine and a high school classmate got caught doing the same
> thing. Some very creative descriptions of the teachers'
> extracurricular activities, until one of the teachers turned out to be
> a ham...

Passing notes in school is how I first learned the code. Took about two
weeks to memorize all the letters so I didn't need a cheat sheet.
I never got caught though. :/
MK

3683. Re: Yet another 6m 3el Quad question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 08:41:34 UTC
From: nm5k@wt.net
Message-ID: <1149756094.222719.119930@f6g2000cwb.googlegroups.com>
Source record: 58374

Ken Bessler wrote:
> My Quad is all built and I'm waiting or FedEx to deliver
> my rotor. I built the quad out of wood, with a 1-1/4" dia
> pine boom and 4' mast plus 1/4"x48" spruce dowels for
> spreaders. I used insulated 16g stranded wire for the
> elements. All the wood is either painted or treated with
> sealer.
>
> Problem is I just broke a spreader moving the antenna and
> I'm worried about how fragile the whole design is. Would
> the performance change much if I used 1/4" aluminum rods
> instead? Maybe I should just get some fiberglass resin and
> paint the spreaders with several coats? How about wrapping
> them in re-enforced boxers tape (the good stuff with fibers
> in the tape)?
>
> Thanks for the help, guys....
>
> --
> 73's de Ken KG0WX - Kadiddlehopper #11808,
> Flying Pigs #-1055, Grid EM17io, FT-857D, AL-84,
> Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B

Dunno...1/4 inch dowels sound kind of thin.. I don't know about
metal spreaders. I've never tried it. Might work ok, as long as they
were not a resonant length, or overly coupling to the loop wires.
The resin probably would help stiffen them up a bit. "wood"
Might help, as long as the dowels don't flex enough to shatter the
glass coating, and cause it to crack away.
These problems are a large reason why I don't mess with quads
much. Lots more work, and design considerations with a 3d object
vs a 2d like a yagi. So being the lazy bastard I basically am, I use
almost all yagi's vs quads. So much easier to deal with, being most
of my yagi's are basically one piece with the elements grounded to
the boom. Not much to break or go wrong, unless something falls
on it... :/ On 6m, I use a 3 el yagi , made completely of copper
tubing. It's all one piece, plumbers delight , with the elements
brazed directly to a copper boom. Even the gamma match tube is
3/8 copper tube.
MK

3684. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 12:26:51 UTC
From: Cecil Moore <w5dxp@hotmail.com>
Message-ID: <1149769611.319099.279910@j55g2000cwa.googlegroups.com>
Source record: 58375

w8ji@akorn.net wrote:
> J. Mc Laughlin wrote:
> > Moving dust particles can carry charge and become charged. The noise does
> > follow the "pattern of the particle rate."
>
> I've never seen it do that. But I'll keep watching for it.

In Arizona, the harder the wind blew on a clear day, the shorter the
length of time between arcs on my coax connector. In a high wind, it
sounded something like the rat-a-tat of a machine gun.
--
73, Cecil, W5DXP

3685. Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 12:42:37 UTC
From: Mystery.DXer@yahoo.com
Message-ID: <1149770557.629987.141180@i40g2000cwc.googlegroups.com>
Source record: 58226

Buyer Beware
I have read all the reviews and I am wondering if they are about the same antenna I purchased. I bought the Cobra junior antenna and followed the directions for installation. The antenna is 50ft in the air in a flat top configuration. When I hooked it up to my radio, it would not tune on segments of certain bands, most noticeably 75/80. I called Joe to get some help and was told that my radio, which has a built in tuner would not accept more than a certain level of SWR and was told to trim the twinlead back 19 feet. I did and while some of the problem was solved, I continued to have problems on 75/80. I emailed Joe to ask for further assistance and was told that the next step was to buy a tuner extender (price $60). Not the answer I wanted to hear. If in fact this kind of problem exists with radios that have built in tuners, prospective buyers should know that in advance. For the cost of the antenna and now the tuner extender, I could have bought a better antenna, which is what I intend to do. I am not pleased with this antenna and would not recommend it especially to someone who has a radio with a built in tuner and intends to use it. Additionaly, the performance on 40 seems to be very good. It seems to under perform on 20. Can't tell on 75/80 because I can't tune the band.

KC2GWK

3686. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 12:56:49 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <077g82l0l7crfa52216an302bqf7icaiql@4ax.com>
Source record: 58227
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

No.
I know a fellow who works in Tech support for a big computer company
who says they get questions likes this all the time.

There are several reasons the product has failed to meet your
expectations.
1- you have likely installed it upside down.
2- Your antenna is defective, the product is not meant to be used with
a defective antenna.
3- Exposure to weather has nullified your warranty.
4- There is an improved replacement product available and you may wish
to upgrade at a special price.

de W8CCW John

On Wed, 07 Jun 2006 20:26:26 GMT, cq-dx@arrl.net (New Ham) wrote:

>Did I get ripped off?
John Ferrell W8CCW

3687. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 13:32:56 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1149773576.391521.292660@h76g2000cwa.googlegroups.com>
Source record: 58228
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

David G. Nagel wrote:
> John S. wrote:
> > Or looking for a left-handed crescent wrench and fetching a bucket of
> > prop wash.
>
> The problem with this joke is that the wrench exhists. Handedness in a
> wrench is determined by which thumb closes the jaws. Right thumb right
> hand wrench, left thumb left handed wrench.
>
> I have a left handed crescent type wrench. Where was it made?
> POLAND of course.
>
> Wrench available for inspection.
>

You had me going there for a moment.....

I know...one side is labeled L and the flip side is labeled R.

3688. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 13:33:09 UTC
From: Not Cocksucker Lloyd <not_time_turd_lloyd@yahoo.com>
Message-ID: <1149773589.092481.119850@i39g2000cwa.googlegroups.com>
Source record: 58229
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

sodomized by an old freind wrote:
> Not Cocksucker Lloyd wrote:
> > assraped by an old freind wrote:
> > > J. D. B. wrote:
> > > > That is a very good point that I never considered. In thinking about it,
> > > > it makes perfect sense. "Mode Welfare" - too funny.
> > > well thank you for making my day Sir
> > >
> > > although the phrase isn't mine it cames from the regulars here on RRAp
> > > from back in 1990's
> > >
> > It figures you'd have to plagiarize it, Markie. Dumbass!
> you are no one to talk you <whaaaaaaaaaaaH!!!>

Poor Marqueer, whining and crying.....

3689. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 13:42:59 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1149774179.543305.288650@f6g2000cwb.googlegroups.com>
Source record: 58230
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Brian Denley wrote:
> David G. Nagel wrote:
> > John S. wrote:
> >> Or looking for a left-handed crescent wrench and fetching a bucket of
> >> prop wash.
> >
> > The problem with this joke is that the wrench exhists. Handedness in a
> > wrench is determined by which thumb closes the jaws. Right thumb right
> > hand wrench, left thumb left handed wrench.
> >
> > I have a left handed crescent type wrench. Where was it made?
> > POLAND of course.
> >
> > Wrench available for inspection.
> >
> > Dave WD9BDZ
> >
> >
> At 23, I took a job as a young engineer at a place that had previously been
> a gyroscope manufacturer. As the new guy, they asked my to deliver a
> briefcase to the boss' office and (you guessed it) there was a spinning gryo
> in the briefcase. I got a big surprise when I tried to turn a corner in the
> corrider and the briefcase kept going straight ahead! A great 'new guy'
> trick.
> --

Or send the new guy in engineering to supply for a pressurized
container of Dihydrogen Monoxide.

Or send the new finance guy to get the difference finder.

3690. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 13:45:40 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <128gag4l6ir25e0@corp.supernews.com>
Source record: 58231
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

John S. wrote:
>
>
> David G. Nagel wrote:
>
>>John S. wrote:
>>
>>>Or looking for a left-handed crescent wrench and fetching a bucket of
>>>prop wash.
>>
>>The problem with this joke is that the wrench exhists. Handedness in a
>>wrench is determined by which thumb closes the jaws. Right thumb right
>>hand wrench, left thumb left handed wrench.
>>
>>I have a left handed crescent type wrench. Where was it made?
>>POLAND of course.
>>
>>Wrench available for inspection.
>>
>
>
> You had me going there for a moment.....
>
> I know...one side is labeled L and the flip side is labeled R.
>
No. This is an honest to god left handed crescent style wrench. Hold in
left hand and close the jaws using the left thumb.

Dave WD9BDZ

3691. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 13:45:41 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1149774341.518961.129650@i40g2000cwc.googlegroups.com>
Source record: 58232
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

```
jawod wrote:
> John S. wrote:
> > New Ham wrote:
> >
> >>Did I get ripped off?
> >
> >
> > You might try a Stetson.
> >
> Try a Dunce Cap (low capacitance) attached to your screwdriver and
> manually adjust until your dip meter reads moron :)

Uh oh...feeling a bit testy today???
```

3692. measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 14:03:05 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <hsqdnZGDCqPmsxXZnZ2dnUVZ_oGdnZ2d@comcast.com>
Source record: 58233

Good morning,

This question is: Taking measurements at the antenna and what they mean?

The antenna is a loaded vertical over a set of untuned radials. The feed is 50 Ohm coax with a 1:1 isolation transformer at the antenna. I intend to run a separate coax for measurement purposes to the feed point, stimulate the antenna with a 10 mw signal at the operating frequency, and measure the voltage across the antenna feed and the ground connection.

Will the voltages indicate the relative RF impedance of antenna (including loading coil) versus the ground? If the ground were near perfect the voltage at the feedpoint should be close to zero. These voltages should indicate the power disapation difference between the antenna and the ground.

Thanks,
Dan

3693. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 14:39:07 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <OtWdnSwQsZAQqxXZnZ2dnUVZ_tednZ2d@comcast.com>
Source record: 58234
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

"David G. Nagel" <nagel@core.com> wrote in message
news:128gag4l6ir25e0@corp.supernews.com...
> John S. wrote:
>>
>>
>> David G. Nagel wrote:
>>
>>>John S. wrote:
>>>
>>>>Or looking for a left-handed crescent wrench and fetching a bucket of
>>>>prop wash.
>>>
>>>The problem with this joke is that the wrench exhists. Handedness in a
>>>wrench is determined by which thumb closes the jaws. Right thumb right
>>>hand wrench, left thumb left handed wrench.
>>>
>>>I have a left handed crescent type wrench. Where was it made?
>>>POLAND of course.
>>>
>>>Wrench available for inspection.
>>>
>>
>>
>> You had me going there for a moment.....
>>
>> I know...one side is labeled L and the flip side is labeled R.
>>
> No. This is an honest to god left handed crescent style wrench. Hold in
> left hand and close the jaws using the left thumb.

I have a metric one :-)

3694. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 14:46:29 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <9LWhg.13749$523.13324@trnddc07>
Source record: 58235

New Ham wrote:
> Did I get ripped off?
>

No. You simply overlooked ordering the optional umbrella covering material
to go with it.

3695. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 16:03:33 UTC
From: Reloader <Reloader.293r1x@news.radiobanter.com>
Message-ID: <Reloader.293r1x@news.radiobanter.com>
Source record: 58241

```
John - KD5YI Wrote:
> New Ham wrote:
> Did I get ripped off?
>
>
>
> Old Office supply joke. Goo get the paper stetcher. But I answered,
> you want the one in the maintenance shop or the one in Mr. Anderaon's
> (the owner's) Office. They VERY QUICKLY told me it was a joke. I told
> them, "I know." Hated me ever since.

--
Reloader
```

3696. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 16:24:05 UTC
From: wood@itd.nrl.navy.mil
Message-ID: <wood-0806061224210001@jbw-mac.itd.nrl.navy.mil>
Source record: 58236

In article <hsqdnZGDCqPmsxXZnZ2dnUVZ_oGdnZ2d@comcast.com>, dansawyeror
<dansawyeror@comcast.net> wrote:

> Good morning,
>
> This question is: Taking measurements at the antenna and what they mean?
>
> The antenna is a loaded vertical over a set of untuned radials. The feed
is 50
> Ohm coax with a 1:1 isolation transformer at the antenna. I intend to run a
> separate coax for measurement purposes to the feed point, stimulate the
antenna
> with a 10 mw signal at the operating frequency, and measure the voltage
across
> the antenna feed and the ground connection.
>
> Will the voltages indicate the relative RF impedance of antenna (including
> loading coil) versus the ground? If the ground were near perfect the
voltage at
> the feedpoint should be close to zero. These voltages should indicate
the power
> disapation difference between the antenna and the ground.
>
> Thanks,
> Dan

Hello, Dan. If we have a quarter wavelength monopole the voltage at the feedpoint is at a minimum but definitely not zero even if we had a perfectly electrically conducting (PEC) ground. If we had a PEC ground and a monopole with no resistive (ohmic) losses then the impedance seen at the feedpoint at resonance would be about 37 ohms resistive. The 37 ohms is the radiation resistance of the antenna. This is where the RF power gets "dissipated" when that power is radiated into free space.

If we use an electrically short antenna and put in say, a loading coil at the feedpoint to resonate the monopole at the desired frequency, we are looking at a radiation resistance of less than 37 ohms. It could be quite small depending on how short the antenna is. If in addition we have finite losses in the monopole structure, loading coil and in the ground/radials, we are measuring a resistance that is the sum of all ohmic losses and radiation resistance. And that's a classic problem - how to separate out all these losses. Without making radiation pattern measurements (to obtain total power radiated) about all you can do is calculate the radiation resistance for a PEC monopole fed against a PEC ground (or use an electromagnetics computation program like NEC to model

the structure.). The measured value less the calculated radiation resistance would reflect the ohmic losses. And you still don't know how much of this is ground loss without knowledge of the other ohmic losses.

There exits another direct measurement technique (Wheeler Cap) for determing antenna efficiency that can be readily applied to antennas in the GHz range but is not practical at HF because of the scaling factor (compare the size of 2.4 GHz yagi or log-periodic with the same type at 14 MHz to put things in perspective). Sincerely,

John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375-5337

3697. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 16:24:27 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1149783867.303127.313090@y43g2000cwc.googlegroups.com>
Source record: 58237
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Not Cocksucker Lloyd wrote:
> sodomized by an old freind wrote:
> > Not Cocksucker Lloyd wrote:
> > > assraped by an old freind wrote:
> > > > J. D. B. wrote:
> > > > > That is a very good point that I never considered. In thinking about it,
> > > > > it makes perfect sense. "Mode Welfare" - too funny.
> > > > well thank you for making my day Sir
> > > >
> > > > although the phrase isn't mine it cames from the regulars here on RRAp
> > > > from back in 1990's
> > >
> > > It figures you'd have to plagiarize it, Markie. Dumbass!
> > you are no one to talk you <whaaaaaaaaaaaH!!!>
>
> Poor Marqueer, whining and crying.....
can you post at all on topic or can you just harrass the real human in
the forum
get help wismen
```

3698. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 16:30:08 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <kgYhg.42344$fb2.11559@newssvr27.news.prodigy.net>
Source record: 58238
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

Roger wrote:
>
>
> The various forms of expandable foam are easier to use, and to me work
> far better than the putty and self vulcanizing tape. The Silastic
> RTVs (TM) work well, but may be a bear to get out.
>
> Roger Halstead (K8RI & ARRL life member)
> (N833R, S# CD-2 Worlds oldest Debonair)
> www.rogerhalstead.com

Altho, these may be easier to use than dux seal,
beware- if the stuff smells like Vinagar (as in
Ascetic acid) , you may be contaminateing your
coax, as is my understanding. And, MOST RTV's
have this feature (contaminateing your coax)!
Not a good situation! as info, Jim NN7K

3699. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 18:28:06 UTC
From: gene@csl.uiuc.edu
Message-ID: <e69q7m$f9s$1@news.ks.uiuc.edu>
Source record: 58239

.....some "seat-of-the-pants" observations (to use an old aviator expression):
To judge the performances of two similar-sized mobile installations, note the value of the shunt-C required across the feed-coax to provide good SWR 50 ohm match (or shunt-L if that option is used).
The more C required (less capacitive reactance), the better [or similarly, the less L (less inductive reactance), the better].
This method of match is actually a version of the classic "L-match" where the mobile whip with its loading coil represents either R in series with Inductance, OR R in series with Capacitance at the feedpoint....depending on whether the loading coil is tuned slightly Below, or Above the resonant frequency. The shunt C (or L) is the third element in the L-Match Equation. (Many readers will already know this)
Since standard antenna equations calculate the actual radiation resistance to be very small in electrically- short mobile antennas, we know that with a perfect ground, and zero-loss mast and coil, the feed-point resistance would be only the radiation resistance of a few ohms, perhaps 2 to 5 (W8JI's web page calculates a 15 ft. antenna on 1.8 MHz to be only 1.22 ohms).
Therefore, if the mobile feedpoint was found to have low SWR 50 ohm match with no shunt element, that would be very bad news.....it would mean that perhaps 2 parts out of 50 were radiated, and the other 48 parts were loss! And of course, here no shunt C (or L) would be required which is the worst news.
Conversely, back to "seat-of-the-pants thinking", the more C (or smaller L) required, the smaller the feed-point impedance had to have been....meaning less loss resistance included at the feedpoint.

3700. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 19:58:48 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <Uj%hg.7725$ED2.4047@bignews2.bellsouth.net>
Source record: 58240
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

"Jim - NN7K" <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in message
news:kgYhg.42344$fb2.11559@newssvr27.news.prodigy.net...
>
>
> Roger wrote:
>>
>>
>> The various forms of expandable foam are easier to use, and to me work
>> far better than the putty and self vulcanizing tape. The Silastic
>> RTVs (TM) work well, but may be a bear to get out. Roger Halstead (K8RI
>> & ARRL life member)
>> (N833R, S# CD-2 Worlds oldest Debonair)
>> www.rogerhalstead.com
>
> Altho, these may be easier to use than dux seal, beware- if the stuff
> smells like Vinagar (as in
> Ascetic acid) , you may be contaminateing your coax, as is my
> understanding. And, MOST RTV's
> have this feature (contaminateing your coax)!
> Not a good situation! as info, Jim NN7K

Not usually a problem when going through a wall unless the outer insulation
is broken, but RTV is not may favorite for this. Plain old caulk works great
unless you have a big void to fill.

3701. Re: sealing coax holes in outside wall

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 21:13:19 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <lf4h82tt2lusvna6rvapoip4dnb4fn0sqm@4ax.com>
Source record: 58242
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

On Thu, 08 Jun 2006 16:30:08 GMT, Jim - NN7K
<nn7kexk7zfg@NOSPAMsbcglobal.net> wrote:

>
>
>Roger wrote:
>>
>>
>> The various forms of expandable foam are easier to use, and to me work
>> far better than the putty and self vulcanizing tape. The Silastic
>> RTVs (TM) work well, but may be a bear to get out.
>>
>> Roger Halstead (K8RI & ARRL life member)
>> (N833R, S# CD-2 Worlds oldest Debonair)
>> www.rogerhalstead.com
>
>Altho, these may be easier to use than dux seal,
>beware- if the stuff smells like Vinagar (as in
>Ascetic acid) , you may be contaminateing your
>coax, as is my understanding. And, MOST RTV's
>have this feature (contaminateing your coax)!
>Not a good situation! as info, Jim NN7K

Jimmie already go this one, but if the seal is pretty much out in the
open it will not contaminate the coax jacket. Normally the stuff
won't bother the jacket any way, just don't apply directly to copper
or aluminum braid as the Copper will turn green.

OTOH there are versions available in Silicon that are
non-contaminating and there are also latex/water based versions. Most
of the DAP (TM) (made by DC) is water based although you can specify
Silicon. Once cured there is not a great deal of difference although
there are some.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com

3702. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 21:18:28 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44889424.5070305@fuse.net>
Source record: 58244
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

```
John S. wrote:
> jawod wrote:
>
>>John S. wrote:
>>
>>>New Ham wrote:
>>>
>>>
>>>>Did I get ripped off?
>>>
>>>
>>>You might try a Stetson.
>>>
>>
>>Try a Dunce Cap (low capacitance) attached to your screwdriver and
>>manually adjust until your dip meter reads moron :)
>
>
> Uh oh...feeling a bit testy today???
>
Not, not at all...didn't you see my :) ? No offense intended.
```

3703. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 21:18:31 UTC
From: cq-dx@arrl.net
Message-ID: <dofore-sldfk3-sdfpsk-345rods@news.arrl.net>
Source record: 58243
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

In article <1149774341.518961.129650@i40g2000cwc.googlegroups.com>, "John S."
<hjsjms@cs.com> wrote:
>
>jawod wrote:
>> John S. wrote:
>> > New Ham wrote:
>> >
>> >>Did I get ripped off?
>> >
>> >
>> > You might try a Stetson.
>> >
>> Try a Dunce Cap (low capacitance) attached to your screwdriver and
>> manually adjust until your dip meter reads moron :)
>
>Uh oh...feeling a bit testy today???

What good's a hat if it don't keep the antenna dry? I think I'll keep it
though, for some odd reason my SWR's are better.

3704. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 21:26:48 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <3t4h82p7805tv1vqaq7hqcbturep8s49hc@4ax.com>
Source record: 58245

On Thu, 08 Jun 2006 07:03:05 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>Ohm coax with a 1:1 isolation transformer at the antenna. I intend to run a
>separate coax for measurement purposes to the feed point, stimulate the antenna
>with a 10 mw signal at the operating frequency, and measure the voltage across
>the antenna feed and the ground connection.

You seem to be implying more than one measurement, and that with those measurements you can separately determine (radiation resistance + loss resistance in the vertical and coil) and loss resistance in the ground system.

Can you elaborate?

Perhaps a block diagram of your measurement setup might reveal what you are thinking. (If you need a tool for drawing schematics in ascii text, Google for AACircuit. Alternatively, sketch it, scan it and publish it on a web site somewhere... DON'T attach it to your news post.)

Owen
--

3705. 3 Killed in Fall From Iowa TV Tower

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 21:38:16 UTC
From: "W.Henry" <whenry21214@nospamyahoo.com>
Message-ID: <cN0ig.18010$9c7.4290@trnddc06>
Source record: 58246
Body handling: Inline uuencoded payload not displayed: dot_clear.gif

3 Killed in Fall From Iowa TV Tower

Jun 01
http://www.breitbart.com/news/2006/06/01/D8HV79B00.html

OAKLAND, Iowa
Three workers fell 1,100 feet Wednesday from an Iowa Public Television tower and died, officials said.

Bill Hayes, director for engineering at IPTV, said the crew was replacing strobe lights when the accident happened.

"They were up fairly high when something went wrong and all three members of the crew fell," Hayes said. "We don't know what the actual cause was."

He said a fourth member of the crew was working on the ground, operating a winch, hoisting parts to the crew.

"We can only assume that the safety equipment failed," said Pottawattamie County Sheriff Jeff Danker.

The men _ ages 57, 27 and 19 _ were pronounced dead at the scene. They worked for Deter Tower Service, of Grimes. Their names weren't immediately released.

A woman answering the phone at Deters said no one was available to talk about the accident. She declined further comment.

--
Humble to the humble , inflexible to the arrogant .

[Inline uuencoded payload not displayed: dot_clear.gif]

3706. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 21:46:03 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <128h6krkcmme48c@corp.supernews.com>
Source record: 58247
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

John S. wrote:

> Brian Denley wrote:
>
>>David G. Nagel wrote:
>>
>>>John S. wrote:
>>>
>>>>Or looking for a left-handed crescent wrench and fetching a bucket of
>>>>prop wash.
>>>
>>>The problem with this joke is that the wrench exhists. Handedness in a
>>>wrench is determined by which thumb closes the jaws. Right thumb right
>>>hand wrench, left thumb left handed wrench.
>>>
>>>I have a left handed crescent type wrench. Where was it made?
>>>POLAND of course.
>>>
>>>Wrench available for inspection.
>>>
>>>Dave WD9BDZ
>>>
>>>
>>
>>At 23, I took a job as a young engineer at a place that had previously been
>>a gyroscope manufacturer. As the new guy, they asked my to deliver a
>>briefcase to the boss' office and (you guessed it) there was a spinning gryo
>>in the briefcase. I got a big surprise when I tried to turn a corner in the
>>corrider and the briefcase kept going straight ahead! A great 'new guy'
>>trick.
>>--
>
>
>
> Or send the new guy in engineering to supply for a pressurized
> container of Dihydrogen Monoxide.
>
Careful that stuff is extremely deadly if inhaled.

> Or send the new finance guy to get the difference finder.
>

3707. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 21:47:11 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <128h6n0a56nj295@corp.supernews.com>
Source record: 58248

Reloader wrote:

> John - KD5YI Wrote:
>
>>New Ham wrote:
>>Did I get ripped off?
>>
>>
>>
>>Old Office supply joke. Goo get the paper stetcher. But I answered,
>>you want the one in the maintenance shop or the one in Mr. Anderaon's
>>(the owner's) Office. They VERY QUICKLY told me it was a joke. I told
>>them, "I know." Hated me ever since.
>
>
>
Why do you hate yourself?

3708. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 22:22:03 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1149805323.650308.61230@i40g2000cwc.googlegroups.com>
Source record: 58250
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

```
jawod wrote:
> John S. wrote:
> > jawod wrote:
> >
> >>John S. wrote:
> >>
> >>>New Ham wrote:
> >>>
> >>>
> >>>>Did I get ripped off?
> >>>
> >>>
> >>>You might try a Stetson.
> >>>
> >>
> >>Try a Dunce Cap (low capacitance) attached to your screwdriver and
> >>manually adjust until your dip meter reads moron :)
> >
> >
> > Uh oh...feeling a bit testy today???
> >
> Not, not at all...didn't you see my :) ? No offense intended.

Ooops...please accept my apology.
```

3709. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 22:25:41 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ao7h82dsdshtgemh4c0scg9jnnslr2mrn0@4ax.com>
Source record: 58249

On 8 Jun 2006 05:42:37 -0700, Mystery.DXer@yahoo.com wrote:

>Buyer Beware

Hmmm.

>same antenna I purchased. I bought the Cobra junior antenna and
>followed the directions for installation. The antenna is 50ft in the
>air in a flat top configuration. When I hooked it up to my radio, it
>would not tune on segments of certain bands, most noticeably 75/80. I
>called Joe to get some help and was told that my radio, which has a
>built in tuner would not accept more than a certain level of SWR and
>was told to trim the twinlead back 19 feet. I did and while some of the
>problem was solved, I continued to have problems on 75/80. I emailed
>Joe to ask for further assistance and was told that the next step was
>to buy a tuner extender (price $60). Not the answer I wanted to hear.
>If in fact this kind of problem exists with radios that have built in
>tuners, prospective buyers should know that in advance. For the cost of
>the antenna and now the tuner extender, I could have bought a better
>antenna, which is what I intend to do. I am not pleased with this
>antenna and would not recommend it especially to someone who has a
>radio with a built in tuner and intends to use it. Additionaly, the
>performance on 40 seems to be very good. It seems to under perform on
>20. Can't tell on 75/80 because I can't tune the band.

That all seems pretty reasonable though the explanation that the
"built in tuner would not accept more than a certain level of SWR" is
not a good way to express the limits of internal tuners, but it is an
explanation that would appeal to those with lesser knowledge.

Well, it looks like you have learned something that many of us know,
that the internal tuner in most radios has quite limited range and is
really for minor trimming of loads to enable the radio to develop
rated power (not to mention poor efficiency on the lowest bands).

Joe advertises honestly that the antenna will need a tuner for
operation on any frequency, perhaps he needs to spell out that what
manufacturers fit into a corner of a transceiver may not be up to the
task.

Frankly, I am wondering why your beef isn't equally with the
transceiver manufacturer for deceiving you with a tuner that isn't up
to the task.

I wonder what "better antenna" you have in mind? The short multiband
HF antenna that has low SWR(50) on all bands (since you have an issue
with tuners) and good performance is the holy grail of HF amateurs

that will provide you with challenge for the years ahead.

To some extent, the residual technical content in amateur radio is mating up system components that are compatible to form a working station.

Owen
--

3710. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 22:43:18 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <co9h82d7fejjh7ac87n63pe9lgkcuu1120@4ax.com>
Source record: 58251
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

ORIGINAL MESSAGE:

On Tue, 6 Jun 2006 09:36:21 -0400, "clfe" <Nospam@clfurent.com> wrote:

>I am of the opinion that a 5 WPM at least - should be kept on as a
>requirement - as someday - it may be needed. Think not? Say you're in the
>midst of an attack - of terrorism, a war on our homefront OR a large scale
>natural disaster, a microphone isn't working or available. You can key the
>radio but don't know code - now what? With code, even at 5 WPM - you could
>get some very important information to those needing it to help save you -
>to them. You could tell them WITH code, what is needed, exact whereabouts,
>how many people involved, etc..... Just clicking a mic pin with a wire
>won't tell anyone anything and could delay any help or a response big enough
>to do much good. In these times with the large scale disasters as we've seen
>and attacks - even for any said to be planned, NOW is a good time to WANT to
>know code. IT may save you..... It is one of those skills you learn -
>just like CPR or whatever - you hope you never have to use, but you're glad
>you have it - when you need it.

********** REPLY SEPARATOR **********

Your priorities are skewed. Since there are only so many hours
allotted to us, what would be a better way to spend your spare time:

1. Learning morse code for the above mike-failure scenario?
2. Stocking up food, water and ammo for the above mike-failure
scenario?

You have been reading too many stories of the valiant radio op on the
Titanic. Ain't gonna happen.

Bill, W6WRT
20 wpm Extra, but realistic about it

3711. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 22:45:28 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <i1ah82tjdddgjjvcsknsdnajpf5qmg40cs@4ax.com>
Source record: 58252
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

ORIGINAL MESSAGE:

On Tue, 6 Jun 2006 09:54:14 -0400, "clfe" <Nospam@clfurent.com> wrote:

>One other thing..... I cut my teeth on CB back when the FCC was busting
>CBers regularly for violations. I then got into Ham and Electronics.

********** REPLY SEPARATOR **********

Your CB origin is showing. "Ham" is an adjective, not a noun. One does
not "get into ham", one "gets into ham radio".

10-4?

Bill, W6WRT

3712. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 23:07:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <N42ig.20974$VE1.626@newssvr14.news.prodigy.com>
Source record: 58253
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Bill Turner wrote:
> You have been reading too many stories of the valiant radio op on the
> Titanic. Ain't gonna happen.

Seems the bullies are not all on SSB after all. Didn't the
Titanic's CW operator bully the California's CW operator to
such an extent that he turned off, turned in, and the rest
is history?
--
73, Cecil http://www.qsl.net/w5dxp

3713. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 23:08:38 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <W52ig.20975$VE1.4151@newssvr14.news.prodigy.com>
Source record: 58254
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Bill Turner wrote:
> "Ham" is an adjective, not a noun.

Are you a ham? :-)
--
73, Cecil http://www.qsl.net/w5dxp

3714. 2 element gem quad

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 23:19:31 UTC
From: mike <mikeg4khb@btinternet.com>
Message-ID: <lvbh82d8ekujrnhuaa05h65d88ng97oskl@4ax.com>
Source record: 58255

Hi All
Would anyone using a 2 element gem quad like to talk to me
about putting the antenna together

please reply direct
Thanks
73 de Mike G4KHB

3715. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 23:21:38 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <6i2ig.3313$o4.2436@newsread2.news.pas.earthlink.net>
Source record: 58256
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

Allodoxaphobia <bit-bucket@config.com> wrote in
news:slrne8eaj2.ueo.bit-bucket@shell.config.com:

> On Wed, 07 Jun 2006 15:03:27 -0400, Michael Coslo wrote:
>>
>> <-BIG snip->
>>
>> There may only be 2 hams left, but just imagine how superior they can
>> feel about themselves........
>
> And, the rec.radio.amateur... ng's will still suffer from trolls and
> off-topic postings.

I just knew none of you would take this serious and help. I bet you're
all democrats.

sc

3716. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 23:38:47 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1149809927.161803.107710@y43g2000cwc.googlegroups.com>
Source record: 58257
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

```
Slow Code wrote:
> Allodoxaphobia <bit-bucket@config.com> wrote in
> news:slrne8eaj2.ueo.bit-bucket@shell.config.com:
>
> > On Wed, 07 Jun 2006 15:03:27 -0400, Michael Coslo wrote:
> >>
> >> <-BIG snip->
> >>
> >> There may only be 2 hams left, but just imagine how superior they can
> >> feel about themselves........
> >
> > And, the rec.radio.amateur... ng's will still suffer from trolls and
> > off-topic postings.
>
>
>
> I just knew none of you would take this serious and help. I bet you're
> all democrats.
how much you want to bet and How would Colect my wininngs?
>
> sc
```

3717. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 23:50:08 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4488B7B0.2000303@fuse.net>
Source record: 58258
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

>
> Your CB origin is showing. "Ham" is an adjective, not a noun. One does
> not "get into ham", one "gets into ham radio".
>
> 10-4?
>
> Bill, W6WRT
>
Gee, Bill. That's mighty specific. But since you brought it up. "Ham"
can be used as a proper noun: "I'm a Ham". Not everyone goes to the
trouble of saying "ham radio operator".

It's also a sandwich.

3718. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-08 23:52:57 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4488B859.1050108@fuse.net>
Source record: 58259
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

>
> I just knew none of you would take this serious and help. I bet you're
> all democrats.
>
> sc

Nope, Communist. Every damn one of us.

Join us, comrade!

3719. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 00:14:16 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <W7KdnWZrCYjLIBXZnZ2dnUVZ_rSdnZ2d@comcast.com>
Source record: 58260

No antenna will work across the full 75/80 meter band with low enough VSWR to accommodate all radios. REASON: the bandwidth range +/- 13.3% centered on 3750 KHz to the band edges is excessive. If you cut the antenna for 3.9 MHz it most likely will not load up well below 3.7 MHz. A tuner is required!! PERIOD.

For comparison, the bandwidth range on 20 meters centered on 14.175 is only +/- 2.4%

Don't jump on condemning the antenna too soon. Do some more research and ask more questions regarding 75/80 meters broadband antennas and what "broadband" means.

/s/ DD, W1MCE

Mystery.DXer@yahoo.com wrote:

> Buyer Beware
> I have read all the reviews and I am wondering if they are about the
> same antenna I purchased. I bought the Cobra junior antenna and
> followed the directions for installation. The antenna is 50ft in the
> air in a flat top configuration. When I hooked it up to my radio, it
> would not tune on segments of certain bands, most noticeably 75/80. I
> called Joe to get some help and was told that my radio, which has a
> built in tuner would not accept more than a certain level of SWR and
> was told to trim the twinlead back 19 feet. I did and while some of the
> problem was solved, I continued to have problems on 75/80. I emailed
> Joe to ask for further assistance and was told that the next step was
> to buy a tuner extender (price $60). Not the answer I wanted to hear.
> If in fact this kind of problem exists with radios that have built in
> tuners, prospective buyers should know that in advance. For the cost of
> the antenna and now the tuner extender, I could have bought a better
> antenna, which is what I intend to do. I am not pleased with this
> antenna and would not recommend it especially to someone who has a
> radio with a built in tuner and intends to use it. Additionaly, the
> performance on 40 seems to be very good. It seems to under perform on
> 20. Can't tell on 75/80 because I can't tune the band.
>
> KC2GWK
>

3720. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 00:33:12 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <wu6dnVeKwv9UXBXZnZ2dnUVZ_vqdnZ2d@adelphia.com>
Source record: 58261

Dave wrote:
> No antenna will work across the full 75/80 meter band with low enough
> VSWR to accommodate all radios. REASON: the bandwidth range +/- 13.3%
> centered on 3750 KHz to the band edges is excessive. If you cut the
> antenna for 3.9 MHz it most likely will not load up well below 3.7 MHz.
> A tuner is required!! PERIOD.
>
> For comparison, the bandwidth range on 20 meters centered on 14.175 is
> only +/- 2.4%
>
> Don't jump on condemning the antenna too soon. Do some more research and
> ask more questions regarding 75/80 meters broadband antennas and what
> "broadband" means.

Be kind folks! You're all correct, but don't bash the guy's head in.

75 and 80 meters is indeed quite a range to cover, especially when it
is actually 85 to 75 meters in wl.

I'd buy a tuner that will handle open wire feed, lose the 4:1 balun,
and get on the air.

- 73 de Mike KB3EIA -

3721. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 00:38:46 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <u-idncZXl5yLXhXZnZ2dnUVZ_qmdnZ2d@adelphia.com>
Source record: 58262

Roy Lewallen wrote:
> Michael Coslo wrote:
>
>>
>> Back around the beginning of this thread a thought occurred to me,
>> and I'm surprised that no one else mentioned it.
>>
>> Unless we are planning on putting out ship on the great Salt lake,
>> of one of the few other salt water inland lakes or seas, we're going
>> to be putting the thing in the ocean.
>>
>> Immediately, one sees that if a ground is at the surface of the
>> water, at many points it will be 4 or more feet under the water. Dem
>> boats rock! There are moments that it will be quite a distance under
>> water, depending on the sea state.
>
>
> Use a bare wire, and the top few inches will do the job regardless of
> how much additional wire goes below the water. As I've said before,
> there's no harm in having additional wire below the water; it simply
> doesn't do anything useful.
>
> The problem is that as the boat rocks, the length of the wire to the
> ocean surface will vary in length, which will change the antenna's
> impedance. So a plate just inside or outside the bottom of the hull (or
> someplace that's always below the water line) would seem to me a better
> idea from a practical standpoint. Surely some boater who understood
> basic electromagnetics has thought about this and devised a method
> that's both practical and effective.
>
>> Depending on the load, the water line is going to be different,
>> and will be changing constantly as fuel and food is used.
>>
>> Certainly any capacitive coupling through the hull makes for a
>> variable capacitor? Does this have an effect?
>
>
> What will cause it to vary? In any case, just make the capacitance large
> enough so the reactance is always small compared to the ground
> impedance, then it won't matter.

Well, I could be wrong, but if one side of the capacitor is on the
inside of the hull, and the other side is the sea water, is not the
motion of the ship going to affect that? ships move up and down quite a

bit, and low draft ones can have a *lot* of that hull out of the water,
and then a few seconds later have water coming over the bow.

>> Will we eventually come to the conclusion that we can't put radios on
>> ships?? ;^)
>
>
> It wouldn't surprise me if some folks reach that conclusion. Millions
> firmly believe much more ridiculous things.

Hehe, I've seen that actually happen....

- 73 de Mike KB3EIA -

3722. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 00:40:11 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <4488C2F9.C6468917@earthlink.net>
Source record: 58263
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

Slow Code wrote:
>
> No more automatic renewals. Individuals must retest and pass all elements
> required for their license class.
>
> The passing score for written exams needs to be raised to 85%.
>
> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
> Make the no-code Tech license one year non-renewable.
>
> sc

Only allow homebrew equipment, and require it to be FCC type accepted
before you can put it on the air. No ICs allowed, no purchased coils or
variable capacitors. Hand make everything.

--
Service to my country? Been there, Done that, and I've got my DD214 to
prove it.
Member of DAV #85.

Michael A. Terrell
Central Florida

3723. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 00:59:53 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <o7hh82ltdqbk541o5mashkeejrco68l23q@4ax.com>
Source record: 58264

On Thu, 08 Jun 2006 20:33:12 -0400, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:

> I'd buy a tuner that will handle open wire feed, lose the 4:1 balun,
>and get on the air.

Mike, did you notice "Mystery's" comment re spending more money on a "tuner extender": "Not the answer I wanted to hear". She/he may be even less interested in the spend on the tuner you describe.

I agree with you that antenna looks worth a try / perseverance, but it will probably need a wider range tuner than commonly fitted internal to transceivers unless you experiment (what's that!) to find a feedline length that the rig/runer accommodates on all bands, or switch feedline lengths.

Owen
--

3724. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 01:13:21 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <5YqdnYISpsOyVhXZnZ2dnUVZ_tudnZ2d@comcast.com>
Source record: 58265

Mike Coslo wrote:

SNIPPED
> I'd buy a tuner that will handle open wire feed, lose the 4:1 balun,
> and get on the air.
> - 73 de Mike KB3EIA -

That's exactly what I use.

130 feet long center fed doublet with 600 ohm open wire tuned feeders.

Tuner is an OLD [30+ years] MURCH UT2000A with a balun.

Runs great on 75/80, 60, 40, 30, 20 meters.

I have used a LP for 20-10 meters. It is currently down as a result of QTH change and limited $$$.

/s/ DD, W1MCE

3725. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 01:29:02 UTC
From: clfe <Nospam@clfurent.com>
Message-ID: <4488ced6$0$3683$ecde5a14@news.coretel.net>
Source record: 58266
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Bill Turner" <dezrat@copper.net> wrote in message
news:co9h82d7fejjh7ac87n63pe9lgkcuu1120@4ax.com...
> ORIGINAL MESSAGE:
>
> On Tue, 6 Jun 2006 09:36:21 -0400, "clfe" <Nospam@clfurent.com> wrote:
>
>
>>I am of the opinion that a 5 WPM at least - should be kept on as a
>>requirement - as someday - it may be needed. Think not? Say you're in the
>>midst of an attack - of terrorism, a war on our homefront OR a large scale
>>natural disaster, a microphone isn't working or available. You can key the
>>radio but don't know code - now what? With code, even at 5 WPM - you could
>>get some very important information to those needing it to help save you -
>>to them. You could tell them WITH code, what is needed, exact whereabouts,
>>how many people involved, etc........ Just clicking a mic pin with a wire
>>won't tell anyone anything and could delay any help or a response big
>>enough
>>to do much good. In these times with the large scale disasters as we've
>>seen
>>and attacks - even for any said to be planned, NOW is a good time to WANT
>>to
>>know code. IT may save you........ It is one of those skills you learn -
>>just like CPR or whatever - you hope you never have to use, but you're
>>glad
>>you have it - when you need it.
>
> ********** REPLY SEPARATOR **********
>
> Your priorities are skewed. Since there are only so many hours
> allotted to us, what would be a better way to spend your spare time:
>
> 1. Learning morse code for the above mike-failure scenario?
> 2. Stocking up food, water and ammo for the above mike-failure
> scenario?
>
> You have been reading too many stories of the valiant radio op on the
> Titanic. Ain't gonna happen.
>
> Bill, W6WRT
> 20 wpm Extra, but realistic about it
>
>

Not really, but I'm not in a mood to argue about stupid shit - anymore. Actually, I could care less. My ham days are few and far in between due to all the ass holes on there ruining it for the rest of us. Maybe you're right..... the code really didn't keep the crud off the radios. Hell, why even have a test at all.

3726. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 01:30:17 UTC
From: clfe <Nospam@clfurent.com>
Message-ID: <4488cf20$0$3686$ecde5a14@news.coretel.net>
Source record: 58267
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Bill Turner" <dezrat@copper.net> wrote in message
news:i1ah82tjdddgjjvcsknsdnajpf5qmg40cs@4ax.com...
> ORIGINAL MESSAGE:
>
> On Tue, 6 Jun 2006 09:54:14 -0400, "clfe" <Nospam@clfurent.com> wrote:
>
>
>>One other thing..... I cut my teeth on CB back when the FCC was busting
>>CBers regularly for violations. I then got into Ham and Electronics.
>
> ********** REPLY SEPARATOR **********
>
> Your CB origin is showing. "Ham" is an adjective, not a noun. One does
> not "get into ham", one "gets into ham radio".
>
> 10-4?
>
> Bill, W6WRT
>

For christ's sakes - a misuse of words - so what..... I'm not an English
Major. If that is all you can find to run off at the mouth about, why
bother?

3727. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 01:44:08 UTC
From: w8ji@akorn.net
Message-ID: <1149817448.339895.295850@u72g2000cwu.googlegroups.com>
Source record: 58268

Owen Duffy wrote:
> On 8 Jun 2006 05:42:37 -0700, Mystery.DXer@yahoo.com wrote:
>
> >Buyer Beware

> >same antenna I purchased. I bought the Cobra junior antenna and
> >followed the directions for installation. The antenna is 50ft in the
> >air in a flat top configuration. When I hooked it up to my radio, it
> >would not tune on segments of certain bands, most noticeably 75/80. I

> That all seems pretty reasonable though the explanation that the
> "built in tuner would not accept more than a certain level of SWR" is
> not a good way to express the limits of internal tuners, but it is an
> explanation that would appeal to those with lesser knowledge.

The problem is that antenna is advertised to work all bands.
Unfortunately it doesn't do very well on many bands.

The SWR is "off the scale" on many bands.

3728. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 02:03:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <3G4ig.48095$Lm5.9297@newssvr12.news.prodigy.com>
Source record: 58269

w8ji@akorn.net wrote:
> The problem is that antenna is advertised to work all bands.
> Unfortunately it doesn't do very well on many bands.

Sounds like a G5RV.
--
73, Cecil http://www.qsl.net/w5dxp

3729. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 02:12:11 UTC
From: w8ji@akorn.net
Message-ID: <1149819131.652479.124510@j55g2000cwa.googlegroups.com>
Source record: 58270

Cecil Moore wrote:
> w8ji@akorn.net wrote:
> > J. Mc Laughlin wrote:
> > > Moving dust particles can carry charge and become charged. The noise does
> > > follow the "pattern of the particle rate."
> >
> > I've never seen it do that. But I'll keep watching for it.
>
> In Arizona, the harder the wind blew on a clear day, the shorter the
> length of time between arcs on my coax connector. In a high wind, it
> sounded something like the rat-a-tat of a machine gun.

Let's see if I can explain this in 200 words or less. :-)

One popular supposition is what Reg indictated, that P-static is caused
by charged droplets hitting the antenna. As each little drop hits the
antenna, it makes a noise from the transfer of charges.

I always thought that also until I started working on antenna systems
on tall towers and buildings. Trying to make them not "noise up" when
the weather was bad turned out to be impossible when the antenna was
near the top of a structure. Shielding the antennas from moisture with
insulation didn't help. The only thing I found that helped was making
another object the tallest sharpest point on the structure, or
insulating or "rounding" the ends.

One of the things I did with a fiberglass Super StationMaster was to
drop a large plastic bucket over the sharp lightning spike at the top,
and the noise all virtually vanished.
Another was placing a copper toilet tank float ball on the top to make
it smooth and round. Worked almost as well as the bucket. So did
putting up a taller mast on a roof away from the VHF or UHF antenna. On
one bank roof with a radio staion's remote brodcast pickup antenna and
two way radio antenna, we just installed a metal flagpole about 50 feet
away (they wouldn't let us have a pipe that protruded above the
roofline as seen from the street, but they accepted and used the
flagpole).

I started listening to my antennas at home, and noticed the same thing.
Lower antennas were always much more immune to what people call
P-static.

Now I'm not saying wind, dust, and moisture blowing across a
well-insulated antenna won't charge it faster, and make an antenna
without a ground path leak arc over some close gap more rapidly.

I'm only saying I never have seen the noise pitch of what people commonly call P-static track the actual number of droplets or dust hitting the antenna, and everything else I've seen indicates the rapid popping that turns to a sizzle and then an almost musical pitch seems to be tied only to charge gradient between the antenna and the surrounding air.

I've been on the top of very tall well-grounded BC towers on days with a stiff stready wind, no dust or rain, and seen a sharp bracket or sharp strand of guyline poking out hissing with corona streamers.

That noise sounds just like what everyone I know calls "P-static".

73 Tom

3730. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 02:15:36 UTC
From: dplatt@radagast.org
Message-ID: <128hme8sbfdeoe6@corp.supernews.com>
Source record: 58271

>> >same antenna I purchased. I bought the Cobra junior antenna and
>> >followed the directions for installation. The antenna is 50ft in the
>> >air in a flat top configuration. When I hooked it up to my radio, it
>> >would not tune on segments of certain bands, most noticeably 75/80. I
>
>> That all seems pretty reasonable though the explanation that the
>> "built in tuner would not accept more than a certain level of SWR" is
>> not a good way to express the limits of internal tuners, but it is an
>> explanation that would appeal to those with lesser knowledge.
>
>The problem is that antenna is advertised to work all bands.
>Unfortunately it doesn't do very well on many bands.
>
>The SWR is "off the scale" on many bands.

The same would be true of almost any other doublet-style antenna, I think. Such antennas are often usable on a large number of bands if you have a wide-range transmatch/tuner, but I don't think I know of any which are usable in this way with the limited-matching-range "line flattener" ATUs built into modern solid-state transceivers.

The Cobra Ultralight is only about 60% as long as a normal resonant near-half-wave dipole for 75/80 meters. It's shortened by linear loading. I imagine it has a narrower SWR bandwidth than a simple dipole.

The manufacturer states that a tuner _is_ required. The wording is perhaps somewhat more optimistic about using a transceiver's built-in ATU than is justified, though. I wouldn't plan to use an antenna of this sort without a good external tuner with balanced-output capability (whether intrinsic or via a good current balun).

The original poster might want to consider making a multi-wire (or "fan") dipole. With several sets of wires it'd surely be possible to make one which would tune on 80, 75, 40, and 20 well enough to not need an external tuner... although fitting it into under 80 feet of linear space might prove to be a challenge.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will boycott any company which has the gall to send me such ads!

3731. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 02:38:40 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <Qa5ig.16584$EX2.13847@bignews5.bellsouth.net>
Source record: 58272

<Mystery.DXer@yahoo.com> wrote in message
news:1149770557.629987.141180@i40g2000cwc.googlegroups.com...
> Buyer Beware
> I have read all the reviews and I am wondering if they are about the
> same antenna I purchased. I bought the Cobra junior antenna and
> followed the directions for installation. The antenna is 50ft in the
> air in a flat top configuration. When I hooked it up to my radio, it
> would not tune on segments of certain bands, most noticeably 75/80. I
> called Joe to get some help and was told that my radio, which has a
> built in tuner would not accept more than a certain level of SWR and
> was told to trim the twinlead back 19 feet. I did and while some of the
> problem was solved, I continued to have problems on 75/80. I emailed
> Joe to ask for further assistance and was told that the next step was
> to buy a tuner extender (price $60). Not the answer I wanted to hear.
> If in fact this kind of problem exists with radios that have built in
> tuners, prospective buyers should know that in advance. For the cost of
> the antenna and now the tuner extender, I could have bought a better
> antenna, which is what I intend to do. I am not pleased with this
> antenna and would not recommend it especially to someone who has a
> radio with a built in tuner and intends to use it. Additionaly, the
> performance on 40 seems to be very good. It seems to under perform on
> 20. Can't tell on 75/80 because I can't tune the band.
>
> KC2GWK

Lots could be wrong here including trying to kibbutz the problem from afar. But it *sounds* like it is a combination of not enough tuner and a "bit" of operator error. The internal tuners simply do not have enough capacity to meet the demands of all-band operation in some cases. I have the Ultralite Senior using the LDG Pro 100 tuner and I simply LOVE this antenna! I know that there is loss on some bands, but any so-called "all-band" antenna is going to be a compromise when compared to a dedicated, resonant antenna. I don't even LIKE tuners, but I have some requirements beyond the Amateur bands including US gov't SHARES and FEMA. I have to quickly move from one band to the other and, in order to do so, I have to accept some loss. However, I am VERY happy and surprised at the overall performance of *my* antenna. Actually, I'm told that it is unusually loud for a 100 watt station on a number of bands and quite readable on others (I don't HAVE to be the loudest thing going to be effective).

I would guess----and that is what it is, a guess------that your internal tuner doesn't have the ability to match this antenna-----AND probably a number of others as well in multi-band service. Or you simply may have overlooked something in the installation---like location or height above ground.

For every 10 users of a product, there's going to be one, perhaps, that is dissatisfied. With the Cobra, the reviews I have read are decidedly in favor of both the Junior AND the Senior Ultralight. You can't win 'em all!

73

K4KWH
>

3732. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 02:52:26 UTC
From: pbourget <pbourget@gmail.com>
Message-ID: <1149821546.632074.199040@f6g2000cwb.googlegroups.com>
Source record: 58273

I have the Ultralite Senior and am very happy with it. I have it at 30 feet with the ends dropping down about 15 feet since my lot isn't big enough. I bought it primarily as a local contact antenna since everything else I have is a vertical of one type or another. It turns out to work much better than I expected. I have worked the South Pacific, Europe and Peter One on it with 100 watts. I use the full 100 feet of ladder line it came with to a 4:1 balun through a remote antenna switch and 50 feet of LMR400 coax. Sometimes it receives better than my verticals and it almost always is quieter. In fact that is why I used it for Peter One, I couldn't pick what calls they were coming back to because of the noise on the vertical and half square. My TS-480 internal tuner tunes it on every band, even 6 meters which there are no claims for.

Pete W6OP

Jerry wrote:
> <Mystery.DXer@yahoo.com> wrote in message
> news:1149770557.629987.141180@i40g2000cwc.googlegroups.com...
> > Buyer Beware
> > I have read all the reviews and I am wondering if they are about the
> > same antenna I purchased. I bought the Cobra junior antenna and
> > followed the directions for installation. The antenna is 50ft in the
> > air in a flat top configuration. When I hooked it up to my radio, it
> > would not tune on segments of certain bands, most noticeably 75/80. I
> > called Joe to get some help and was told that my radio, which has a
> > built in tuner would not accept more than a certain level of SWR and
> > was told to trim the twinlead back 19 feet. I did and while some of the
> > problem was solved, I continued to have problems on 75/80. I emailed
> > Joe to ask for further assistance and was told that the next step was
> > to buy a tuner extender (price $60). Not the answer I wanted to hear.
> > If in fact this kind of problem exists with radios that have built in
> > tuners, prospective buyers should know that in advance. For the cost of
> > the antenna and now the tuner extender, I could have bought a better
> > antenna, which is what I intend to do. I am not pleased with this
> > antenna and would not recommend it especially to someone who has a
> > radio with a built in tuner and intends to use it. Additionaly, the
> > performance on 40 seems to be very good. It seems to under perform on
> > 20. Can't tell on 75/80 because I can't tune the band.
> >
> > KC2GWK
>
> Lots could be wrong here including trying to kibbutz the problem from afar.
> But it *sounds* like it is a combination of not enough tuner and a "bit" of
> operator error. The internal tuners simply do not have enough capacity to

> meet the demands of all-band operation in some cases. I have the Ultralite
> Senior using the LDG Pro 100 tuner and I simply LOVE this antenna! I know
> that there is loss on some bands, but any so-called "all-band" antenna is
> going to be a compromise when compared to a dedicated, resonant antenna. I
> don't even LIKE tuners, but I have some requirements beyond the Amateur
> bands including US gov't SHARES and FEMA. I have to quickly move from one
> band to the other and, in order to do so, I have to accept some loss.
> However, I am VERY happy and surprised at the overall performance of *my*
> antenna. Actually, I'm told that it is unusually loud for a 100 watt station
> on a number of bands and quite readable on others (I don't HAVE to be the
> loudest thing going to be effective).
>
> I would guess----and that is what it is, a guess------that your internal
> tuner doesn't have the ability to match this antenna-----AND probably a
> number of others as well in multi-band service. Or you simply may have
> overlooked something in the installation---like location or height above
> ground.
>
> For every 10 users of a product, there's going to be one, perhaps, that is
> dissatisfied. With the Cobra, the reviews I have read are decidedly in favor
> of both the Junior AND the Senior Ultralight. You can't win 'em all!
>
>
> 73
>
> K4KWH
> >

3733. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 03:30:01 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4488eb3a$0$1006$39cecf19@news.twtelecom.net>
Source record: 58274
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

Slow Code wrote:

>
>
>
> I just knew none of you would take this serious and help. I bet you're
> all democrats.
>
> sc

Wrongo smart guy.

And I only take things seriously that deserve it.

tom
K0TAR

3734. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 03:34:42 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4488ec52$0$6141$39cecf19@news.twtelecom.net>
Source record: 58275
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

clfe wrote:

> Not really, but I'm not in a mood to argue about stupid shit - anymore.
> Actually, I could care less. My ham days are few and far in between due to
> all the ass holes on there ruining it for the rest of us. Maybe you're
> right..... the code really didn't keep the crud off the radios. Hell,
> why even have a test at all.
>
>
>

Time to hang up your ticket I guess. We are all assholes, and you are
the only "true ham radio operator" left. Go play with yourself.

tom
K0TAR

3735. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 03:37:14 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4488ecea$0$6141$39cecf19@news.twtelecom.net>
Source record: 58176
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

clfe wrote:

> Not really, but I'm not in a mood to argue about stupid shit - anymore.
> Actually, I could care less. My ham days are few and far in between due to
> all the ass holes on there ruining it for the rest of us. Maybe you're
> right..... the code really didn't keep the crud off the radios. Hell,
> why even have a test at all.
>

And at least we admit who we are. You, on the other hand, are hiding.
You are likely just a frigging troll that isn't even licensed.

tom
K0TAR

3736. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 04:05:47 UTC
From: Buck <not@this.time>
Message-ID: <scrh821oiudh1cm1psv941j6qfb6k79c2a@4ax.com>
Source record: 58177

On Fri, 09 Jun 2006 00:59:53 GMT, Owen Duffy <owen@no.where> wrote:

>On Thu, 08 Jun 2006 20:33:12 -0400, Mike Coslo
><mremovethiscoslo@adelphia.net> wrote:
>
>
>> I'd buy a tuner that will handle open wire feed, lose the 4:1 balun,
>>and get on the air.
>
>Mike, did you notice "Mystery's" comment re spending more money on a
>"tuner extender": "Not the answer I wanted to hear". She/he may be
>even less interested in the spend on the tuner you describe.
>
>I agree with you that antenna looks worth a try / perseverance, but it
>will probably need a wider range tuner than commonly fitted internal
>to transceivers unless you experiment (what's that!) to find a
>feedline length that the rig/runer accommodates on all bands, or
>switch feedline lengths.
>
>Owen

There really isn't a lot of information on the antenna on the page I saw: http://www.k1jek.com/. Many antennas have a spectrum of frequencies and their associated SWR. Knowing my internal tuner can only handle 8:1 but the antenna shows places I am interested in using with 12:1, would help me in my decision to choose the antenna or another. the OP didn't have that information. I know that internal antenna tuners are basically 'fine-tuners' and are very limited compared to external tuners. (at least Kenwood is clear about that in their instruction guides.) I am not pointing a finger at either party, Mystery for not posting the information or some warning nor the OP for not asking. The Mystery page isn't very Corporate looking so one would have to assume some give and take in the purchase by both parties.

Is there any reason the antenna can't be returned for a refund? If not, can it be sold to someone else who is interested?

This is one of life's lessons learned.

I just looked at the review of the antenna from eHam.com:
==========
WA1BSB Rating: 5/5 Apr 24, 2006 14:29

Homemade Ultrilite Senior Time owned: 0 to 3 months

Hi I went and made a homemade Ultrilite I too 3 conductor tv rotor cable 70 ft each side and mounted it to a modified 450 ohm ladderloc at the center I then ran about 50 ft of ladder line down to a 4.1 balun I know the plan calls for 100 ft but I just dint have the spot to coil it up The antenna is in a flat top configuration up between 2 trees about 80 ft up from the balun I ran about 70 ft of RG8X 50 ohm to my 746 Pro it tunes perfect on all bands 10-160 using the radios tuner 1.1 swr Anyhow it works with good signal reports so far on 40 and 20 meter Im looking forward to trying in 75 and 160 Anyhow bottom line whether you make one or buy it its quite the antenna I glad I got one 73s
==========

There are many other reviews about the antennas, both jr and sr.

Maybe there is a better configuration that will work, or he may need the tuner or tuner extender.

Good luck

Buck

--
73 for now
Buck
N4PGW

3737. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 04:06:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gt6ig.42598$fb2.1295@newssvr27.news.prodigy.net>
Source record: 58178

w8ji@akorn.net wrote:
> Now I'm not saying wind, dust, and moisture blowing across a
> well-insulated antenna won't charge it faster, and make an antenna
> without a ground path leak arc over some close gap more rapidly.

I cured the problem by going to 1000v insulation on the
antenna wire. 600v insulation didn't cure the problem.

> I'm only saying I never have seen the noise pitch of what people
> commonly call P-static track the actual number of droplets or dust
> hitting the antenna, ...

Uhhhh Tom, it doesn't happen in Georgia just as it doesn't
happen in East Texas. If I had never lived in Queen Creek,
Arizona, I never would have seen it either.
--
73, Cecil http://www.qsl.net/w5dxp

3738. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 04:55:44 UTC
From: Ed <none@this.time>
Message-ID: <kb7ig.42612$fb2.39224@newssvr27.news.prodigy.net>
Source record: 58179
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Give up CB for Ham.....what the hell would you be giving up?
"Bill Turner" <dezrat@copper.net> wrote in message
news:co9h82d7fejjh7ac87n63pe9lgkcuu1120@4ax.com...
> ORIGINAL MESSAGE:
>
> On Tue, 6 Jun 2006 09:36:21 -0400, "clfe" <Nospam@clfurent.com> wrote:
>
>
>>I am of the opinion that a 5 WPM at least - should be kept on as a
>>requirement - as someday - it may be needed. Think not? Say you're in the
>>midst of an attack - of terrorism, a war on our homefront OR a large scale
>>natural disaster, a microphone isn't working or available. You can key the
>>radio but don't know code - now what? With code, even at 5 WPM - you could
>>get some very important information to those needing it to help save you -
>>to them. You could tell them WITH code, what is needed, exact whereabouts,
>>how many people involved, etc..... Just clicking a mic pin with a wire
>>won't tell anyone anything and could delay any help or a response big
>>enough
>>to do much good. In these times with the large scale disasters as we've
>>seen
>>and attacks - even for any said to be planned, NOW is a good time to WANT
>>to
>>know code. IT may save you..... It is one of those skills you learn -
>>just like CPR or whatever - you hope you never have to use, but you're
>>glad
>>you have it - when you need it.
>
> ********** REPLY SEPARATOR **********
>
> Your priorities are skewed. Since there are only so many hours
> allotted to us, what would be a better way to spend your spare time:
>
> 1. Learning morse code for the above mike-failure scenario?
> 2. Stocking up food, water and ammo for the above mike-failure
> scenario?
>
> You have been reading too many stories of the valiant radio op on the
> Titanic. Ain't gonna happen.
>
> Bill, W6WRT
> 20 wpm Extra, but realistic about it
>
>

3739. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 05:13:04 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <gfvh829ajf977al4b03gdqr0qb9qp6bsf5@4ax.com>
Source record: 58180

On Fri, 09 Jun 2006 00:05:47 -0400, Buck <not@this.time> wrote:

>frequencies and their associated SWR. Knowing my internal tuner can
>only handle 8:1 but the antenna shows places I am interested in using

Buck, how do you know that your tuner can handle (presumably SWR up to) 8:1? Is it a commonly published specification for transceiver internal tuners or external tuners?

The capability of a tuner is much more complex (pardon the pun), but could be mapped for each band to a Smith Chart as an area of input Z that could be transformed to 50 ohms, and then one could plot loss contours to show the acceptable range. What would you do with the information?

Whilst it may be appropriate to specify the tolerance of Z on a nominal 50 ohms antenna with a maximum VSWR in a given frequency range (eg as often done for VHF and UHF antennas), the Cobra does not pretend to present any particular impedance on any particular frequency (remember that user is permitted to use any length of open wire feed operating at high VSWR, so the Z at the tx end of the balun cannot be specified at any frequency).

The Cobra Junior, a 72' long linear loaded dipole, looks interesting in terms of a short antenna for low HF bands with reasonably low losses. I have run some preliminary NEC models and analysed the feed system loss with 25m of W551 ladder line, they look promising. I will build a complete model over HF along the lines of the ones that underly my article on the G5RV feed system at http://www.vk1od.net/G5RV/index.htm . More when it is done in a day or three.

Owen
--

3740. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 06:08:08 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <128i42c75ciau8f@corp.supernews.com>
Source record: 58181

Mike Coslo wrote:
> Roy Lewallen wrote:
>>. . .

>> What will cause it to vary? In any case, just make the capacitance
>> large enough so the reactance is always small compared to the ground
>> impedance, then it won't matter.
>
> Well, I could be wrong, but if one side of the capacitor is on the
> inside of the hull, and the other side is the sea water, is not the
> motion of the ship going to affect that? ships move up and down quite a
> bit, and low draft ones can have a *lot* of that hull out of the water,
> and then a few seconds later have water coming over the bow.

Well, I was envisioning a plate on some part of the hull which always had water on the other side. If the hull on the other side of the plate comes out of the water, you'll of course effectively lose coupling to the water from that part of the plate. But again, if you make the plate large enough so that enough of the plate always has water on the other side of the hull to make a low impedance, the variation won't matter.

Sounds like you might have to make the plate cover a fair portion of the hull to insure that there's always water on the other side of some of it. If the entire hull comes out of the water, just remember to say "mayday" really quick every time the hull hits the water. Other than that, seems to me you'll probably be too busy to be playing with the radio anyway.

Roy Lewallen, W7EL

3741. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 07:25:33 UTC
From: clfe <Nospam@clfurent.com>
Message-ID: <44892265$0$3702$ecde5a14@news.coretel.net>
Source record: 58182
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Tom Ring" <news0002@taring.org> wrote in message
news:4488ec52$0$6141$39cecf19@news.twtelecom.net...
> clfe wrote:
>
>> Not really, but I'm not in a mood to argue about stupid shit - anymore.
>> Actually, I could care less. My ham days are few and far in between due
>> to all the ass holes on there ruining it for the rest of us. Maybe you're
>> right.......... the code really didn't keep the crud off the radios.
>> Hell, why even have a test at all.
>>
>>
>>
>
> Time to hang up your ticket I guess. We are all assholes, and you are the
> only "true ham radio operator" left. Go play with yourself.
>
> tom
> K0TAR

Nah, not all of "us" or "you" in the case of your statement. I'm just saying a lot of crap is going on - on the bands today and its not worth even earning a ticket for - anymore. Ham radio and yes, even CB - used to be respectable at one time. How times change. Its hardly worth turning on the radio anymore. Especially on say 10 and 80 meters. But back to "your" statement, there are still "many" decent operators on both the Ham AND CB bands - out there. Ya just got to pick through the rubble to find them sometimes.

And NO, I"m not the "ONLY" "TRUE" Operator left........ Don't put words in my mouth, I certainly didn't place myself on any pedestal. Again - there are LOTS of decent operators out there. I didn't say "ALL" were bad - but there are - you have to admit - quite a few bad ones. Its gotten worse in the past few years.

3742. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 07:36:46 UTC
From: clfe <Nospam@clfurent.com>
Message-ID: <44892506$0$3706$ecde5a14@news.coretel.net>
Source record: 58183
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

"Tom Ring" <news0002@taring.org> wrote in message
news:4488ecea$0$6141$39cecf19@news.twtelecom.net...
> clfe wrote:
>
>> Not really, but I'm not in a mood to argue about stupid shit - anymore.
>> Actually, I could care less. My ham days are few and far in between due
>> to all the ass holes on there ruining it for the rest of us. Maybe you're
>> right.......... the code really didn't keep the crud off the radios.
>> Hell, why even have a test at all.
>>
>
> And at least we admit who we are. You, on the other hand, are hiding. You
> are likely just a frigging troll that isn't even licensed.
>
> tom
> K0TAR
>
>

I don't sign with my call. Some like to - that is their choice. But even if
they didn't - wouldn't give me any reason to doubt them being licensed.
"Posting" a call sign doesn't prove a thing. "I" for one - am NOT going to
go running to the FCC database to check your call or any other to see if it
is legit. I don't care........

3743. Re: Yet another 6m 3el Quad question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 08:03:46 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <zX9ig.7304$gv2.3191@bignews3.bellsouth.net>
Source record: 58184

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:jXDhg.37830$4H.24271@dukeread03...
> My Quad is all built and I'm waiting or FedEx to deliver
> my rotor. I built the quad out of wood, with a 1-1/4" dia
> pine boom and 4' mast plus 1/4"x48" spruce dowels for
> spreaders. I used insulated 16g stranded wire for the
> elements. All the wood is either painted or treated with
> sealer.
>
> Problem is I just broke a spreader moving the antenna and
> I'm worried about how fragile the whole design is. Would
> the performance change much if I used 1/4" aluminum rods
> instead? Maybe I should just get some fiberglass resin and
> paint the spreaders with several coats? How about wrapping
> them in re-enforced boxers tape (the good stuff with fibers
> in the tape)?
>
> Thanks for the help, guys....
>
> --
> 73's de Ken KG0WX - Kadiddlehopper #11808,
> Flying Pigs #-1055, Grid EM17io, FT-857D, AL-84,
> Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B
>
>

I found 1/4 inch fiberglass a little flimsy for a 6 meter quad but workable,
3/8ths was much better. next time I build one it will probably be 1/2 inch
fiberglass.

3744. Re: Yet another 6m 3el Quad question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 11:48:39 UTC
From: Howard W3CQH <hgorden@adelphia.net>
Message-ID: <ndGdnUs7oqWI_RTZnZ2dnUVZ_sidnZ2d@adelphia.com>
Source record: 58185

"Jimmie D" <jimmiedee@bellsouth.net> wrote in message
news:zX9ig.7304$gv2.3191@bignews3.bellsouth.net...
>
> "Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
> news:jXDhg.37830$4H.24271@dukeread03...
>> My Quad is all built and I'm waiting or FedEx to deliver
>> my rotor. I built the quad out of wood, with a 1-1/4" dia
>> pine boom and 4' mast plus 1/4"x48" spruce dowels for
>> spreaders. I used insulated 16g stranded wire for the
>> elements. All the wood is either painted or treated with
>> sealer.
>>
>> Problem is I just broke a spreader moving the antenna and
>> I'm worried about how fragile the whole design is. Would
>> the performance change much if I used 1/4" aluminum rods
>> instead? Maybe I should just get some fiberglass resin and
>> paint the spreaders with several coats? How about wrapping
>> them in re-enforced boxers tape (the good stuff with fibers
>> in the tape)?
>>
>> Thanks for the help, guys....
>>
>> --
>> 73's de Ken KG0WX - Kadiddlehopper #11808,
>> Flying Pigs #-1055, Grid EM17io, FT-857D, AL-84,
>> Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B
>>
>>
>
> I found 1/4 inch fiberglass a little flimsy for a 6 meter quad but
> workable, > 3/8ths was much better. next time I build one it will probably
> be 1/2 inch fiberglass.

Be careful when working with fiberglass - after a while it tends to flake
and you could get the fiberglass in your hands, etc. - wear gloves.
73's
Howard W3CQH

3745. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 11:59:40 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <128iolddveh4j8d@corp.supernews.com>
Source record: 58186
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Brian Hill wrote:
> "John S." <hjsjms@cs.com> wrote in message
> news:1149714609.565540.160300@c74g2000cwc.googlegroups.com...
>
>>New Ham wrote:
>>
>>>Did I get ripped off?
>>
>>You might try a Stetson.
>>
>
>
> four or five X beaver John?
>
> BH
>
>
No, no! Thats a waste of good beaver :

3746. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 12:19:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hHdig.40873$4L1.3173@newssvr11.news.prodigy.com>
Source record: 58187

Owen Duffy wrote:
> The capability of a tuner is much more complex (pardon the pun), but
> could be mapped for each band to a Smith Chart as an area of input Z
> that could be transformed to 50 ohms, and then one could plot loss
> contours to show the acceptable range.

Here's what my IC-756PRO manual says about its internal
tuner: "*Matching impedance range: HF bands, 16.7 to 150
ohms unbalanced (Less than VSWR 3:1)"
--
73, Cecil http://www.qsl.net/w5dxp

3747. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 12:25:59 UTC
From: Buck <not@this.time>
Message-ID: <cnoi82lgqrg95m8mqm54arp9p0dmvhfh0a@4ax.com>
Source record: 58188

On Fri, 09 Jun 2006 05:13:04 GMT, Owen Duffy <owen@no.where> wrote:

>On Fri, 09 Jun 2006 00:05:47 -0400, Buck <not@this.time> wrote:
>
>>frequencies and their associated SWR. Knowing my internal tuner can
>>only handle 8:1 but the antenna shows places I am interested in using
>
>Buck, how do you know that your tuner can handle (presumably SWR up
>to) 8:1? Is it a commonly published specification for transceiver
>internal tuners or external tuners?

In the manuals or specifications of most radios I have looked at with internal tuners, they say somewhere what the tuner can match. The Kenwood TS440SAT had in its instructions somewhere that it could match antennas with SWR up to 10:1 (which seems to be typical of most internal tuners on radios.) I have read the specs of many rigs including Yaesu, Kenwood and Icom. I can't say which have the specs and which don't, but I remember reading the specs many times for many radios.

>
>The capability of a tuner is much more complex (pardon the pun), but
>could be mapped for each band to a Smith Chart as an area of input Z
>that could be transformed to 50 ohms, and then one could plot loss
>contours to show the acceptable range. What would you do with the
>information?

I would read the radio specs, check my antenna and if the antenna matched, it matched, if not, I would use an external tuner, adjust the antenna, replace the antenna or repair the radio if necessary.

>
>Whilst it may be appropriate to specify the tolerance of Z on a
>nominal 50 ohms antenna with a maximum VSWR in a given frequency range
>(eg as often done for VHF and UHF antennas), the Cobra does not
>pretend to present any particular impedance on any particular
>frequency (remember that user is permitted to use any length of open
>wire feed operating at high VSWR, so the Z at the tx end of the balun
>cannot be specified at any frequency).
>
I saw NO specifications on the antenna related to resonance when I looked (the link is posted on an earlier posting.) This leads me to believe that the antenna is made by a hobbyist rather than a professional corporation. This isn't necessarily bad, but it would mean I would look into it further before buying. Reading the reviews in eHam, etc, which I believe pointed to a good antenna not addressing

your specific problem. However, having as much information as I have, I would have done what the first reviewer on eHam did. I would build my own and test it.

>The Cobra Junior, a 72' long linear loaded dipole, looks interesting
>in terms of a short antenna for low HF bands with reasonably low
>losses. I have run some preliminary NEC models and analysed the feed
>system loss with 25m of W551 ladder line, they look promising. I will
>build a complete model over HF along the lines of the ones that
>underly my article on the G5RV feed system at
>http://www.vk1od.net/G5RV/index.htm . More when it is done in a day or
>three.
>
I will be glad to look at that. I hope it helps the OP.

>Owen

Thanks,

When looking at antennas, I first look at all the information available from the manufacturer, then I look for reviews such as at eham, and I might bring it up for question here and at similar forums.

The antenna in question has no specifications or promises, per se, except for the claim that one can tune it to all the bands. This claim is reinforced by the reviews on eHam.com. As I said earlier, I wouldn't buy it, I would build it. I like doing that. :) If I were to purchase it and had an internal tuner in the rig, I would ask the maker or seller of the antenna if it is expected to work on my particular radio. He might inform me that the antenna might not work on some internal tuners and I would be better informed before I purchase.

Of course, the OP apparently doesn't have this information, or didn't read it about his particular rig. Then again, there are very many external factors that could affect the antenna.

I recently helped someone connect an 80 meter antenna to a TS-440 SAT which has an internal tuner. When we tested it in one position, it worked perfectly. However, when we added 6 feet of coax to move the radio and it suddenly tuned everywhere in the mars 4 mhz band except the area around which he meets in his net. We had to trim the antenna to make it match. Strange, but true.

I didn't analyze the whys and wherefors, but we did get the man operating successfully, which was the purpose of our visit.

Well, I have to get ready for that four letter word forbidden on local repeaters here.

73 for now.
buck

--
73 for now
Buck
N4PGW

3748. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 12:35:46 UTC
From: peewee_lloyd_davies@yahoo.com
Message-ID: <1149856546.597189.321690@y43g2000cwc.googlegroups.com>
Source record: 58189
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
an old freind wrote:
> Not Cocksucker Lloyd wrote:
> > sodomized by an old freind wrote:
> > > Not Cocksucker Lloyd wrote:
> > > > assraped by an old freind wrote:
> > > > > J. D. B. wrote:
> > > > > > That is a very good point that I never considered. In thinking about it,
> > > > > > it makes perfect sense. "Mode Welfare" - too funny.
> > > > > well thank you for making my day Sir
> > > > >
> > > > > although the phrase isn't mine it cames from the regulars here on RRAp
> > > > > from back in 1990's
> > > >
> > > > It figures you'd have to plagiarize it, Markie. Dumbass!
> > > you are no one to talk you <whaaaaaaaaaaaH!!!>
> >
> > Poor Marqueer, whining and crying.............
> can you post at all <PKB>

... / - / ..-. / ..- / .-.-.-
```

3749. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 13:05:40 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e6brn4$19ae$1@f04n12.cac.psu.edu>
Source record: 58190

Owen Duffy wrote:
> On Thu, 08 Jun 2006 20:33:12 -0400, Mike Coslo
> <mremovethiscoslo@adelphia.net> wrote:
>
>
>> I'd buy a tuner that will handle open wire feed, lose the 4:1 balun,
>> and get on the air.
>
> Mike, did you notice "Mystery's" comment re spending more money on a
> "tuner extender": "Not the answer I wanted to hear". She/he may be
> even less interested in the spend on the tuner you describe.

Of course.

But sometimes the unwanted answer is still the correct or best one.....

> I agree with you that antenna looks worth a try / perseverance, but it
> will probably need a wider range tuner than commonly fitted internal
> to transceivers unless you experiment (what's that!) to find a
> feedline length that the rig/runer accommodates on all bands, or
> switch feedline lengths.

Sounds like time for Cecil to join in. I know his system uses
switchable lengths of twinlead, but perhaps he might have something to
offer here in a one length feedline system.

- 73 de Mike KB3EIA -

3750. Re: 2 element gem quad

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 13:06:44 UTC
From: Eskay <siebklaasNO@SPAMhotmail.com>
Message-ID: <77mccbiof67$.1130uqrihfb7f$.dlg@40tude.net>
Source record: 58191

On Fri, 09 Jun 2006 00:19:31 +0100, mike wrote:

> Hi All
> Would anyone using a 2 element gem quad like to talk to me
> about putting the antenna together
>
> please reply direct
> Thanks
> 73 de Mike G4KHB

Don't you have the instructions?

3751. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 13:10:44 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e6bs0krhq1@f04n12.cac.psu.edu>
Source record: 58192

Dave Platt wrote:
>>>> same antenna I purchased. I bought the Cobra junior antenna and
>>>> followed the directions for installation. The antenna is 50ft in the
>>>> air in a flat top configuration. When I hooked it up to my radio, it
>>>> would not tune on segments of certain bands, most noticeably 75/80. I
>>> That all seems pretty reasonable though the explanation that the
>>> "built in tuner would not accept more than a certain level of SWR" is
>>> not a good way to express the limits of internal tuners, but it is an
>>> explanation that would appeal to those with lesser knowledge.
>> The problem is that antenna is advertised to work all bands.
>> Unfortunately it doesn't do very well on many bands.
>>
>> The SWR is "off the scale" on many bands.
>
> The same would be true of almost any other doublet-style antenna, I
> think. Such antennas are often usable on a large number of bands if
> you have a wide-range transmatch/tuner, but I don't think I know of
> any which are usable in this way with the limited-matching-range
> "line flattener" ATUs built into modern solid-state transceivers.
>
> The Cobra Ultralight is only about 60% as long as a normal resonant
> near-half-wave dipole for 75/80 meters. It's shortened by linear
> loading. I imagine it has a narrower SWR bandwidth than a simple
> dipole.

Which right away spells trouble when trying to match the huge 85-75
meter bands.

> The manufacturer states that a tuner _is_ required. The wording is
> perhaps somewhat more optimistic about using a transceiver's built-in
> ATU than is justified, though. I wouldn't plan to use an antenna of
> this sort without a good external tuner with balanced-output
> capability (whether intrinsic or via a good current balun).
>
> The original poster might want to consider making a multi-wire (or
> "fan") dipole. With several sets of wires it'd surely be possible
> to make one which would tune on 80, 75, 40, and 20 well enough to not
> need an external tuner... although fitting it into under 80 feet of
> linear space might prove to be a challenge.

Or an off center fed dipole. If he can get that antenna up 50 feet,
the ends can droop down.

- 73 de Mike KB3EIA -

3752. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 13:29:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qJeig.113462$dW3.74411@newssvr21.news.prodigy.com>
Source record: 58193

Michael Coslo wrote:
> Sounds like time for Cecil to join in. I know his system uses
> switchable lengths of twinlead, but perhaps he might have something to
> offer here in a one length feedline system.

Anyone have an EZNEC model of this antenna?
--
73, Cecil http://www.qsl.net/w5dxp

3753. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 14:23:55 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <%vfig.7446$gv2.424@bignews3.bellsouth.net>
Source record: 58194

"pbourget" <pbourget@gmail.com> wrote in message
news:1149821546.632074.199040@f6g2000cwb.googlegroups.com...
>I have the Ultralite Senior and am very happy with it. I have it at 30
> feet with the ends dropping down about 15 feet since my lot isn't big
> enough. I bought it primarily as a local contact antenna since
> everything else I have is a vertical of one type or another. It turns
> out to work much better than I expected. I have worked the South
> Pacific, Europe and Peter One on it with 100 watts. I use the full 100
> feet of ladder line it came with to a 4:1 balun through a remote
> antenna switch and 50 feet of LMR400 coax. Sometimes it receives better
> than my verticals and it almost always is quieter. In fact that is why
> I used it for Peter One, I couldn't pick what calls they were coming
> back to because of the noise on the vertical and half square. My TS-480
> internal tuner tunes it on every band, even 6 meters which there are no
> claims for.
>
> Pete W6OP
>
> Jerry wrote:
>> <Mystery.DXer@yahoo.com> wrote in message
>> news:1149770557.629987.141180@i40g2000cwc.googlegroups.com...

>> >
>

Yes, the Ultralite Senior is quite effective! Mine is at 60 feet at the
apex and the "Vee" droops down to about 20 or so. I get pretty nice signal
reports both from local and afar. You can't always win 'em all, but when an
antenna works *reasonably* well most anywhere you work, a fella can't ask
for much more! And I am perfectly happy with mine.

73

Jerry
K4KWH

3754. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 14:39:47 UTC
From: Jerry <joxendi@bellsouth.net>
Message-ID: <SKfig.7450$gv2.4890@bignews3.bellsouth.net>
Source record: 58195
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

"Slow Code" <my.mail@no.spam> wrote in message
news:WpEhg.2725$lp.611@newsread3.news.pas.earthlink.net...
> No more automatic renewals. Individuals must retest and pass all elements
> required for their license class.
>
>
> The passing score for written exams needs to be raised to 85%.
>
>
> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
>
> Make the no-code Tech license one year non-renewable.

AH! HA! We can dress our daughters in poodle skirts and drive to the
testing session in our brand-new 1961
Chevrolet Impala Sport Sedan!

Time marches on, boys, and as we age into crotchety old men (Gosh, I hope I
don't do the "crotchety" part!), we long for the 'good old days'---whatever
THAT was.
Some of us cling desperately to Hallicrafters receivers and Globe King
transmitters we bought when our hair was dark and full, and loathe the new
'mini' transceivers (likely because we are befuddled by the menus), and we
want Amateur Radio to stay exactly the same as it was *just* for us! We fuss
at the newer automobiles and say "I wish they made 'em the way they used
to". I DON'T!
They are actually BETTER than Dad's '65 Galaxie, last longer and run better.
(Try to tell that to the past-dwelling guys who cling frantically to their
youth, and they'll lecture you on the virtues of a '56 Chevy AND the
51J2...not that the older stuff isn't "good", just part of the PAST! Which
we, BTW, should remember as a basis for advancing into the future.

I don't really like it that CW is going away, but it WILL go away so far as
necessity goes same way we don't commute to work in our '56 Fairlane. So we
ADAPT to change instead of vainly clinging to the way WE think it should
stay forever and a day. When we are dead and gone, the world will be vastly
different than we would've remembered it!

73

Jerry
>

>
> sc
>
>
>

3755. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 15:20:52 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6c3kkeng1@avnika.corp.mot.com>
Source record: 58198
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Ahhhh!! Those only work when it rains capacitors !.

73, Steve, K9DCI

"John S." <hjsjms@cs.com> wrote in message
news:1149714609.565540.160300@c74g2000cwc.googlegroups.com...
>
> New Ham wrote:
> > Did I get ripped off?
>
> You might try a Stetson.
>

3756. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 15:23:47 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6c3q4eno1@avnika.corp.mot.com>
Source record: 58197
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

> > Somebody wrote:

> > No. This is an honest to god left handed crescent style wrench. Hold in
> > left hand and close the jaws using the left thumb.
>
> I have a metric one :-)
>
>

Yep ! Me too. I have a 150mm "Crescent" wrench! Works great on metric
nuts & bolts.

73, Steve, K9DCI

3757. Re: impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 15:30:45 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6c476epc1@avnika.corp.mot.com>
Source record: 58199

Look for "Parallel plate capacitor" formula.

73, Steve, K9DCI

"kretko" <kretko@interia.pl> wrote in message
news:e68h17$gl3$2@nemesis.news.tpi.pl...
> Hello !
>
> Im looking for a formula impedance of conductor between two ground plane.
>
> _________
> *
> h1
> *
> p
> *
> h2
> *
> _________
>
> p -conductor
> h1 = h2
>
> Thank you for your help !
>
> Goodlack ! ! !

3758. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 15:33:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Hxgig.113500$dW3.62375@newssvr21.news.prodigy.com>
Source record: 58196

Michael Coslo wrote:
> Sounds like time for Cecil to join in. I know his system uses
> switchable lengths of twinlead, but perhaps he might have something to
> offer here in a one length feedline system.

Things are slow here at the GED office today so I modeled
the Cobra-Jr and Cobra-Sr. The Cobra-Jr suffers from
feedpoint impedance problems similar to a G5RV used on
75m. The feedpoint impedance on 3.7 MHz is about
16.5 + j459 ohms giving a 450 ohm SWR of 56:1.

For my variable feedline method to work with 450 ohm line,
the SWR must fall between 4.5:1 and 18:1. A dipole that is
1/2WL on the lowest frequency of operation usually meets
that requirement. The G5RV length doesn't and the Cobra-Jr
doesn't.

One thing interesting about the Cobra-Jr is that if it is
made 62 feet long instead of 73 feet long, it becomes
resonant around 3.85 MHz with a feedpoint impedance of
about 16 ohms. That's an SWR of only about 3:1 on coax.
or ~1.3:1 using a 1:4 balun. That's a half size antenna
for 75m that is only about 1.5 dB down from a full size
1/2WL dipole.
--
73, Cecil, http://www.qsl.net/w5dxp

3759. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 16:00:03 UTC
From: Paladin <kb1ghh@hotmail.com>
Message-ID: <1149868803.025595.165890@c74g2000cwc.googlegroups.com>
Source record: 58200

Cecil Moore wrote:
> Michael Coslo wrote:
> > Sounds like time for Cecil to join in. I know his system uses
> > switchable lengths of twinlead, but perhaps he might have something to
> > offer here in a one length feedline system.
>
> Things are slow here at the GED office today so I modeled
> the Cobra-Jr and Cobra-Sr. The Cobra-Jr suffers from
> feedpoint impedance problems similar to a G5RV used on
> 75m. The feedpoint impedance on 3.7 MHz is about
> 16.5 + j459 ohms giving a 450 ohm SWR of 56:1.
>
> For my variable feedline method to work with 450 ohm line,
> the SWR must fall between 4.5:1 and 18:1. A dipole that is
> 1/2WL on the lowest frequency of operation usually meets
> that requirement. The G5RV length doesn't and the Cobra-Jr
> doesn't.
>
> One thing interesting about the Cobra-Jr is that if it is
> made 62 feet long instead of 73 feet long, it becomes
> resonant around 3.85 MHz with a feedpoint impedance of
> about 16 ohms. That's an SWR of only about 3:1 on coax.
> or ~1.3:1 using a 1:4 balun. That's a half size antenna
> for 75m that is only about 1.5 dB down from a full size
> 1/2WL dipole.
> --
> 73, Cecil, http://www.qsl.net/w5dxp

3760. Sinusoidal Antenna Currents

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 16:13:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <z6hig.113516$dW3.81939@newssvr21.news.prodigy.com>
Source record: 58201

Here's a quote from Kraus' "Antennas For All Applications"
3rd Edition, page 177, section 6-4:

"The Thin Linear Antenna - In this section
expressions for the far-field patterns of thin linear
antennas will be developed. It is assumed that the antennas
are symmetrically fed at the center by a balanced two-wire
transmission line. The antennas may be of any length, but
it is assumed that the current distribution is SINUSOIDAL.
Current-distribution measurements indicate that this is a GOOD
ASSUMPTION provided that the antenna is thin, i.e., when the
conductor diameter is less than, say, lamda/100. Thus, the
sinusoidal current distribution approximates the natural
distribution on thin antennas." Emphasis mine.

So Kraus gives us permission to treat the currents on a
dipole as sinusoidal as long as the diameter of the element
is less than 4 inches on 30 MHz or less than 40 inches on
3 MHz. So virtually all HF dipoles are thin-wire antennas.

And since the current distribution is assumed sinusoidal, the
arc-cosine function will yield the number of degrees a point
is away from a current maximum point, e.g. the phase information
for the forward traveling wave.
--
73, Cecil, http://www.qsl.net/w5dxp

3761. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 16:28:37 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1149870517.893244.250120@i40g2000cwc.googlegroups.com>
Source record: 58202
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

peewee_lloyd_davies@yahoo.com wrote:
> an old freind wrote:

> > > Poor Marqueer, whining and crying.....
> > can you post at all <PKB>
>
> ... / - / ..-. / ..- / .-.-.-
guess not

3762. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 16:59:19 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1149872359.138451.230070@h76g2000cwa.googlegroups.com>
Source record: 58204
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

Jerry wrote:
> "Slow Code" <my.mail@no.spam> wrote in message
> news:WpEhg.2725$lp.611@newsread3.news.pas.earthlink.net...
> > No more automatic renewals. Individuals must retest and pass all elements

> I don't really like it that CW is going away, but it WILL go away so far as
> necessity goes same way we don't commute to work in our '56 Fairlane. So we
> ADAPT to change instead of vainly clinging to the way WE think it should
> stay forever and a day. When we are dead and gone, the world will be vastly
> different than we would've remembered it!
>
> 73
indeed well said

3763. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 17:04:56 UTC
From: "John S." <hjsjms@cs.com>
Message-ID: <1149872696.750235.113470@j55g2000cwa.googlegroups.com>
Source record: 58205
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Steve N. wrote:
> > > Somebody wrote:
>
> > > No. This is an honest to god left handed crescent style wrench. Hold in
> > > left hand and close the jaws using the left thumb.
> >
> > I have a metric one :-)
> >
> >
>
>
> Yep ! Me too. I have a 150mm "Crescent" wrench! Works great on metric
> nuts & bolts.
>
> 73, Steve, K9DCI

Yeah, and I've had these two left handed pipe wrenches around for
years. This southpaw found them indispensable on galvanized, but can't
seem to get them to work on copper pipe.

3764. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 17:44:33 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-FFDD92.09454109062006@netnews.worldnet.att.net>
Source record: 58206

In article <u-idncZXl5yLXhXZnZ2dnUVZ_qmdnZ2d@adelphia.com>,
Mike Coslo <mremovethiscoslo@adelphia.net> wrote:

> Well, I could be wrong, but if one side of the capacitor is on the
> inside of the hull, and the other side is the sea water, is not the
> motion of the ship going to affect that? ships move up and down quite a
> bit, and low draft ones can have a *lot* of that hull out of the water,
> and then a few seconds later have water coming over the bow.

We are not talking about 16 foot dingys here, we are talking about vessels mostly over 30 feet in length, and usually with over 3 or 4 feet of draft. Just how much coupling to the seawater you have is a function of area of the inside capacitive plate, and the distance between it and the seawater. If the dielectric distance is a few inches, and the inside plate is below the waterline, then coupling will not change apperciably, just because the water is sloshing around a bit on the hull. Even if a bit of the surface area of the inside plate did come above the waterline for a little while, say on a hard tack in a sail rig, the coupling still wouldn't be appreciably reduced by loosing 5% of the surface area. These are not really valid problems that one sees, when operating MF/HF Marine Radios that have a decent, Low Impedance RF Ground System installed in the first place. doing it right the first time solves a lot of ills down the road, and skimping on the RF Ground, is a presciption for disaster.

Bruce in alaska long time Marine RadioMan.......
--
add a <2> before @

3765. coverage analysis using TIREM

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 19:57:01 UTC
From: MRW <mr.whatever@gmail.com>
Message-ID: <1149883021.281768.106120@y43g2000cwc.googlegroups.com>
Source record: 58207

Howdy... I was playing around with this propagation software on my friend's laptop. I had a coverage simulation running on 98.1MHz using a vertically polarized dipole. I decided to pick a location where they have rolling plains to be as close to an ideal freespace calculation. Here is my spec:

transmitter location: +41.083N, -98.395W
antenna height: 80 to 120 ft
antenna type: dipole (I decided to use 0dB for my gain just for reference)
polarization: vertical
terrain data: DTED
propagation model: TIREM
frequency: 98.1MHz
system losses: 5dB
TX power: 50W

So I came up with the following data:

antenna height: 80 ft
distance where power level is -110dBW: 13.3 miles

antenna height: 100 ft
distance where power level is -110dBW: 12.32 miles

antenna height: 120 ft
distance where power level is -110dBW: 13.3 miles

Why did my signal level drop at 100 ft?

3766. Re: Sinusoidal Antenna Currents

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 20:34:42 UTC
From: Dave <noone@nowhere.com>
Message-ID: <V8SdnUxwoYb1RhTZnZ2dnUVZ_qSdnZ2d@crocker.com>
Source record: 58208

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:z6hig.113516$dW3.81939@newssvr21.news.prodigy.com...
> Here's a quote from Kraus' "Antennas For All Applications"
> 3rd Edition, page 177, section 6-4:
>
> "The Thin Linear Antenna - In this section
> expressions for the far-field patterns of thin linear
> antennas will be developed. It is assumed that the antennas
> are symmetrically fed at the center by a balanced two-wire
> transmission line. The antennas may be of any length, but
> it is assumed that the current distribution is SINUSOIDAL.
> Current-distribution measurements indicate that this is a GOOD
> ASSUMPTION provided that the antenna is thin, i.e., when the
> conductor diameter is less than, say, lamda/100. Thus, the
> sinusoidal current distribution approximates the natural
> distribution on thin antennas." Emphasis mine.
>
> So Kraus gives us permission to treat the currents on a
> dipole as sinusoidal as long as the diameter of the element
> is less than 4 inches on 30 MHz or less than 40 inches on
> 3 MHz. So virtually all HF dipoles are thin-wire antennas.
>
> And since the current distribution is assumed sinusoidal, the
> arc-cosine function will yield the number of degrees a point
> is away from a current maximum point, e.g. the phase information
> for the forward traveling wave.
> --
> 73, Cecil, http://www.qsl.net/w5dxp

i believe in this description he is refering to the current distribution of the standing wave. that is, the classical sine curve that shows a maximum at the feedpoint of the 1/2 wave dipole and zeros at the ends. in this case the shape of the curve is a function of the sin or cos of the distance from the feedpoint divided by the leg length times pi/2 or 90 degrees, which ever you prefer.

however, that is not the phase of the forward traveling wave, that is the envelope of the sum of the forward and reverse waves... or the standing wave. the phase of a traveling wave is added to the omega*t value in the sin(wt+p) representation, but in a distributed system must be referenced not only to a time but also the location. or in simpler terms you can reference it to the time that the current crosses zero at a given point in the forward traveling wave. to get rid of the time dependence you must add the foward and reflected waves to get the standing wave, then you can make the classical sunusoidal dipole current plot.

3767. Re: coverage analysis using TIREM

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 20:37:51 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1149885471.455229.271130@i40g2000cwc.googlegroups.com>
Source record: 58209

I'd have to look at the antenna in my own antenna modeling program,
which I don't have right now to be sure of this, but I'd guess it has
something to do with the antenna being an integer number of wavelengths
above ground. 100 feet is almost exactly 10 wavelengths at 98.1MHz.

Do you have an antenna program that lets you look at the elevation
pattern of the antenna? My guess is that at 10 wavelengths high,
there's more energy in higher angle lobes which I would expect that a
line-of-sight coverage prediction program doesn't report anything
about.

Dan
N3OX

3768. Re: Sinusoidal Antenna Currents

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 21:26:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <jllig.21774$VE1.13373@newssvr14.news.prodigy.com>
Source record: 58210

Dave wrote:
> i believe in this description he is refering to the current distribution of
> the standing wave. that is, the classical sine curve that shows a maximum
> at the feedpoint of the 1/2 wave dipole and zeros at the ends. in this case
> the shape of the curve is a function of the sin or cos of the distance from
> the feedpoint divided by the leg length times pi/2 or 90 degrees, which ever
> you prefer.

Exactly, and that is the number of degrees by which the forward
traveling wave lags the source wave and therefore is the phase
angle of the forward traveling wave reference to the source wave.

> however, that is not the phase of the forward traveling wave, ...

Of course it is, referenced to a source phase angle of zero.
Assuming the source phase reference is zero degrees, the phase
of the forward traveling wave is related to the distance from
the source (modified by the velocity factor). That's just simple
physics.

Given the source current is 1.0 amps at zero degrees, the
standing wave current 1/2 way to the end of the antenna element
will be 0.707 amps at zero degrees. Arc-cos(0.707) = -45 degrees.
That's the phase angle of the forward current at that point since
it lags the source current. Hint: There are very close to 90 degrees
of antenna between the source and the end of a 1/2WL dipole since
it is 1/4 wavelength. Remember 360/4 = 90 degrees.
--
73, Cecil http://www.qsl.net/w5dxp

3769. Re: Quad feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 21:51:55 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <G0mig.82675$iB2.76967@bignews4.bellsouth.net>
Source record: 58211

```
"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote in message
news:syrcA5Pj9vhEFAFo@ifwtech.co.uk...
> Cecil Moore wrote:
>>Ken Bessler wrote:
>>> I just built a 3el 6m quad. Should I put a choke or balun
>>> at the feedpoint? What type?
>>
>>A few turns of coax will do the trick for 6m.
>>How about this solution from an earlier posting?
>>
>>|
>>|
>>| Driven
>>| Element
>>|
>>+====================================coax braid
>>
>>+------------------------------------coax center conductor
>>|
>>| ==============================+===coax braid
>>| spacing |
>>+--------------------------------+
>>| 1/4WL wire (~4.7')
>>|
>>
> The choke balun made from a small coil of coax would be easier to make. At
> my previous QTH, four turns of about 6in diameter made a big reduction in
> the levels of noise and birdies on 6m (even though those coil dimensions
> weren't optimized in any way).
>
> This kind of feedline choke is simple, cheap and low-loss, so by all means
> go ahead and use one. With a 3-element quad, you should be able to
> position the coil at the feedpoint while supporting its weight from the
> mast.
>
>
>
>
>
> --
> 73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
> http://www.ifwtech.co.uk/g3sek

Using a choke made a big difference in TVI for me.
```

3770. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 22:10:59 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <yimig.82682$iB2.11151@bignews4.bellsouth.net>
Source record: 58212
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

"Dave Oldridge" <doldridg@leavethisoutshaw.ca> wrote in message
news:Xns97DBA9FEC980Cdoldridgsprintca@64.59.135.159...
> Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net> wrote in news:blJhg.19147
> $VE1.18282@newssvr14.news.prodigy.com:
>
>> Reminds me of the time (many years ago), when the
>> new kid on the gang was ordered to "Wash the
>> Dishes" (microwave), on a 150 foot tower ! Kid
>> decided it was time to quit! Had to
>> tell him it was a JOKE, or get the WHOLE Gang
>> in hot water !!! Jim NN7K
>
> Yeah. When I was in the RCAF many years ago, a common thing was to ask a
> newbie to go to the tool crib for a bucket of propwash.
>
>
> --
> Dave Oldridge+
> ICQ 1800667

When I reached my first duty assignment in the USAF I was sent on a fools errand to get 1000 yards of flight line. When I got to the place I was suppose to pick it up I told the guys there that I knew what flightline was but I had an idea for a joke on the guy that sent me down there.They were very happy to help. We went out back of the base and loaded up a truck with rubble from flightline construction then took it back and put it the POV pickup of they guy who had sent me out. When I went back to the shop I told him I had the flightline but didnt think I had the thousand yards he had requested. This got him and everyone else in the shop curious and they all wanted to see what I had brought back. Thats when I told him to go look in the back of his pickup.

3771. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-09 22:58:27 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <9luj82h4k68g3r71qm0c4qd3ijie9pk4ei@4ax.com>
Source record: 58213

On Fri, 09 Jun 2006 15:33:59 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>One thing interesting about the Cobra-Jr is that if it is
>made 62 feet long instead of 73 feet long, it becomes
>resonant around 3.85 MHz with a feedpoint impedance of
>about 16 ohms. That's an SWR of only about 3:1 on coax.
>or ~1.3:1 using a 1:4 balun. That's a half size antenna
>for 75m that is only about 1.5 dB down from a full size
>1/2WL dipole.

Where are you observing resonance?

I created a model with ~73' length that does resonate (low Z) at the
dipole centre around 3.6MHz. Other factors affect resonance a little,
but you may want to check your model to see it is laid out properly
and connected up properly.

Owen
--

3772. Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 02:27:25 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <i6qig.38218$4H.25325@dukeread03>
Source record: 58214

Take 2 antennas on 6m - one is an inverted V and the
other a 3el quad. Both are mounted at near the same
height and fed with about the same length of coax.

Is it normal for the quad to be quieter?

Signals are louder on the quad - it's just the background
noise is higher on the V.

Just curious.....

--
73's de Ken KG0WX - Kadiddlehopper #11808,
Flying Pigs #-1055, Grid EM17io, FT-857D, AL-84,
Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B

3773. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 03:22:02 UTC
From: w8ji@akorn.net
Message-ID: <1149909722.159034.5610@j55g2000cwa.googlegroups.com>
Source record: 58215

> >I have the Ultralite Senior and am very happy with it. I have it at 30
> > feet with the ends dropping down about 15 feet since my lot isn't big
> > enough. I bought it primarily as a local contact antenna since
> > everything else I have is a vertical of one type or another. It turns
> > out to work much better than I expected. I have worked the South
> > Pacific, Europe and Peter One on it with 100 watts

> Yes, the Ultralite Senior is quite effective! Mine is at 60 feet at the
> apex and the "Vee" droops down to about 20 or so. I get pretty nice signal
> reports both from local and afar. You can't always win 'em all, but when an
> antenna works *reasonably* well most anywhere you work, a fella can't ask
> for much more! And I am perfectly happy with mine.

We had a second station in the 160 meter CQWW contest moving up and down the band working people. That staion just used a 160 meter dipole at 60 or 70 feet. I was amazed they could work anyone they called and got through pileups very quickly, often on one call.

Of course when I compare that antenna to the main transmitting antennas, it is typically 10-20 db weaker. Sometimes it is 40-50dB weaker.

Of course I can work anything I can hear with my mobile using a 10 foot tall antenna. I've worked Europe on SSB 160 meters and Australia several times on CW, and I've worked all over the world on 80 and 75 meters. I have even worked Australia longpath on 40 meters in the late aftenoon (VK6VZ) while sitting in rush hour traffic, and I've done that more than once!

All of the above is absolutely true, and all of the above is totally meaningless when it comes to quantifying how well an antenna actually works. The only meaningful part is we are happy with the contacts, and if I didn't have a better antenna I'd swear my 70 foot high 160 dipole or my mobile antennas were the best thing on the planet.

73 Tom

3774. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 03:29:11 UTC
From: w8ji@akorn.net
Message-ID: <1149910151.859293.41560@j55g2000cwa.googlegroups.com>
Source record: 58216

Ken Bessler wrote:
> Take 2 antennas on 6m - one is an inverted V and the
> other a 3el quad. Both are mounted at near the same
> height and fed with about the same length of coax.
>
> Is it normal for the quad to be quieter?

Noise almost always arrives from multiple directions and from different directions than the desired signal.

It is normal for ANY antenna to be quieter when it is more directional. As a matter of fact, it is expected that S/N ratio is a direct function of directivity of the antenna as long as the noise and signal are not coming from the same direction.

To answer your question, it would be very abnormal if your quad (or Yagi or any other directional antenna) was noisier than a broad pattern antenna like your Inverted Vee dipole.

By the way, a real Inverted V is a longwire array fed at one end. I'm assuming you really have an Inverted Vee dipole, and not a true Inverted V.

73 Tom

3775. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 04:42:57 UTC
From: Buck <not@this.time>
Message-ID: <g7jk82hcnhrlfnkdk251c3si2ts47t8cpt@4ax.com>
Source record: 58217

On Fri, 09 Jun 2006 00:59:53 GMT, Owen Duffy <owen@no.where> wrote:

>Mike, did you notice "Mystery's" comment re spending more money on a
>"tuner extender": "Not the answer I wanted to hear". She/he may be
>even less interested in the spend on the tuner you describe.
>
>I agree with you that antenna looks worth a try / perseverance, but it
>will probably need a wider range tuner than commonly fitted internal
>to transceivers unless you experiment (what's that!) to find a
>feedline length that the rig/runer accommodates on all bands, or
>switch feedline lengths.
>
>Owen

How is the "tuner extender" made? is it simple enough to duplicate
with a home-brew?

--
73 for now
Buck
N4PGW

3776. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 05:08:37 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <ptsig.28542$QP4.5306@fed1read12>
Source record: 58218
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

"Jerry" <joxendi@bellsouth.net> wrote in message
news:SKfig.7450$gv2.4890@bignews3.bellsouth.net...

< snip >

> I don't really like it that CW is going away, but it WILL go away so far
as
> necessity goes same way we don't commute to work in our '56 Fairlane. So
we
> ADAPT to change instead of vainly clinging to the way WE think it should
> stay forever and a day. When we are dead and gone, the world will be
vastly
> different than we would've remembered it!

It isn't going away any more than tubes are going away or crystal-controlled oscillators are going away. Those of us who wish to use them are free to do so (and this freedom will probably continue for a long time).

Railroad fans admire steam locomotives, car buffs fawn over a Model T and old men love their old wives. But in each case, the object of their affection is, like Morse Code, past its peak of popularity and practicality. Yes, learn Morse, use Morse, even love Morse -- but for crying out loud, stop pretending it's the be-all-end-all of ham radio -- because it isn't.

Yes, yes, yes -- I know Morse Code will get through when other modes fail. I've heard it a hundred times, so it must be true. However, this doleful situation almost never presents itself. If this were a practical view of the world, then we should all buy Army tanks, the better to navigate the rubble of a natural disaster when all other means of transportation are unavailable. (Not a perfect metaphor; work with me, OK?)

Although I have no objection to YOU using Morse Code, I personally resent it because I can't learn it. I've wasted countless hours trying and it just doesn't happen for me. Too bad, so sad. But there are rays of sunshine. The FCC may just lift the requirement off my shoulders before another year passes and in the meantime, maybe I'll rack up more club FD points on UHF/VHF voice than the HF guys on all modes combined. I did it in both 2004 and 2005.

"Sal"
(KD6VKW)

3777. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 05:25:54 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <galk82l1d4pq8htk7t2u1n955u9at82idf@4ax.com>
Source record: 58219

On Fri, 09 Jun 2006 05:13:04 GMT, Owen Duffy <owen@no.where> wrote:

>The Cobra Junior, a 72' long linear loaded dipole, looks interesting
>in terms of a short antenna for low HF bands with reasonably low
>losses. I have run some preliminary NEC models and analysed the feed
>system loss with 25m of W551 ladder line, they look promising.

Well, the antenna system looks promising on some bands, but not
others. Draft article is at http://www.vk1od.net/cobra , constructive
comments appreciated.

The article includes a link to a graph of the modelled system losses
for the Cobra Senior, but it looks pretty uninteresting with ~9dB of
system loss at 160m... there is no shortage of poor performing
antennas on 160m.

Owen
--

3778. Re: impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 07:38:25 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <448A76F1.6070302@killspam.internode.on.net>
Source record: 58220

kretko wrote:
> Hello !
>
> Im looking for a formula impedance of conductor between two ground plane.
>
> _________
> *
> h1
> *
> p
> *
> h2
> *
> _________
>
> p -conductor
> h1 = h2
>
> Thank you for your help !
>
> Goodlack ! ! !

OK, let h=2*h1 and d= wire diameter
Then, for p/h < 0,75
Zo = (138/sqrt(e))*log10(4h/(pi*d))
where pi = 3.14159.... and e = 2.7183...
Alan

3779. Re: Quad feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 09:39:36 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <bHWBdmDYNpiEFA52@ifwtech.co.uk>
Source record: 58221

Jimmie D wrote:
>
>"Ian White GM3SEK" <gm3sek@ifwtech.co.uk> wrote
>>>
>> The choke balun made from a small coil of coax would be easier to make. At
>> my previous QTH, four turns of about 6in diameter made a big reduction in
>> the levels of noise and birdies on 6m (even though those coil dimensions
>> weren't optimized in any way).
>>
>
>Using a choke made a big difference in TVI for me.
>
Others have reported the same.

If you have RFI, either on transmit or on receive, then a feedline choke ("current balun") at the antenna feedpoint would be the first thing to try. It's easy to install - but even easier if you install it at the same time as the antenna.

"Prevention is better than cure" is a very good principle.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3780. FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 09:55:25 UTC
From: Boborato <atmosfera.web@gmail.com>
Message-ID: <e6e4u3jel1@news.nivel5.cl>
Source record: 58222

Hi group.

I wanna know how can I get the FM signal without that nasty 'pink' noise.

I'm not using any kind of external antenna.

Greetings!!

3781. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 11:08:26 UTC
From: w8ji@akorn.net
Message-ID: <1149937705.958034.23690@u72g2000cwu.googlegroups.com>
Source record: 58223

Buck wrote:
>
> How is the "tuner extender" made? is it simple enough to duplicate
> with a home-brew?
>

A tuner extender is about worthless. It is an autotransformer. Nearly every auto tuner has more impedance range than the ferrite core autotransformer used to extend the tuner.

The problem really is the Cobra does NOT have resonances at the points that are claimed, so impedance is off the scales on some Ham bands.

I measured a Cobra that was supposed to hit 80, and it missed by a few MHz. A person would be much better off doing something else, although I'm sure with a good tuner contacts could be made on any band.

After all.... I can work Europe on 160 SSB and VK's on CW with my mobile antenna, and it is less than 1% efficient and that is on 160!!

73 Tom

3782. Re: Quad feedpoint

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 11:14:06 UTC
From: w8ji@akorn.net
Message-ID: <1149938046.606610.214520@j55g2000cwa.googlegroups.com>
Source record: 58224

Ian wrote:
> >> The choke balun made from a small coil of coax would be easier to make. At
> >> my previous QTH, four turns of about 6in diameter made a big reduction in
> >> the levels of noise and birdies on 6m (even though those coil dimensions
> >> weren't optimized in any way).

>> Jimmie D wrote:
> >Using a choke made a big difference in TVI for me.
> >

Ian wrote:
> Others have reported the same.
>
> If you have RFI, either on transmit or on receive, then a feedline choke
> ("current balun") at the antenna feedpoint would be the first thing to
> try. It's easy to install - but even easier if you install it at the
> same time as the antenna.

Why would anyone wanting the antenna to radiate and not the feedline
ever make a direct connection without some planning???

It seems foolish to go through the effort of puting up an antenna and
not doing something so simple in advance rather than waiting for
problems.

73 Tom

3783. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 11:34:59 UTC
From: w8ji@akorn.net
Message-ID: <1149939299.081665.138120@m38g2000cwc.googlegroups.com>
Source record: 58225
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

New Ham wrote:

> What good's a hat if it don't keep the antenna dry? I think I'll keep it
> though, for some odd reason my SWR's are better.

What are SWR's? Does your antenna have multiple standing wave ratios?
Were they sick? Did they have MPD? Do you SWR's look in the mirror each
morning and say "well, who are we going to be today?"

Does the standing wave ratio own something called "are better"?

Are SWR's related to 73's, and if so does the hat help 73's also? Is
your antenna still a fertile female that gets wet whenever a large
capacitance hat climbs on top?

A local school had "Spelling Award's Day" on a sign out front. When I
saw a pamphlet, it said "Selling Awards' Day".

Maybe it was award's for selling extra 's as a school project
"SWR's" and "73's" , or should I s'ay award's for s'ellin extras'
s'sses ?

73's and Happy SWR's to all,
Tom's

3784. Re: coverage analysis using TIREM

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 12:02:18 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <448ab3fd_2@newsfeed.slurp.net>
Source record: 58076

"MRW" wrote
> ... Why did my signal level drop at 100 ft?

The number that TIREM calculates will depend among other things on the vector sum of the direct and ground-reflected or diffracted rays for the model conditions -- which are a function of ERP, antenna height, path length, and the terrain profile along that radial. Probably the combination of these at the 100 ft elevation of the transmit antenna was responsible for the result you saw.

If you get a chance, check several other radials to see what happens.

RF

3785. Dumb question #433,444,007

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 12:12:42 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <%Gyig.40099$4H.35436@dukeread03>
Source record: 58077

If I prune the driven element on my 6m 3el quad for best
swr, do I have to do anything to the reflector or director?
--
73's de Ken KG0WX - Kadiddlehopper #11808,
Flying Pigs #-1055, Grid EM17io, FT-857D, AL-84,
Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B

3786. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 12:21:34 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <hcadnTpysL_RJBfZnZ2dnUVZ_qWdnZ2d@comcast.com>
Source record: 58078

Pray tell, in 50+ years of ham radio I have never heard 'pink noise'.

What is it??

Boborato wrote:
> Hi group.
>
> I wanna know how can I get the FM signal without that nasty 'pink' noise.
>
> I'm not using any kind of external antenna.
>
> Greetings!!
>
>

3787. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 12:25:12 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <JSyig.40100$4H.30260@dukeread03>
Source record: 58079

"Dave" <W1MCE@comcast.net> wrote in message
news:hcadnTpysL_RJBfZnZ2dnUVZ_qWdnZ2d@comcast.com...
> Pray tell, in 50+ years of ham radio I have never heard 'pink noise'.
>
> What is it??
>
> Boborato wrote:
> > Hi group.
> >
> > I wanna know how can I get the FM signal without that nasty 'pink'
noise.
> >
> > I'm not using any kind of external antenna.
> >
> > Greetings!!
> >
> >
>

I just used NCH tone generator to make pink noise - sounds
like what you hear on a AM when you open the squelch. I can
email you a sample if you'd like. :-)

Ken

3788. Re: Dumb question #433,444,007

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 12:47:08 UTC
From: Dave <noone@nowhere.com>
Message-ID: <EtWdnX9CFKPIIhfZnZ2dnUVZ_u-dnZ2d@crocker.com>
Source record: 58080

no

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:%Gyig.40099$4H.35436@dukeread03...
> If I prune the driven element on my 6m 3el quad for best
> swr, do I have to do anything to the reflector or director?
> --
> 73's de Ken KG0WX - Kadiddlehopper #11808,
> Flying Pigs #-1055, Grid EM17io, FT-857D, AL-84,
> Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B
>
>

3789. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 13:06:10 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <448ac2f5_5@newsfeed.slurp.net>
Source record: 58082

"Boborato" >
> I wanna know how can I get the FM signal without that
> nasty 'pink' noise. I'm not using any kind of external antenna.

An FM receiver needs a certain minimum level of r-f voltage at its antenna input terminals to meet its noise performance specification. Stereo mode requires more r-f than monaural, for the same S/N at the receiver output.

No doubt if you use an antenna capable of giving your receiver the r-f input signal it needs, your noise level will drop to inaudibility (at least with normal programming).

RF

3790. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 13:08:24 UTC
From: TSnCS <noboday@home.com>
Message-ID: <f6idnfJsSrhmXxfZnZ2dnUVZ_oudnZ2d@comcast.com>
Source record: 58081

http://en.wikipedia.org/wiki/Pink_noise

Then compare to http://en.wikipedia.org/wiki/White_noise

"Dave" <W1MCE@comcast.net> wrote in message
news:hcadnTpysL_RJBfZnZ2dnUVZ_qWdnZ2d@comcast.com...
> Pray tell, in 50+ years of ham radio I have never heard 'pink noise'.
>
> What is it??
>
> Boborato wrote:
>> Hi group.
>>
>> I wanna know how can I get the FM signal without that nasty 'pink' noise.
>>
>> I'm not using any kind of external antenna.
>>
>> Greetings!!
>

3791. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 14:07:48 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <UmAig.94651$H71.39601@newssvr13.news.prodigy.com>
Source record: 58083

Not to mention that noise is normally a phenonmen
of the Vertical Plane (which , depending on how
steep your inverted "vee" is, will contain some
vertical component, while the yagi/quad is
Horizontal to the plane. This has been a factor
on vhf for years, as noise levels tend to peak
at 6 meters (50 MHz). The MAIN reason that F.M.
is Vertical polarized is that for mobiles, it is
easy to construct an omni-directional antenna.
Most vhf manuals detail this effect! Jim NN7K

w8ji@akorn.net wrote:
> Ken Bessler wrote:
>
>>Take 2 antennas on 6m - one is an inverted V and the
>>other a 3el quad. Both are mounted at near the same
>>height and fed with about the same length of coax.
>>
>>Is it normal for the quad to be quieter?
>
>
> Noise almost always arrives from multiple directions and from different
> directions than the desired signal.
>
> It is normal for ANY antenna to be quieter when it is more directional.
> As a matter of fact, it is expected that S/N ratio is a direct function
> of directivity of the antenna as long as the noise and signal are not
> coming from the same direction.
>
> To answer your question, it would be very abnormal if your quad (or
> Yagi or any other directional antenna) was noisier than a broad pattern
> antenna like your Inverted Vee dipole.

>
> 73 Tom
>

3792. Re: Dumb question #433,444,007

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 14:22:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <HAAig.94653$H71.12190@newssvr13.news.prodigy.com>
Source record: 58084

Ken Bessler wrote:
> If I prune the driven element on my 6m 3el quad for best
> swr, do I have to do anything to the reflector or director?

For beams, the desired radiation pattern is usually
more important than minimum SWR. Using EZNEC, I've
seen a 4:1 SWR yield the desired pattern where
at the minimum 1.5:1 SWR point the F:B ratio was
terrible.
--
73, Cecil http://www.qsl.net/w5dxp

3793. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 14:25:50 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ODAig.94655$H71.16597@newssvr13.news.prodigy.com>
Source record: 58085

Jim - NN7K wrote:
> Not to mention that noise is normally a phenonmen of the Vertical Plane
> (which , depending on how steep your inverted "vee" is, will contain some
> vertical component, while the yagi/quad is Horizontal to the plane.

Quads are a lot less noisy than Yagis when the wind
is blowing in the Arizona desert. Quads have a DC
short across the feedpoint that reduces noise from
static buildup.
--
73, Cecil http://www.qsl.net/w5dxp

3794. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 15:09:40 UTC
From: "g. beat"
Message-ID: <24KdnSEG--9afRfZnZ2dnUVZ_u-dnZ2d@comcast.com>
Source record: 58086

"Richard Fry" <rfry@adams.net> wrote in message
news:448ac2f5_5@newsfeed.slurp.net...
> "Boborato" >
>> I wanna know how can I get the FM signal without that
>> nasty 'pink' noise. I'm not using any kind of external antenna.
> ----------------
>
> An FM receiver needs a certain minimum level of r-f voltage at its antenna
> input terminals to meet its noise performance specification. Stereo mode
> requires more r-f than monaural, for the same S/N at the receiver output.
>
> No doubt if you use an antenna capable of giving your receiver the r-f
> input signal it needs, your noise level will drop to inaudibility (at
> least with normal programming).
>
> RF

In addition to Richard's comments, many higher quality FM receivers employ a
"muting" switch on the front panel.
The Kenwood KT-8300 has 2 selectable mute settings in addition to off
while the NAD 4020B has a single setting with an on/off switch.

gb

3795. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 15:22:47 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <CbydnbXLn8RYfhfZnZ2dnUVZ_rednZ2d@comcast.com>
Source record: 58087

Ken Bessler wrote:
> "Dave" <W1MCE@comcast.net> wrote in message
> news:hcadnTpysL_RJBfZnZ2dnUVZ_qWdnZ2d@comcast.com...
>
>>Pray tell, in 50+ years of ham radio I have never heard 'pink noise'.
>>
>>What is it??
>>
SNIPPED
>
> I just used NCH tone generator to make pink noise - sounds
> like what you hear on a AM when you open the squelch. I can
> email you a sample if you'd like. :-)
>
> Ken
>
>

For years we called that 'white' noise or 'background' noise.

Now, with a full quieting signal, >20 uv, if it's being heard on FM I'd suspect the discriminator or limiter circuits. I'd start looking at the limiter.

3796. Re: impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 15:47:36 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1149954456.683350.38020@m38g2000cwc.googlegroups.com>
Source record: 58088

Ahem. In your formula, e is the relative dielectric constant of the dielectric between the planes and surrounding the wire, NOT the base of natural logarithms. And I assume that "p/h < 0,75" should be d/h < 0,75. Then it's equivalent to what I posted earlier.

Cheers,
Tom

Alan Peake wrote:
> kretko wrote:
> > Hello !
> >
> > Im looking for a formula impedance of conductor between two ground plane.
> >
> > _________
> > *
> > h1
> > *
> > p
> > *
> > h2
> > *
> > _________
> >
> > p -conductor
> > h1 = h2
> >
> > Thank you for your help !
> >
> > Goodlack ! ! !
>
>
> OK, let h=2*h1 and d= wire diameter
> Then, for p/h < 0,75
> Zo = (138/sqrt(e))*log10(4h/(pi*d))
> where pi = 3.14159.... and e = 2.7183...
> Alan

3797. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 15:52:24 UTC
From: W3JDR <joe@roccis.com>
Message-ID: <YUBig.3630$%m5.685@trnddc04>
Source record: 58089

Dave,

If you've never heard of 'pink' noise, then you're probably not a student of noise.

In noise parlance, 'white' noise is the term that is usually used for non-bandlimited noise (ie, 'broadband noise'). "Pink' noise, on the other hand, is a term used to refer to bandlimited noise. In practice, anything that comes out of the audio channel of a communications receiver is really 'pink' noise, as the bandwidth is limited to a few KHz. On the other hand, the noise that is incident at the antenna or generated in the front-end is much broader in bandwidth and is more deserving of the term 'white' noise.

Joe
W3JDR

"Dave" <W1MCE@comcast.net> wrote in message
news:hcadnTpysL_RJBfZnZ2dnUVZ_qWdnZ2d@comcast.com...
> Pray tell, in 50+ years of ham radio I have never heard 'pink noise'.
>
> What is it??
>
> Boborato wrote:
>> Hi group.
>>
>> I wanna know how can I get the FM signal without that nasty 'pink' noise.
>>
>> I'm not using any kind of external antenna.
>>
>> Greetings!!
>

3798. Re: Dumb question #433,444,007

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 17:12:13 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <O3Dig.40117$4H.36191@dukeread03>
Source record: 58090

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:HAAig.94653$H71.12190@newssvr13.news.prodigy.com...
> Ken Bessler wrote:
> > If I prune the driven element on my 6m 3el quad for best
> > swr, do I have to do anything to the reflector or director?
>
> For beams, the desired radiation pattern is usually
> more important than minimum SWR. Using EZNEC, I've
> seen a 4:1 SWR yield the desired pattern where
> at the minimum 1.5:1 SWR point the F:B ratio was
> terrible.
> --
> 73, Cecil http://www.qsl.net/w5dxp

I did model this antenna with EZNEC but I forgot to take
into account the fact that the wire used is insulated. I think
that screwed up the resulting antenna. Maybe? Would an
insulating jacket reduce the VF of the wire? I've accounted
for everything else, wire gauge/loss, ant height, type of
ground, etc.

Ken
KG0WX

3799. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 17:12:28 UTC
From: cq-dx@arrl.net
Message-ID: <oidffosd-sdjnrekj32-sdjfdfsa@news.arrl.net>
Source record: 58091
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

In article <1149939299.081665.138120@m38g2000cwc.googlegroups.com>, w8ji@akorn.net wrote:
>
>New Ham wrote:
>
>> What good's a hat if it don't keep the antenna dry? I think I'll keep it
>> though, for some odd reason my SWR's are better.
>
>What are SWR's? Does your antenna have multiple standing wave ratios?
>Were they sick? Did they have MPD? Do you SWR's look in the mirror each
>morning and say "well, who are we going to be today?"
>
>Does the standing wave ratio own something called "are better"?
>
>Are SWR's related to 73's, and if so does the hat help 73's also? Is
>your antenna still a fertile female that gets wet whenever a large
>capacitance hat climbs on top?
>
>A local school had "Spelling Award's Day" on a sign out front. When I
>saw a pamphlet, it said "Selling Awards' Day".
>
>Maybe it was award's for selling extra 's as a school project
>"SWR's" and "73's" , or should I s'ay award's for s'ellin extras'
>s'sses ?
>
>73's and Happy SWR's to all,
>Tom's

It's a multi-band vertical and every band different Standing Wave Radio's.

3800. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 18:54:18 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <D9ydnUT58NdPiBbZRVnyhA@bt.com>
Source record: 58092

White noise has a uniformly distributed power spectrum.

Pink noise has a spectrum which smoothly decreases in power with
increasing frequency. That is, power is concentrated at the low
frequency (or red) end of the spectrum.

In a narrow band of audio frequencies they both sound the same. There
is no detectable difference between the high and low frequency ends of
the narrow band.

The two terms are usually applied to very wideband communications
systems, ie., from VLF to UHF.

Purely randomly generated noise is described as white. Its
statistical properties are defined as having a Gaussian amplitude
distribution. It is by far the most common natural source of noise.

See Google for the Gaussian Distribution or Function.

It is simple enough : Exp(- x*x)).

It occurs throughout Science, Engineering, Medicine, Economics,
Statistics and in all facets of human activities, life on this Planet
and dead materials.

Even politics. It may be said that Blair and Bush lie in the extreme
tail of the Gaussian Distribution. Which of the two tails I have been
unable to fathom.

Reg.

3801. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 19:48:22 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <Y8WdnZrDI_GevxbZnZ2dnUVZ_sednZ2d@comcast.com>
Source record: 58093
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Methinks your leg was being pulled.

The SWR with the apostrophe s is a grammatical error. The apostrophe s indicates that the SWR is possessive, that the SWR owns something; or, that the SWR is doing something. The apostrophe s is not plural!!

The plural, multiple, SWR is denoted SWRs.

New Ham wrote:

> In article <1149939299.081665.138120@m38g2000cwc.googlegroups.com>, w8ji@akorn.net wrote:
>
>>New Ham wrote:
>>
>>
>>>What good's a hat if it don't keep the antenna dry? I think I'll keep it
>>>though, for some odd reason my SWR's are better.
>>
>>What are SWR's? Does your antenna have multiple standing wave ratios?
>>Were they sick? Did they have MPD? Do you SWR's look in the mirror each
>>morning and say "well, who are we going to be today?"
>>
>>Does the standing wave ratio own something called "are better"?
SNIPPED

3802. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 19:48:55 UTC
From: jawod <jawod@fuse.net>
Message-ID: <448B2227.2090601@fuse.net>
Source record: 58095
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

Sal M. Onella wrote:
> "Jerry" <joxendi@bellsouth.net> wrote in message
> news:SKfig.7450$gv2.4890@bignews3.bellsouth.net...
>
> < snip >
>
>>I don't really like it that CW is going away, but it WILL go away so far
>
> as
>
>>necessity goes same way we don't commute to work in our '56 Fairlane. So
>
> we
>
>>ADAPT to change instead of vainly clinging to the way WE think it should
>>stay forever and a day. When we are dead and gone, the world will be
>
> vastly
>
>>different than we would've remembered it!
>
>
> It isn't going away any more than tubes are going away or crystal-controlled
> oscillators are going away. Those of us who wish to use them are free to do
> so (and this freedom will probably continue for a long time).
>
> Railroad fans admire steam locomotives, car buffs fawn over a Model T and
> old men love their old wives. But in each case, the object of their
> affection is, like Morse Code, past its peak of popularity and practicality.
> Yes, learn Morse, use Morse, even love Morse -- but for crying out loud,
> stop pretending it's the be-all-end-all of ham radio -- because it isn't.
>
> Yes, yes, yes -- I know Morse Code will get through when other modes fail.
> I've heard it a hundred times, so it must be true. However, this doleful
> situation almost never presents itself. If this were a practical view of
> the world, then we should all buy Army tanks, the better to navigate the
> rubble of a natural disaster when all other means of transportation are
> unavailable. (Not a perfect metaphor; work with me, OK?)
>
> Although I have no objection to YOU using Morse Code, I personally resent it
> because I can't learn it. I've wasted countless hours trying and it just
> doesn't happen for me. Too bad, so sad. But there are rays of sunshine.

> The FCC may just lift the requirement off my shoulders before another year
> passes and in the meantime, maybe I'll rack up more club FD points on
> UHF/VHF voice than the HF guys on all modes combined. I did it in both 2004
> and 2005.
>
> "Sal"
> (KD6VKW)
>
>
too bad, so sad, indeed

You know, as long as there are effective band plans allowing for CW,
data, voice, etc., I really don't care what the FCC does. I learned
Morse code as a teenager so I really can't relate to the impossibility
of the task. Don't know how THIS old dog would do with a new trick.
All I can say is CW is very enjoyable to me and deserves a prominent
place within the bands.

3803. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 19:49:22 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <Y8WdnZXDI_GivxbZnZ2dnUVZ_sednZ2d@comcast.com>
Source record: 58094

TU

W3JDR wrote:

> Dave,
>
> If you've never heard of 'pink' noise, then you're probably not a student of
> noise.
>
> In noise parlance, 'white' noise is the term that is usually used for
> non-bandlimited noise (ie, 'broadband noise'). "Pink' noise, on the other
> hand, is a term used to refer to bandlimited noise. In practice, anything
> that comes out of the audio channel of a communications receiver is really
> 'pink' noise, as the bandwidth is limited to a few KHz. On the other hand,
> the noise that is incident at the antenna or generated in the front-end is
> much broader in bandwidth and is more deserving of the term 'white' noise.
>
> Joe
> W3JDR
>
>
> "Dave" <W1MCE@comcast.net> wrote in message
> news:hcadnTpysL_RJBfZnZ2dnUVZ_qWdnZ2d@comcast.com...
>
>>Pray tell, in 50+ years of ham radio I have never heard 'pink noise'.
>>
>>What is it??
>>
>>Boborato wrote:
>>
>>>Hi group.
>>>
>>>I wanna know how can I get the FM signal without that nasty 'pink' noise.
>>>
>>>I'm not using any kind of external antenna.
>>>
>>>Greetings!!
>>
>
>

3804. Re: 3 Killed in Fall From Iowa TV Tower

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 20:39:56 UTC
From: billy <tower_climber_guy@towerclimberguy.com>
Message-ID: <448B2E1B.37B37F6D@towerclimberguy.com>
Source record: 58096

hi

this is indeed tragic accident and could have been prevented,

tower workers are one of the top hazardous occupations
with high rate of death.

be care full up there

3805. Re: Dumb question #433,444,007 - Answer from ARRL Ant Book?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 20:51:43 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <zhGig.40126$4H.32643@dukeread03>
Source record: 58097

"Ken Bessler" <kg0wx@NOSPAMyahoo.com> wrote in message
news:O3Dig.40117$4H.36191@dukeread03...
>
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:HAAig.94653$H71.12190@newssvr13.news.prodigy.com...
> > Ken Bessler wrote:
> > > If I prune the driven element on my 6m 3el quad for best
> > > swr, do I have to do anything to the reflector or director?
> >
> > For beams, the desired radiation pattern is usually
> > more important than minimum SWR. Using EZNEC, I've
> > seen a 4:1 SWR yield the desired pattern where
> > at the minimum 1.5:1 SWR point the F:B ratio was
> > terrible.
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
>
> I did model this antenna with EZNEC but I forgot to take
> into account the fact that the wire used is insulated. I think
> that screwed up the resulting antenna. Maybe? Would an
> insulating jacket reduce the VF of the wire? I've accounted
> for everything else, wire gauge/loss, ant height, type of
> ground, etc.
>
> Ken
> KG0WX

OK now I'm really starting to think I should prune my reflector
and director - here's a quote from the ARRL Antenna Book
2003, page 12-4:

"In practice, it has been found that the length around the loop
should be approximately 3.5% greater than the self-resonant
length if the element is a reflector, and about 3.0% shorter than
the self-resonant length if the parasitic element is a director."

I built my 6m quad with a 240.64" driven element which I had
to trim 6" to get the SWR where I wanted it (low end of 50mhz).

My reflector is 246.64" and my director is 233.41".

Help? Do I trim or not? I have done some tests with the ant
up and I'm noticing my F/B ratio is not as good as the EZNEC
model predicted (30.62 db predicted, I'm seeing maybe 2-3db)

Ken KG0WX
Always learning.....

3806. Re: Dumb question #433,444,007 - Answer from ARRL Ant Book?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 21:50:34 UTC
From: w8ji@akorn.net
Message-ID: <1149976234.598362.144030@g10g2000cwb.googlegroups.com>
Source record: 58098

Ken Bessler wrote:
> Help? Do I trim or not? I have done some tests with the ant
> up and I'm noticing my F/B ratio is not as good as the EZNEC
> model predicted (30.62 db predicted, I'm seeing maybe 2-3db)

The Handbook means the self-resonant frequency with no other elements around. They do NOT mean compared to the size of the driven element.

A driven element can move higher or lower in frequency as you add other elements, depending on the tuning of the other elements.

I usually do all my F/B tuning first, and then SWR last. By the way, I HOPE you have a balun at the feedpoint. Without a balun at the feedpoint, the F/B can be seriously diminished.

73 Tom

3807. Re: Dumb question #433,444,007 - Answer from ARRL Ant Book?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 21:55:54 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <LdHig.40130$4H.36879@dukeread03>
Source record: 58099

<w8ji@akorn.net> wrote in message
news:1149976234.598362.144030@g10g2000cwb.googlegroups.com...
>
> Ken Bessler wrote:
> > Help? Do I trim or not? I have done some tests with the ant
> > up and I'm noticing my F/B ratio is not as good as the EZNEC
> > model predicted (30.62 db predicted, I'm seeing maybe 2-3db)
>
>
> The Handbook means the self-resonant frequency with no other elements
> around. They do NOT mean compared to the size of the driven element.
>
> A driven element can move higher or lower in frequency as you add other
> elements, depending on the tuning of the other elements.
>
> I usually do all my F/B tuning first, and then SWR last. By the way, I
> HOPE you have a balun at the feedpoint. Without a balun at the
> feedpoint, the F/B can be seriously diminished.
>
> 73 Tom
>

I have about 8 turns of coax at the feedpoint. Is that good enough or
do I need a 1:1 balun also?

Thanks for the help!

Ken KG0WX

3808. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 21:56:43 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1149976603.405038.48210@i40g2000cwc.googlegroups.com>
Source record: 58100
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Dave wrote:
> Methinks your leg was being pulled.
>

"The SWR with the apostrophe s is a grammatical error.
The apostrophe s indicates that the SWR is possessive,
that the SWR owns something; or, that the SWR is
doing something. The apostrophe s is not plural!!

The plural, multiple, SWR is denoted SWRs."

- -

How To - Use an Apostrophe :
http://www.everything2.com/index.pl?node_id=119095
PLURALS - When you add an 's' to make a plural,
it NEVER takes an apostrophe.
Never. There are no exceptions.
The same is True for Plurals of Abbreviations
- it is A.T.M.s, not A.T.M.'s
- itr is G.P.s not G.P.'s.
NOTE - These Rules are those which Apply in Modern British English
(as taught in High Schools and Universities throughout the
Commonwealth).

FWIW - The King's English which is often NOT Spoken or Written by
Americans.

Mind Your Apostrophes
http://betweenborders.com/wordsmithing/mind-your-apostrophes/
http://www.soyouwanna.com/site/syws/wrerrors/wrerrors3.html

Punctuation and Capitalization: Using the Apostrophe
http://rwc.hunter.cuny.edu/reading-writing/on-line/apostrop.html
http://owl.english.purdue.edu/handouts/grammar/g_apost.html
http://www.wheaton.edu/learnres/writectr/Resources/apostrophe.htm
http://depts.gallaudet.edu/englishworks/grammar/using-s.htm
http://projects.uwc.utexas.edu/handouts/?q=node/11
http://www.asu.edu/english/englished/docs/Apostrophes_pp_5-6.pdf

often a mangler and tangler of : Words, Meanings,
Capitalization and Punctuation ~ RHF
.
.

. .

>
> New Ham wrote:
>
> > In article <1149939299.081665.138120@m38g2000cwc.googlegroups.com>, w8ji@akorn.net
wrote:
> >
> >>New Ham wrote:
> >>
> >>
> >>>What good's a hat if it don't keep the antenna dry? I think I'll keep it
> >>>though, for some odd reason my SWR's are better.
> >>
> >>What are SWR's? Does your antenna have multiple standing wave ratios?
> >>Were they sick? Did they have MPD? Do you SWR's look in the mirror each
> >>morning and say "well, who are we going to be today?"
> >>
> >>Does the standing wave ratio own something called "are better"?
> SNIPPED

3809. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 21:56:46 UTC
From: w8ji@akorn.net
Message-ID: <1149976606.648802.136670@j55g2000cwa.googlegroups.com>
Source record: 58101

Cecil Moore wrote:
> Quads are a lot less noisy than Yagis when the wind
> is blowing in the Arizona desert. Quads have a DC
> short across the feedpoint that reduces noise from
> static buildup.

Virtually all Yagi's have dc paths to discharge the elements.

The primary reason a quad is quiter is it has no sharp protruding ends
that are sticking way out in the air.

As a matter of fact if you research the quad, it was initially used to
eliminate corona at radio station HCJB.

Try this test, wire a small 2.5 MHh RF choke across your antenna and
check the before and after noise levels. They will not change.

73 Tom

3810. Re: Dumb question #433,444,007

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 23:50:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <KUIig.94792$H71.82841@newssvr13.news.prodigy.com>
Source record: 58102

Ken Bessler wrote:
> I did model this antenna with EZNEC but I forgot to take
> into account the fact that the wire used is insulated. I think
> that screwed up the resulting antenna. Maybe? Would an
> insulating jacket reduce the VF of the wire?

Yes, most of us have been bitten by that bug in our
thinking. Exactly the same thing happened to me with
"My Favorite Loop Antenna" on my web page. If I remember
correctly, the insulated effect is around 3% on VF.
--
73, Cecil http://www.qsl.net/w5dxp

3811. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-10 23:54:20 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <MYIig.94796$H71.43754@newssvr13.news.prodigy.com>
Source record: 58103
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Dave wrote:
> Methinks your leg was being pulled.
>
> The SWR with the apostrophe s is a grammatical error. The apostrophe s
> indicates that the SWR is possessive, that the SWR owns something; or,
> that the SWR is doing something. The apostrophe s is not plural!!

On the contrary, the plural of the letter A is A's. The plural
of the number 3 is 3's. It's not too much of a stretch to assume
that the plural of SWR is SWR's.

From Webster's: "apostrophe - a make used to indicate ... the
plural of letters or figures."
--
73, Cecil http://www.qsl.net/w5dxp

3812. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 00:08:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9aJig.94798$H71.24853@newssvr13.news.prodigy.com>
Source record: 58104

w8ji@akorn.net wrote:
> As a matter of fact if you research the quad, it was initially used to
> eliminate corona at radio station HCJB.

Yep, designed by my distant cousin, BTW.

> Try this test, wire a small 2.5 MHh RF choke across your antenna and
> check the before and after noise levels. They will not change.

Obviously a false statement based on limited knowledge and
experience. Any ham living around Phoenix will be glad to
enlighten you.

That's exactly how I eliminated the noise and arcing on my
first bare-wire G5RV installed in Arizona. I didn't measure
the change in noise level but it went from arcing at the coax
connector to not arcing at the coax connector which was
acceptable to me.

If the driven element on a Yagi is an uninsulated dipole, it
is susceptible to wind driven noise on the driven element just
like my G5RV was.

Just because you have never experienced that type of noise in
Georgia doesn't mean it doesn't exist in Arizona. I dare say
you haven't experienced a lot of things that exist in reality.
Mary G. comes to mind. :-)
--
73, Cecil http://www.qsl.net/w5dxp

3813. Re: Dumb question #433,444,007

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 00:58:00 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <sUJig.40283$4H.23879@dukeread03>
Source record: 58105

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:KUIig.94792$H71.82841@newssvr13.news.prodigy.com...
> Ken Bessler wrote:
> > I did model this antenna with EZNEC but I forgot to take
> > into account the fact that the wire used is insulated. I think
> > that screwed up the resulting antenna. Maybe? Would an
> > insulating jacket reduce the VF of the wire?
>
> Yes, most of us have been bitten by that bug in our
> thinking. Exactly the same thing happened to me with
> "My Favorite Loop Antenna" on my web page. If I remember
> correctly, the insulated effect is around 3% on VF.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Thanks for the info, Cecil - I just got back in the shack from trimming all 3 elements. The SWR is now pretty close to what EZNEC predicted. I can't tell if I've got any pattern on SSB because 6 is wide open and full of contesters. There is a beacon 80 miles away that I'm hearing and I'll try to see what kind of pattern I have receiving that.

Ken KG0WX

3814. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 02:21:11 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <448b7e17$0$6142$39cecf19@news.twtelecom.net>
Source record: 58106

W3JDR wrote:

> Dave,
>
> If you've never heard of 'pink' noise, then you're probably not a student of
> noise.
>
> In noise parlance, 'white' noise is the term that is usually used for
> non-bandlimited noise (ie, 'broadband noise'). "Pink' noise, on the other
> hand, is a term used to refer to bandlimited noise. In practice, anything
> that comes out of the audio channel of a communications receiver is really
> 'pink' noise, as the bandwidth is limited to a few KHz. On the other hand,
> the noise that is incident at the antenna or generated in the front-end is
> much broader in bandwidth and is more deserving of the term 'white' noise.
>
> Joe
> W3JDR
>

White noise is constant energy/Hz, pink is constant energy/octave.

tom
K0TAR

3815. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 02:41:57 UTC
From: w8ji@akorn.net
Message-ID: <1149993717.760844.168170@g10g2000cwb.googlegroups.com>
Source record: 58107

Cecil Moore wrote:
>> Try this test, wire a small 2.5 MHh RF choke across your antenna and
> > check the before and after noise levels. They will not change.
>
> Obviously a false statement based on limited knowledge and
> experience.

When did you do that test?

When did you compare other antennas, like noise on plummer's delight antennas?

How many Yagi's have floating driven elements without ground paths?

3816. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 03:06:19 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <448b88ac$0$76686$39cecf19@news.twtelecom.net>
Source record: 58108

w8ji@akorn.net wrote:

>
> How many Yagi's have floating driven elements without ground paths?
>

None on VHF/UHF/SHF that I build and anyone I know builds. Maybe on HF
it's different. I don't know why it should be, though.

Although normally all the other elements float on anything but 6 meters.

tom
K0TAR

3817. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 04:11:04 UTC
From: Richard Crowley <rcrowley@xpr7t.net>
Message-ID: <128n7597b11m190@corp.supernews.com>
Source record: 58109
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

```
"Cecil Moore" wrote ...
> Dave wrote:
>> Methinks your leg was being pulled.
>>
>> The SWR with the apostrophe s is a grammatical error. The apostrophe
>> s indicates that the SWR is possessive, that the SWR owns something;
>> or, that the SWR is doing something. The apostrophe s is not plural!!
>
> On the contrary, the plural of the letter A is A's. The plural
> of the number 3 is 3's. It's not too much of a stretch to assume
> that the plural of SWR is SWR's.
>
> From Webster's: "apostrophe - a make used to indicate ... the
> plural of letters or figures."

To take the argument well into absurdity (as if it
needed any help), we can discuss whether your
Webster's is descriptive or prescriptive.
```

3818. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 05:18:56 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <luudnVcyJeamNRbZRVnyhA@bt.com>
Source record: 58110

> See Google for the Gaussian Distribution or Function.
>
> It is simple enough : Exp(- x*x)).
>
> It occurs throughout Science, Engineering, Medicine, Economics,
> Statistics and in all facets of human activities, life on this
Planet
> and dead materials.
>
=====================================

Indeed, it is often referred to by statisticians as the "Normal" statistical distribution function. Why such a simple function should be so universal is a matter for conjecture.

Unfortunately, elementary statistics and tossing of dice is a much neglected subject in our schools. Japanese, Chinese, Korean, Russian, Indian, Central Asian, even Iraqian, Iranian and Palastinian school children are probably better educated.

The whole of human life is just a matter of chance. I consider myself to have been very lucky.

Please excuse my computerised wanderings!

Reg.

3819. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 06:05:40 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <448bb2b6$0$16012$892e7fe2@authen.yellow.readfreenews.net>
Source record: 58112
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

"Not Lloyd" <anon@anon.com> wrote in message
news:2d0u3.bcp.17.1@news.alt.net...

> Well, Webster shows more than one error, at least insofar as formal
English
> goes. What Webster depicts is the "dumbing down" of what our kids are
being
> taught today.
> Do what you wish, but those who are better educated will continue to use
the
> apostrophe to denote the possessive rather than the plural.
>
>

more importantly, you didn't post with proper bracketed attributions
(Cecil's comments in particular). so go somewhere else with your grammar
Nazi crap, or i'll start with my proper netiquette rantings.

Gravity

3820. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 06:57:47 UTC
From: Not Lloyd <anon@anon.com>
Message-ID: <2d0u3.bcp.17.1@news.alt.net>
Source record: 58111
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:MYIig.94796$H71.43754@newssvr13.news.prodigy.com...
Dave wrote:
> Methinks your leg was being pulled.
>
> The SWR with the apostrophe s is a grammatical error. The apostrophe s
> indicates that the SWR is possessive, that the SWR owns something; or,
> that the SWR is doing something. The apostrophe s is not plural!!

On the contrary, the plural of the letter A is A's. The plural
of the number 3 is 3's. It's not too much of a stretch to assume
that the plural of SWR is SWR's.

From Webster's: "apostrophe - a make used to indicate ... the
plural of letters or figures."
--
73, Cecil http://www.qsl.net/w5dxp

Well, Webster shows more than one error, at least insofar as formal English
goes. What Webster depicts is the "dumbing down" of what our kids are being
taught today.
Do what you wish, but those who are better educated will continue to use the
apostrophe to denote the possessive rather than the plural.

3821. Re: impedance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 07:08:55 UTC
From: Alan Peake <adpeake@killspam.internode.on.net>
Message-ID: <448BC187.2030906@killspam.internode.on.net>
Source record: 58113

K7ITM wrote:
> Ahem. In your formula, e is the relative dielectric constant of the
> dielectric between the planes and surrounding the wire, NOT the base of
> natural logarithms. And I assume that "p/h < 0,75" should be d/h <
> 0,75. Then it's equivalent to what I posted earlier.
>
> Cheers,
> Tom

Ooops! - I just knew I'd get it wrong somewhere:}
Yes, I meant to say d/h as that was the formula in "Reference Data for
Radio Engineers". Didn't see your post.
Must be the weather here - snowing!
Alan

3822. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 07:14:46 UTC
From: Billy Smith <colonelsmileyeoiawtopwat@yahoo.cojj>
Message-ID: <GpPig.4546$lp.616@newsread3.news.pas.earthlink.net>
Source record: 58114
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Slow Code wrote:
> patk1212@gmail.com wrote in
> news:1149534276.955122.310050@i40g2000cwc.googlegroups.com:
>
>
>>Alot of people are telling me that CB is just for inbred hicks and that
>>I should replace the CB in my truck with a ham radio. What do you
>>thjink?
>
>
>
>
> Which of your trucks were you thinking of updating? Your old rust bucket
> truck that still runs, or the one on blocks that you call your base
> station?
>
> sc

Nice predjudice against a guy without knowing him. Somehow did an optic
nerve get crossed with your asshole giving you a crappy view of life?

3823. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 07:36:40 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <qSCdYXCIg8iEFAOb@ifwtech.co.uk>
Source record: 58115

Tom Ring wrote:
>w8ji@akorn.net wrote:
>
>> How many Yagi's have floating driven elements without ground paths?
>>
>
>None on VHF/UHF/SHF that I build and anyone I know builds. Maybe on HF
>it's different. I don't know why it should be, though.
>
>Although normally all the other elements float on anything but 6 meters.

You're both over-generalizing. In VHF/UHF/SHF yagi construction it's quite common to find driven elements connected to the boom or floating. The same choice or a different choice may be made for the parasitic elements.

There are many different reasons for these choices, including:
* size of elements and boom
* mechanical strength requirements
* effect of boom on element resonance (depends on mounting method)
* long-term effect stability of element resonance
* feed impedance of driven element (affects choice of feed method)
* number of elements involved
* perceived or actual effects of "static".

This makes the choices quite complex, and makes generalization impossible. Quote an example, and someone else will quote you a counter-example.

Just one other thing: PLEASE let's not talk about elements being "grounded", way up there at the top of a tower.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3824. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 12:54:10 UTC
From: w8ji@akorn.net
Message-ID: <1150030449.970907.232220@c74g2000cwc.googlegroups.com>
Source record: 58116

Ian White GM3SEK wrote:

> This makes the choices quite complex, and makes generalization
> impossible. Quote an example, and someone else will quote you a
> counter-example.
>
> Just one other thing: PLEASE let's not talk about elements being
> "grounded", way up there at the top of a tower.

The entire topic and people's reactions about precepitation noise is fascinating.

People actually seem to think the little particles voving through the air charge the antenna to a different potential than the air around the antenna, and that a "dc" path to earth or "dc" path around an element somehow magically stops RF noise.

Certainly it is possible for a conductor very well insulated from earth to charge to the potential of the static field around the antenna, and flash over to "ground" through some path that breaks down. Of course only a fool would have equipment that allows that to happen while large antennas are being used or connected. This is an entirely different thing than the corona discharge that makes what people typically call "P-static".

73 Tom

3825. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 14:16:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <rBVig.44068$4L1.21856@newssvr11.news.prodigy.com>
Source record: 58117

w8ji@akorn.net wrote:
>>> Try this test, wire a small 2.5 MHh RF choke across your antenna and
>>> check the before and after noise levels. They will not change.

> Cecil Moore wrote:
>> Obviously a false statement based on limited knowledge and
>> experience.
>
> When did you do that test?

Around 1990 to cure the arcing at the coax connector
during clear-sky high-wind conditions in the Arizona
desert. When I got rid of the coax and used ladder-line
all the way to the tuner, I discovered that the 4:1 balun
in the MFJ tuner accomplished the same anti-arcing function
so hams using ordinary 4:1 voltage baluns are equalizing
that charge before it can arc.

> When did you compare other antennas, like noise on plummer's delight
> antennas?

The noise was the arcing of the coax connector at the input
to my IC-745 which woke me up at night and scorched my rug
after I disconnected it and laid it on the floor. Seems
obvious that going from arcing to not arcing changes the
noise level. I was afraid to turn the transceiver on during
the arcing process. If I had known I was ever going to have
this conversation with a doubting Thomas, I would have hung
an o'scope on it. The condition is well known to most desert
hams but I had just moved there from Silicon Valley. I never
experienced the condition in Silicon Valley or East Texas.

Installing the RF choke across the antenna feedpoint
cured the problem. I'm not talking about plumber's delight
antennas here. I am discussing Yagis and other antennas
whose driven elements are center-fed dipoles where there
is no DC path between the driven elements.

> How many Yagi's have floating driven elements without ground paths?

It only takes one red car to disprove the assertion
that all cars are white.

All the Yagis that I have built used isolated dipole
elements and it only takes one to demonstrate the clear-
sky high-wind noise problems in the Arizona desert. Every
Arizona desert ham running bare isolated HF elements with

no DC path to ground will encounter the problem sooner or later. The problem has been discussed here on this newsgroup in the past, possibly while you weren't reading it. As I remember, one ham solved the problem with a 10K 3 watt carbon resistor across the feedpoint.

It seems apparent to me that the problem occurs in very low humidity conditions. That would include dust and dry-air snow. And the dust doesn't have to be visible to the naked eye. I've seen it happen with clear-sky and seemingly clear-air conditions with high winds and low humidity. I suspect dust/pollen particles too small to see still carry a dry-air charge.
--
73, Cecil http://www.qsl.net/w5dxp

3826. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 14:30:23 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <3OVig.44070$4L1.20408@newssvr11.news.prodigy.com>
Source record: 58118
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Richard Crowley wrote:
> "Cecil Moore" wrote ...
>> From Webster's: "apostrophe - a make used to indicate ... the
>> plural of letters or figures."
>
> To take the argument well into absurdity (as if it
> needed any help), we can discuss whether your
> Webster's is descriptive or prescriptive.

That definition agrees with what I learned in English
class 50+ years ago. The plural of a number uses an
apostrophe. So 73's would indeed be the plural of 73
as in "many best regards". It's no stretch to assume
that the plural of SWR would be SWR's.

Incidentally, I have an obvious typo in the definition
that the spell-checker didn't catch. Should have been:

"apostrophe - a mark used to indicate ... the plural of
letters or figures."

I have a "Webster's New Universal Unabridged Dictionary"
which contains a "Basic Manual of Style" in the back.
Here's what it says for "Apostrophe: ... 3. To form the
plurals of letters or figures add an apostrophe and an s."
That's seems to be prescriptive.
--
73, Cecil http://www.qsl.net/w5dxp

3827. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 14:49:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <j4Wig.44072$4L1.36671@newssvr11.news.prodigy.com>
Source record: 58119
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Not Lloyd wrote:
> Do what you wish, but those who are better educated will continue to use the
> apostrophe to denote the possessive rather than the plural.

Would a "Basic Manual of Style" change your mind?

I have a "Webster's New Universal Unabridged Dictionary"
which contains a "Basic Manual of Style" in the back.
Here's what it says for "Apostrophe: 1. ... 2. ... 3. To
form the plurals of letters or figures add an apostrophe
and an s. ..."

It does say that a few people object to number 3. As in
many other areas of the English language, the context of
the use of the apostrophe determines its function:

1. to replace missing letters,
2. possessive,
3. plurals of letters or numbers.

P.S. The better educated posters avoid violating the
attribution rules for newsgroups.
--
73, Cecil http://www.qsl.net/w5dxp

3828. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 14:53:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <38Wig.44074$4L1.17246@newssvr11.news.prodigy.com>
Source record: 58120

Ian White GM3SEK wrote:
> This makes the choices quite complex, and makes generalization
> impossible. Quote an example, and someone else will quote you a
> counter-example.

Seems the assertion should be that precipitation noise
can exist on some antennas but not on others.

> Just one other thing: PLEASE let's not talk about elements being
> "grounded", way up there at the top of a tower.

How about "DC grounded"?
--
73, Cecil http://www.qsl.net/w5dxp

3829. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 15:20:34 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <5xWig.146019$F_3.21643@newssvr29.news.prodigy.net>
Source record: 58121

w8ji@akorn.net wrote:
> People actually seem to think the little particles voving through the
> air charge the antenna to a different potential than the air around the
> antenna, and that a "dc" path to earth or "dc" path around an element
> somehow magically stops RF noise.

Please don't accuse people of believing in magic until you
understand the physics involved.

There's no magic involved. Dry-air dust and snow particles
certainly can transfer a charge to an uninsulated wire in
the air. It is simple physics to realize that when a highly
charged particle touches a conductor, the charges between
the two objects will be equalized. It would be magic if the
particle and the wire did NOT equalize their charges by
transferring excess differential charge when they come
into contact.

Given a dipole where one element has a DC path to ground
and the other element is floating with respect to ground,
it is reasonable to expect the charge between the two
elements to be different and they often are. The difference
in charge will build up to the point where the smallest gap
between the two conductors arcs. In my configuration in
the Arizona desert, that gap existed at the coax connector
at the transceiver and it did indeed arc badly. It woke me
up and scorched my rug after I disconnected it from my
transceiver. The arc was bright enough to light up the
room and certainly caused RF noise. The wind was blowing
around 30 mph and there wasn't a cloud in the sky.

Given an extreme relative charge between the element with
a DC path to ground and the element without a DC path to
ground, anything that will bleed off that charge will cure
the problem. An RF choke works. A 4:1 voltage balun works.
A resistor works.

Perhaps we can convince a desert ham to hang an o'scope
on a clear-sky, dry-air system on a windy day and report
back here with some results. Many other hams have reported
the same thing during a dry-air snow storm.
--
73, Cecil http://www.qsl.net/w5dxp

3830. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 15:33:53 UTC
From: jawod <jawod@fuse.net>
Message-ID: <448C37E1.8060002@fuse.net>
Source record: 58122
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

```
Richard Crowley wrote:
> "Cecil Moore" wrote ...
>
>> Dave wrote:
>>
>>> Methinks your leg was being pulled.
>>>
>>> The SWR with the apostrophe s is a grammatical error. The apostrophe
>>> s indicates that the SWR is possessive, that the SWR owns something;
>>> or, that the SWR is doing something. The apostrophe s is not plural!!
>>
>>
>> On the contrary, the plural of the letter A is A's. The plural
>> of the number 3 is 3's. It's not too much of a stretch to assume
>> that the plural of SWR is SWR's.
>>
>> From Webster's: "apostrophe - a make used to indicate ... the
>> plural of letters or figures."
>
>
> To take the argument well into absurdity (as if it
> needed any help), we can discuss whether your
> Webster's is descriptive or prescriptive.
good one
If I can ever help in increasing the absurdity of these newsgroups, I am
glad to do so.

BTW, all dictionaries are descriptive.
```

3831. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 15:59:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <U5Xig.146034$F_3.61617@newssvr29.news.prodigy.net>
Source record: 58123

w8ji@akorn.net wrote:
> People actually seem to think the little particles voving through the
> air charge the antenna to a different potential than the air around the
> antenna, and that a "dc" path to earth or "dc" path around an element
> somehow magically stops RF noise.

Let's say we have the following bare-wire dipole system
link coupled to the receiver (in fixed font).

```
|
| dipole element A link coupled
| -////-
+-------------------------------------------------///////--+
|
+-----------------------------------------------------------+
|
| dipole element B
|
```

Let's assume one highly charged particle hits dipole element
A and transfers half of its charge. Element A will then have
an excess charge one half of which will migrate through the
link while equalizing the charge between element A and element
B. That charge migration/equalization no doubt results in an
RF noise pulse.

This experiment can easily be performed by anyone.
Rub one's leather soles on a wool carpet, touch one side of
the dipole, and listen for noise in the receiver. Guaranteed,
it will be there.

Now multiply the above by millions of charged particles
randomly encountering the bare-wire dipole. The charge on
each side of the dipole will never be exactly equal. Thus,
continuous broad-band noise will be continuously transferred
through the link as long as the particles are transferring
charge to the antenna. That's what some hams are hearing
during dry-air dust and snow conditions. Some have even reported
being able to hear individual particle collisions from large
snowflakes.
--
73, Cecil http://www.qsl.net/w5dxp

3832. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 16:01:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <p7Xig.146035$F_3.39924@newssvr29.news.prodigy.net>
Source record: 58124
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

jawod wrote:
> BTW, all dictionaries are descriptive.

But all Basic Manuals of Style are prescriptive.
Please see my other posting.
--
73, Cecil http://www.qsl.net/w5dxp

3833. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 16:30:43 UTC
From: "kb9rqz@hotmail.com" <kb9rqz@hotmail.com>
Message-ID: <1150043443.611544.327330@j55g2000cwa.googlegroups.com>
Source record: 58125
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

clfe wrote:
> "Tom Ring" <news0002@taring.org> wrote in message
> news:4488ecea$0$6141$39cecf19@news.twtelecom.net...
> > clfe wrote:

> > And at least we admit who we are. You, on the other hand, are hiding. You
> > are likely just a frigging troll that isn't even licensed.
> >
> > tom
> > K0TAR
> >
> >
>
> I don't sign with my call. Some like to - that is their choice. But even if
> they didn't - wouldn't give me any reason to doubt them being licensed.
> "Posting" a call sign doesn't prove a thing. "I" for one - am NOT going to
> go running to the FCC database to check your call or any other to see if it
> is legit. I don't care........

OTOH there are those that do indeed run the database everytie they see
a call Robeson (k4yz) is one and a real ass about ti too

3834. Re: highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 16:32:01 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <448c4583$0$15725$892e7fe2@authen.yellow.readfreenews.net>
Source record: 58026

"spears" <ester@talk21.com> wrote in message
news:44714748_1@news.iprimus.com.au...
> I was wondering what is the highest gain hf antenna thats operational
> anywhere in the world? Secondly what is the gain.
>
> Peter

as others have noted: Arecibo, HAARP, SW curtain arrays.

for 20 meters, there have been 48 element Yagi stacks.

i'm not aware of any amateur curtain arrays, but several people have modeled these before. you need tall towers, obviously. see the cebik site if you are interested in how curtains work.

it would be pretty easy to set a record for ham HF gain using Yagis, rhombics, or curtain array. whether you'd get good performance and a useable beamwidth is another matter.

Gravity

3835. Re: highest gain hf antenna in the world

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 16:34:11 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <448c4605$0$16435$892e7fe2@authen.yellow.readfreenews.net>
Source record: 58027

"spears" <ester@talk21.com> wrote in message
news:44714748_1@news.iprimus.com.au...
> I was wondering what is the highest gain hf antenna thats operational
> anywhere in the world? Secondly what is the gain.
>
> Peter

we have a 3500 foot property line here. i should look into V beams.

Gravity

3836. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 16:35:31 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <Y_OdnUi9xcVd2xHZnZ2dnUVZ_rCdnZ2d@comcast.com>
Source record: 58028

Thank you all for your replys, they were all interesting.

The first set of test measurements were taken on a 2-meter loaded vertical. Two voltage readings were taken via a high impedance scope probe, one at the feedpoint of the coax center connection, and the other from the connection of the coax shield to the antenna ground. In this case the ground is a simple raised metal 1/4 inch screen mesh about 10 square feet.

The antenna was tuned to resonance. The relative voltage readings were the center conductor was 2x the ground reading. I do not have a way to measure current at the base at this time.

However looking ahead, with power = iv would this imply about 2 times the energy is being radiated from the vertical element as through the base?

Thanks Dan - kb0qil

dansawyeror wrote:
> Good morning,
>
> This question is: Taking measurements at the antenna and what they mean?
>
> The antenna is a loaded vertical over a set of untuned radials. The feed
> is 50 Ohm coax with a 1:1 isolation transformer at the antenna. I intend
> to run a separate coax for measurement purposes to the feed point,
> stimulate the antenna with a 10 mw signal at the operating frequency,
> and measure the voltage across the antenna feed and the ground connection.
>
> Will the voltages indicate the relative RF impedance of antenna
> (including loading coil) versus the ground? If the ground were near
> perfect the voltage at the feedpoint should be close to zero. These
> voltages should indicate the power disapation difference between the
> antenna and the ground.
>
> Thanks,
> Dan
>

3837. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 16:52:41 UTC
From: Ian White GM3SEK <gm3sek@ifwtech.co.uk>
Message-ID: <X4XyCGJZpEjEFAjS@ifwtech.co.uk>
Source record: 58029

Cecil Moore wrote:
>Ian White GM3SEK wrote:
>> This makes the choices quite complex, and makes generalization
>>impossible. Quote an example, and someone else will quote you a
>>counter-example.
>
>Seems the assertion should be that precipitation noise
>can exist on some antennas but not on others.
>
Living in this climate, I don't have any particular view or experience about static noise (but ironically we're just about to get one of our few thunderstorms of the year... better go and do something about that).

>> Just one other thing: PLEASE let's not talk about elements being
>>"grounded", way up there at the top of a tower.
>
>How about "DC grounded"?

By all means; so long as we never forget to include the "DC" part.

--
73 from Ian GM3SEK 'In Practice' columnist for RadCom (RSGB)
http://www.ifwtech.co.uk/g3sek

3838. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 17:02:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l2io82t4ie56uh2s3tvha8dunvk8p04ujc@4ax.com>
Source record: 58030

On Sun, 11 Jun 2006 09:35:31 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>The first set of test measurements were taken on a 2-meter loaded vertical.

What frequency?

>Two
>voltage readings were taken via a high impedance scope probe,

This sounds like a set up to imagining better results than can be
obtained. Scope probes are not magic detectors and what you describe,
following, sounds like wishing:

>one at the
>feedpoint of the coax center connection, and the other from the connection of
>the coax shield to the antenna ground.

A Scope probe has two (2) connections, and at any frequency in HF and
above, their separation is going to have a significant impact on
measurement. You never say just where the second lead goes for each
voltage reading. If you made NO second connection (and just left that
at up to the far end of the probe's connection to a mystery box) then
you have definitely confirmed that dream is in Technicolor and
surround-sound.

>In this case the ground is a simple
>raised metal 1/4 inch screen mesh about 10 square feet.

This is rather less than fully descriptive as 10 square feet can take
many forms.

>The antenna was tuned to resonance. The relative voltage readings were the
>center conductor was 2x the ground reading. I do not have a way to measure
>current at the base at this time.

And this raises one particularly pointed question:
Ground was at what potential with respect to ground?

>However looking ahead, with power = iv would this imply about 2 times the energy
>is being radiated from the vertical element as through the base?

Hi Dan,

There is far too much ambiguity in what you post. What is posted is
fraught with conceptual problems. Basically, you've managed to obtain
two voltages whose relationship is meaningless at best. I'm sure the
potentials exist, but they define a circuit that has no practical

application (and that circuit is NOT the antenna NOR its ground screen).

In short, just what do you think you are achieving (another ambiguity)?

73's
Richard Clark, KB7QHC

3839. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 17:49:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <b7lo82tgb72p35hc9hm5qnn4invmfqegdt@4ax.com>
Source record: 58031

On Thu, 08 Jun 2006 07:03:05 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:
>This question is: Taking measurements at the antenna and what they mean?

Hi Dan,

Taking up your postings in reverse order, I can see one problem and
that is emblematic in the question above. Basically it defines a
solution in search of a question. The problem is to figure out what
question you answered by taking the measurements.

This is not an auspicious beginning.

>The antenna is a loaded vertical over a set of untuned radials. The feed is 50
>Ohm coax with a 1:1 isolation transformer at the antenna.

>I intend to run a separate coax for measurement purposes to the feed point,

This single statement introduces too much complexity for your stated
goal of taking measurements. There are rather more conventional ways
to accomplish this.

>stimulate the antenna
>with a 10 mw signal at the operating frequency, and measure the voltage across
>the antenna feed and the ground connection.

"And ground connection?" If your isolation transformer is working,
there is no need to - unless, of course, you are simply interested in
knowing this fact, or are going to put it to some particular purpose.
However, you are approaching this with no stated purpose, so this
ambiguity is simply accelerating your Drift velocity.

>Will the voltages indicate the relative RF impedance of antenna (including
>loading coil) versus the ground?

If you are treating the untuned radials in relation to ground, you
really need to describe ground. It is not so easily achived as
driving a nail into the mud and declaring that's your reference.

>If the ground were near perfect the voltage at
>the feedpoint should be close to zero.

"If" comes with magnitudes of error that can only be imagined. From
this point on, you can make your measurements and be guaranteed they
can fit any purpose - "If" you ignore the error.

>These voltages should indicate the power
>disapation difference between the antenna and the ground.

They will simply represent the potentials distributed throughout an imaginary land mine field. Tap dance with care or you may have to sign off as Stumpy.

73's
Richard Clark, KB7QHC

3840. is this any good Ast6btv mobile ant

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 19:18:51 UTC
From: DAVID BROWNE <david.browne5@btinternet.com>
Message-ID: <v0_ig.32904$uP.1010@newsfe2-gui.ntli.net>
Source record: 58032

hi is any one useing this ant and what do you think of it

3841. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 20:29:17 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <x2%ig.40098$S61.39689@edtnps90>
Source record: 58033

> Hi Dan,
>
> Taking up your postings in reverse order, I can see one problem and
> that is emblematic in the question above. Basically it defines a
> solution in search of a question. The problem is to figure out what
> question you answered by taking the measurements.
>
> This is not an auspicious beginning.
>
>>The antenna is a loaded vertical over a set of untuned radials. The feed
>>is 50
>>Ohm coax with a 1:1 isolation transformer at the antenna.
>
>>I intend to run a separate coax for measurement purposes to the feed
>>point,
>
> This single statement introduces too much complexity for your stated
> goal of taking measurements. There are rather more conventional ways
> to accomplish this.
>
>>stimulate the antenna
>>with a 10 mw signal at the operating frequency, and measure the voltage
>>across
>>the antenna feed and the ground connection.
>
> "And ground connection?" If your isolation transformer is working,
> there is no need to - unless, of course, you are simply interested in
> knowing this fact, or are going to put it to some particular purpose.
> However, you are approaching this with no stated purpose, so this
> ambiguity is simply accelerating your Drift velocity.
>
>>Will the voltages indicate the relative RF impedance of antenna (including
>>loading coil) versus the ground?
>
> If you are treating the untuned radials in relation to ground, you
> really need to describe ground. It is not so easily achived as
> driving a nail into the mud and declaring that's your reference.
>
>>If the ground were near perfect the voltage at
>>the feedpoint should be close to zero.
>
> "If" comes with magnitudes of error that can only be imagined. From
> this point on, you can make your measurements and be guaranteed they
> can fit any purpose - "If" you ignore the error.

>
>>These voltages should indicate the power
>>disapation difference between the antenna and the ground.
>
> They will simply represent the potentials distributed throughout an
> imaginary land mine field. Tap dance with care or you may have to
> sign off as Stumpy.
>
> 73's
> Richard Clark, KB7QHC

Dan, The only way you will get a valid measurement is with your 1:1 transformer, coax, and your vector voltmeter. I guess if you are having problems with the vector voltmeter you can do the same, with less accuracy, using a dual channel scope, and directional coupler.

73,

Frank

3842. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 20:36:21 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <448c7ec6$0$6142$39cecf19@news.twtelecom.net>
Source record: 58034

Ian White GM3SEK wrote:

> Tom Ring wrote:
>
>> w8ji@akorn.net wrote:
>>
>>> How many Yagi's have floating driven elements without ground paths?
>>>
>>
>> None on VHF/UHF/SHF that I build and anyone I know builds. Maybe on
>> HF it's different. I don't know why it should be, though.
>>
>> Although normally all the other elements float on anything but 6 meters.
>
>
> You're both over-generalizing. In VHF/UHF/SHF yagi construction it's
> quite common to find driven elements connected to the boom or floating.
> The same choice or a different choice may be made for the parasitic
> elements.
>
> There are many different reasons for these choices, including:
> * size of elements and boom
> * mechanical strength requirements
> * effect of boom on element resonance (depends on mounting method)
> * long-term effect stability of element resonance
> * feed impedance of driven element (affects choice of feed method)
> * number of elements involved
> * perceived or actual effects of "static".
>
> This makes the choices quite complex, and makes generalization
> impossible. Quote an example, and someone else will quote you a
> counter-example.
>
> Just one other thing: PLEASE let's not talk about elements being
> "grounded", way up there at the top of a tower.
>
>
>

Maybe I should have defined what I meant when I said floating. I think
we have been talking about a DC grounded element, and that's what I
meant with respect to floating.

Virtually all of the homebrew yagis that I have seen, and most of the
commercial are gamma match, or T match. The gamma is not going to carry

the ground through, but is used almost exclusively on 6 meters where driven elements are rarely insulated from the boom. 2 through 432 are T matches and that DC grounds the driven element regardless of how it's mounted. Going up we see mostly loop yagis, and I've never seen one of those that's not grounded. I know there are regular (non-loop) yagis used 902 and up, but I never seen one to see how they are driven.

So, for me anyway, the generalization works.

And I'm just watching Silverstone, Ian, so don't tell me how it went!

tom
K0TAR

3843. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 20:40:22 UTC
From: w8ji@akorn.net
Message-ID: <1150058422.282361.78200@h76g2000cwa.googlegroups.com>
Source record: 58035

I don't have a lifetime to spend picking nits with Cecil, but I do resent his immediate implications I haven't looked at the closely for a long time.

If anyone goes to places where people have multiple antennas, you'll find the overwhelming observations are that DC grounding doesn't make a bit of difference outside of one single exception. That exception is when a physically realitively large antenna that is exceptionlly well insulated is allowed to build up a charge, in which case when it breaks down a dielectric someplace the arc causes noise.

I've been through this stuff hundreds of times with antenna on tall towers and tall buildings, and found that changing from traditionl elements to closed DC path elements doesn't make a noticable difference except in the case where the element is large enough and has low enough leakage that it can change to the point of breaking down a dielectric.

In my experience the vast majority of noise people complain about is caused by corona from the element or something in the immediate area of the element.

There is no point repeating the same examples 50 times, people who are curious and have the resources will see that higher antennas, even when hit by the same particles, are always worse than lower antennas and that plumber's delight Yagi antennas are every bit as haunted by P-static as dipole-element Yagi antennas (as rare as they are).

My shunt fed towers were just as useless as floating towers, and my floating arrays of verticals in largte receiving arrays with no real DC path at all are every bit as quiet as beverages which have DC paths. As a matter of fact it makes no difference at all if series caps are added at the ends of Beverages.

Now I'm sure there will be some cases where people disagree with this, but anyone who can A-B-C test antennas will find that other than a pop or arc across a dielectric from antennas that accumulate enough charge to exceed charge leakage the only thing that really matters is how "pointed" the antenna is and how exposed the points are to the air around the antenna.

All that crud hitting the antenna isn't significantly different in potential than the air around the element, it just has a lower impedance. It's a better current source, but the particles themselves hitting the antenna don't make the noise.

As a matter of fact, it is rather silly to claim the particles discharging make noise and then at the same time claim that a DC path

somehow reduces or eliminates that noise. The CLOSER the antenna would be allowed to float to the potential of the particles the LESS change in potential would occur. Pulling the element to earth would make each tiny discharge worse and make more noise, not less.

As a matter of fact that's another reason why a quad array in inclement weather has less P-static noise than a Yagi. The parasitic elements being well insulated CAN float more towards the potential of the air around the quad. The quad has a few things going for it the Yagi never has. It does not have sharp protruding ends out into space that encourage corona, and as a general rule has parasitic elements that are very well insulated from ground.

Not much makes sense when we think for a while about the alternative theory that is all about a closed DC path to earth, especially since the vast majority of Yagis have the same path yet are worse at P-static when at the same height.

73 Tom

3844. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 21:27:33 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <m01p82hrt28b4irq3m7c7qbcg3p6gi4c42@4ax.com>
Source record: 58036

On Sun, 11 Jun 2006 20:29:17 GMT, "Frank's"
<frank599@nospam.telus.net> wrote:

>> They will simply represent the potentials distributed throughout an
>> imaginary land mine field. Tap dance with care or you may have to
>> sign off as Stumpy.
>>
>> 73's
>> Richard Clark, KB7QHC
>
>Dan, The only way you will get a valid measurement is with your
>1:1 transformer, coax, and your vector voltmeter. I guess if you
>are having problems with the vector voltmeter you can do the
>same, with less accuracy, using a dual channel scope, and
>directional coupler.
>
>73,
>
>Frank

Hi Frank,

Thanx for filling in one of the gaps, what I called the mystery box.
I'd forgotten Dan had been posting about his use of a vector
voltmeter.

Dan, this is one of your habitual problems of describing the problem
at hand. You are making presumptions that all your correspondence
before you has been held in suspension to consider every posting you
make ever after. Always fully describe what you are doing, and why
you are doing it.

However, the matter of making the measurement is still problematic.
Scope probes have spring-like clips used to secure them to the point
or wire they are measuring. These are properly called "hoods" and in
most cases are removed if you are going to probe a circuit board
trace. That probe end is coaxially surrounded by a ground ring, and
scope probes often came with an accessory kit that would have a
special adapter that fit on this and extended a barb like a bayonet.
This barb was an extension of that ground ring to find the ground
point for the circuit board measurement (it presumed a ground trace
was within a quarter inch or so of the measurement point).

Barring this fine touch, that same accessory kit would come with two
alligator leaded wires with snap attachments that would fit around the
probe/cable attachment to exposed ground of the coaxial cable.

Depending upon how high the frequency, or how fast the rise time of the measurement, you could use the longer, or would be forced to use the shorter lead. If you were out for accuracy, you used the barb already mentioned.

This, of course, reveals the necessity of both grounding for reference, AND making it a short path so as to not make your probe part of the circuit. It hardly matters if you use a 10:1 or 100:1 probe, because if you don't use these short leads or the barb, your 2 meter antenna has probably just doubled its length in a very unpredictable manner.

73's
Richard Clark, KB7QHC

3845. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 22:50:24 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Q61jg.23482$VE1.17475@newssvr14.news.prodigy.com>
Source record: 58037

w8ji@akorn.net wrote:
> I don't have a lifetime to spend picking nits with Cecil, but I do
> resent his immediate implications I haven't looked at the closely for a
> long time.

Do you think the people who report the problems that you haven't
experienced and don't understand resent your assertion that they
believe in magic? The actual magical thinking is asserting that
charged particles don't transfer part of their charge to bare
wire antennas.

> In my experience the vast majority of noise people complain about is
> caused by corona from the element or something in the immediate area of
> the element.

That may be true but we are not discussing corona noise. Exactly
where do I go wrong in the following explanation?

1. A highly charged particle encountering one element of a bare
copper wire dipole will transfer approximately half its charge
to the wire.

2. A charge unbalance between the two elements of a dipole will
cause a differential current to flow in a link coupled system.

3. The differential current may be detected by an RF receiver.

> Now I'm sure there will be some cases where people disagree with this,
> but anyone who can A-B-C test antennas will find that other than a pop
> or arc across a dielectric from antennas that accumulate enough charge
> to exceed charge leakage the only thing that really matters is how
> "pointed" the antenna is and how exposed the points are to the air
> around the antenna.

This is simply a false statement. Many desert hams, like
myself in the 1990's, have experienced another kind of noise.
I've never experienced it from snow, but I can understand
how it could happen with snow falling through dry air. The
snow phenomenon has been reported here on this newsgroup.

> All that crud hitting the antenna isn't significantly different in
> potential than the air around the element, it just has a lower
> impedance.

Absolutely false! Charged dust particles are a fact of life
in the Arizona desert. There is often not enough moisture in
the air to discharge them. Your limited experience is showing.

How often does the relative humidity get down to 10% with
high winds and dust in Georgia?

> As a matter of fact, it is rather silly to claim the particles
> discharging make noise and then at the same time claim that a DC path
> somehow reduces or eliminates that noise.

I didn't claim it "reduces or eliminates that noise". I claimed
it eliminates arcing which is certainly a type of noise.

> The CLOSER the antenna would
> be allowed to float to the potential of the particles the LESS change
> in potential would occur. Pulling the element to earth would make each
> tiny discharge worse and make more noise, not less.

My problem was that 1/2 of the antenna was at DC ground potential
and the other half was floating which is typical of a store-bought
G5RV. That seems to cause the worst case of arcing. But it is simple
physics to realize that each particle acts independently. The charge
transfer from each particle causes a tiny differential current between
the two elements of the antenna. Millions of unsynchronized collisions
per second certainly would produce differential RF noise.

A link-coupled balanced dipole system would probably never arc but
there would be a differential noise pulse through the receiver as
described in the graphic in my other posting.
--
73, Cecil http://www.qsl.net/w5dxp

3846. Wide bandwidth ladder line J-pole for 6-Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-11 23:36:36 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <5ZWdnbe8ZP27NBHZnZ2dnUVZ_vudnZ2d@comcast.com>
Source record: 58038

I've been working on a ladder line J-Pole design for 6m, but have had very little luck until today. The problem has been critical tuning and narrow SWR bandwidth. The improvement came today when I implemented an idea I had concerning the severed piece of wire that "just goes along for the ride" in the ladder line after cutting the 1/4" gap for the 1/4-wave shorted stub. I figured that many successful 50 MHz J-Poles are made from copper tubing because the thicker elements give it good bandwidth. My idea was to make use of the extra wire and connect it at top and at the gap to the radiator side, making the half-wave radiator act as a much thicker element. My 2:1 bandwidth went from 300 KHz to 2 MHz.

The resulting antenna design is very straightforward, using the Velocity Factor of 0.91 for the 1/4-wave stub and 0.95 for the radiator. This essentially sets the radiator length equal to the standard 468/F dipole length. If you analyze the operation of the very successful "Open Stub J-Pole" that Arrow makes, you will find they use the 0.95 FV for both the radiator and the stub, which is appropriate in their open design. So that pointed me in that direction as far as cutting lengths are concerned. The only remaining question was the location of the feed tap for 50-ohm cable. I used alligator clips on the coax to find the best position, and that turned out to be 4 3/8" up from the shorted bottom end, with the shield going to the gap side. My rig sees a 1:1 SWR from 50.0 to 51.2 MHz, and it gets to 1.6:1 at 52.1 MHz. With this information, it should be easy to design one that takes full advantage of the antenna's bandwidth to provide operation over the widest segment of the 6M band.

My intuition told me that there should be some advantage to using 450-ohm ladder line compared to 300-ohm twinlead. Maybe this extra bandwidth is it.

73,

Chuck, W6PKP

3847. Cellwave/Phelps Dodge antennas FS/or trade

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 00:06:55 UTC
From: Will <echocomms@hotmail.com>
Message-ID: <1150070815.577510.202540@f6g2000cwb.googlegroups.com>
Source record: 58039

Available in So. California/ Los Angeles aera:

Station Master 458-3 8db, 470-480/mounting hdwr used in good shape
Station Master PD220 5.25db 152 -155 mhz, new/mtg hardware
Station Master PD220 5.25db 153 mhz in good condition.

Make offers or trades, thanks

3848. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 00:32:29 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <ioSdnS-Z1smBKxHZnZ2dnUVZ_sydnZ2d@adelphia.com>
Source record: 58040

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> J. Mc Laughlin wrote:
>>
>>> P-noise is observed when there is no rain nor thunderstorms, but plenty
>>> of wind. This is suggestive of moving charge discharging into the
>>> antenna.
>>
>>
>> So how does it get there? How does it build up? Where is the spark arc
>> or sizzle?
>
>
> This is a well known phenomenon in Arizona. What else, besides
> charged dust particles, could cause arcing at coax connectors
> on a perfectly clear windy day?

A large scale demo of this effect can be seen during volcanic
eruptions, when large amounts of dust are thrown into the atmosphere at
high speeds. Lightning happens.

http://www.guardian.co.uk/life/feature/story/0,13026,1368962,00.html

It is not certainty, but particles rubbing against each other do a
pretty good job of building up static.

- 73 de Mike KB3EIA -

3849. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 00:40:28 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <AbqdnfZu6_9jKhHZnZ2dnUVZ_qudnZ2d@adelphia.com>
Source record: 58041
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Cecil Moore wrote:
> jawod wrote:
>
>> BTW, all dictionaries are descriptive.
>
>
> But all Basic Manuals of Style are prescriptive.
> Please see my other posting.

Use of the apostrophe as a plural designation is rapidly becoming
passe'. IIRC it already is in the UK.

Possessive is the new standard.

I get my chops busted if I write with say last year's work instead of
last years work.

- 73 de Mike KB3EIA -

3850. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 00:53:00 UTC
From: dansawyeror <dansawyeror@comcast.net>
Message-ID: <VuCdnQ4c0fXHJhHZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 58042

All,

There have been replies with some good comments and recommendations for not taking meaningless measurements.

First, the objective: Modeling software predicts a loaded vertical with a 'good' ground will have a low input impedance. This is a step on the trail to measure that impedance.

Second, a vector voltmeter, when feed by directional couplers can be used to measure impedance angle and therefore resonance. It can also be use to measure the forward and re-flected power.

The setup is a calibrated signal generator, connected to a 7904 scope (A plug in) for reference purposes only, connected to a pair of couplers connected to the vector voltmeter, connected to test antenna. The frequency is 147 MHz. The system is near resonance. The voltage measurements are taken with a pair of 10x probes, connected to a dual channel plug in (B plug in).

There is no significant change to the signal or the vector voltmeter readings when the probe leads are attached. The phase changes by less the 10 degrees and none of the amplitudes change noticeably. I do not believe the measurement system is materially influencing the measurements.

The next step is to make a current probe to attach to the base of the antenna. The result is the two 'independent' systems, the couplers and the vector voltmeter, and the voltage and current probe, should yield similar antenna impedances.

- Dan

dansawyeror wrote:
> Thank you all for your replys, they were all interesting.
>
> The first set of test measurements were taken on a 2-meter loaded
> vertical. Two voltage readings were taken via a high impedance scope
> probe, one at the feedpoint of the coax center connection, and the other
> from the connection of the coax shield to the antenna ground. In this
> case the ground is a simple raised metal 1/4 inch screen mesh about 10
> square feet.
>
> The antenna was tuned to resonance. The relative voltage readings were
> the center conductor was 2x the ground reading. I do not have a way to
> measure current at the base at this time.
>
> However looking ahead, with power = iv would this imply about 2 times
> the energy is being radiated from the vertical element as through the base?

>
> Thanks Dan - kb0qil
>
> dansawyeror wrote:
>
>> Good morning,
>>
>> This question is: Taking measurements at the antenna and what they mean?
>>
>> The antenna is a loaded vertical over a set of untuned radials. The
>> feed is 50 Ohm coax with a 1:1 isolation transformer at the antenna. I
>> intend to run a separate coax for measurement purposes to the feed
>> point, stimulate the antenna with a 10 mw signal at the operating
>> frequency, and measure the voltage across the antenna feed and the
>> ground connection.
>>
>> Will the voltages indicate the relative RF impedance of antenna
>> (including loading coil) versus the ground? If the ground were near
>> perfect the voltage at the feedpoint should be close to zero. These
>> voltages should indicate the power disapation difference between the
>> antenna and the ground.
>>
>> Thanks,
>> Dan
>>

3851. Re: Wide bandwidth ladder line J-pole for 6-Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 01:19:52 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <9PidnS2DnMXTXBHZnZ2dnUVZ_s-dnZ2d@comcast.com>
Source record: 58043

"Chuck Olson" <chuckolson01@REMOVETHIScomcast.net> wrote in message
news:5ZWdnbe8ZP27NBHZnZ2dnUVZ_vudnZ2d@comcast.com...
> I've been working on a ladder line J-Pole design for 6m, but have had very
> little luck until today. The problem has been critical tuning and narrow
SWR
> bandwidth. The improvement came today when I implemented an idea I had
> concerning the severed piece of wire that "just goes along for the ride"
in
> the ladder line after cutting the 1/4" gap for the 1/4-wave shorted stub.
I
> figured that many successful 50 MHz J-Poles are made from copper tubing
> because the thicker elements give it good bandwidth. My idea was to make
use
> of the extra wire and connect it at top and at the gap to the radiator
side,
> making the half-wave radiator act as a much thicker element. My 2:1
> bandwidth went from 300 KHz to 2 MHz.
>
> The resulting antenna design is very straightforward, using the Velocity
> Factor of 0.91 for the 1/4-wave stub and 0.95 for the radiator. This
> essentially sets the radiator length equal to the standard 468/F dipole
> length. If you analyze the operation of the very successful "Open Stub
> J-Pole" that Arrow makes, you will find they use the 0.95 FV for both the
> radiator and the stub, which is appropriate in their open design. So that
> pointed me in that direction as far as cutting lengths are concerned. The
> only remaining question was the location of the feed tap for 50-ohm cable.
I
> used alligator clips on the coax to find the best position, and that
turned
> out to be 4 3/8" up from the shorted bottom end, with the shield going to
> the gap side. My rig sees a 1:1 SWR from 50.0 to 51.2 MHz, and it gets to
> 1.6:1 at 52.1 MHz. With this information, it should be easy to design one
> that takes full advantage of the antenna's bandwidth to provide operation
> over the widest segment of the 6M band.
>
> My intuition told me that there should be some advantage to using 450-ohm
> ladder line compared to 300-ohm twinlead. Maybe this extra bandwidth is
it.
>
> 73,
>
> Chuck, W6PKP
>
>

It looks like I left out the design frequency that resulted in the 2:1 SWR bandwidth from 49.54 to 51.53 MHz, and that was 51.13 MHz. It looks like there's an offset of +600 KHz between the frequency used to determine cutting length and the actual center of SWR bandwidth. But once that's known, the design can be calculated for precise frequency coverage.

Maybe we should call it a "Fat-Wire J-pole" - - feel free to offer alternatives - -

73,

Chuck, W6PKP

3852. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 01:20:39 UTC
From: jawod <jawod@fuse.net>
Message-ID: <448CC167.7010009@fuse.net>
Source record: 58044

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>Your argument makes perfect sense. Cecil, I was suprised that you actually had arcing to the point of scorched carpet. What voltage do you think this potential represents? Is this a relatively constant voltage. By that, I mean is there usually SOME voltage difference during days or weeks? My naieve question is: Could this serve as a trickle charge for a battery when not used for RX/TX?

3853. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 01:33:51 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <06WdndDEvojgWRHZnZ2dnUVZ_o-dnZ2d@adelphia.com>
Source record: 58045

Bruce in Alaska wrote:
> In article <u-idncZXl5yLXhXZnZ2dnUVZ_qmdnZ2d@adelphia.com>,
> Mike Coslo <mremovethiscoslo@adelphia.net> wrote:
>
>
>>Well, I could be wrong, but if one side of the capacitor is on the
>>inside of the hull, and the other side is the sea water, is not the
>>motion of the ship going to affect that? ships move up and down quite a
>>bit, and low draft ones can have a *lot* of that hull out of the water,
>>and then a few seconds later have water coming over the bow.
>
>
>
> We are not talking about 16 foot dingys here, we are talking about
> vessels mostly over 30 feet in length, and usually with over 3 or 4 feet
> of draft.

I'm not so sure the exact size ship we speak of. But if you recall back
a long time ago when the original poster spoke of a hypothetical wire
not working at 4 feet underwater. I even suspect that a 30 foot vessel
might take greater than a 4 foot excursion, especially in your neck of
the woods!

> Just how much coupling to the seawater you have is a function
> of area of the inside capacitive plate, and the distance between it and
> the seawater. If the dielectric distance is a few inches, and the inside
> plate is below the waterline, then coupling will not change apperciably,
> just because the water is sloshing around a bit on the hull. Even if
> a bit of the surface area of the inside plate did come above the
> waterline for a little while, say on a hard tack in a sail rig, the
> coupling still wouldn't be appreciably reduced by loosing 5% of the
> surface area. These are not really valid problems that one sees, when
> operating MF/HF Marine Radios that have a decent, Low Impedance RF
> Ground System installed in the first place. doing it right the first
> time solves a lot of ills down the road, and skimping on the RF Ground,
> is a presciption for disaster.

I don't doubt that the problem has been solved (if it exists in the
first place).

- 73 de Mike KB3EIA -

3854. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 01:35:07 UTC
From: jawod <jawod@fuse.net>
Message-ID: <448CC4CB.2040308@fuse.net>
Source record: 58046
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

```
>
> Possessive is the new standard.
>
> I get my chops busted if I write with say last year's work instead
> of last years work.
>
> - 73 de Mike KB3EIA -
>
>

I don't understand. Possessive is the new standard? Your chops get
busted whey you write "last year's work"?
That IS possessive.
```

3855. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 01:49:47 UTC
From: w8ji@akorn.net
Message-ID: <1150076986.983597.21920@c74g2000cwc.googlegroups.com>
Source record: 58047

Cecil Moore wrote:
> 1. A highly charged particle encountering one element of a bare
> copper wire dipole will transfer approximately half its charge
> to the wire.
>
> 2. A charge unbalance between the two elements of a dipole will
> cause a differential current to flow in a link coupled system.
>
> 3. The differential current may be detected by an RF receiver.

Only when it is AT THE FREQUENCY the receiver is tuned to.

So when you provide a DC path that does not short the antenna at radio frequencies, it does nothing.

The only exception to this is if the charge actually causes something to arc, but even then it is a long term buildup of charge.

> This is simply a false statement.

You can a call me a liar if you like, but it doesn't change the facts.

> > All that crud hitting the antenna isn't significantly different in
> > potential than the air around the element, it just has a lower
> > impedance.
>
> Absolutely false! Charged dust particles are a fact of life
> in the Arizona desert. There is often not enough moisture in
> the air to discharge them. Your limited experience is showing.
> How often does the relative humidity get down to 10% with
> high winds and dust in Georgia?

I haven't lived in Georgia all my life. Most of my experience with this is actually in Ohio, but on other reflectors like TowerTalk everyone seems to share the same common experiences.

> > As a matter of fact, it is rather silly to claim the particles
> > discharging make noise and then at the same time claim that a DC path
> > somehow reduces or eliminates that noise.
>
> I didn't claim it "reduces or eliminates that noise". I claimed
> it eliminates arcing which is certainly a type of noise.

We agree there. So why are you arguing?

If it charges the antenna to the point where a dielectric fails the sudden change will make a terrible noise and may even cause damage.

This is why no one should have a large element high in the air that
does not have a leakage path.

> > The CLOSER the antenna would
> > be allowed to float to the potential of the particles the LESS change
> > in potential would occur. Pulling the element to earth would make each
> > tiny discharge worse and make more noise, not less.
>
> My problem was that 1/2 of the antenna was at DC ground potential
> and the other half was floating which is typical of a store-bought
> G5RV. That seems to cause the worst case of arcing. But it is simple
> physics to realize that each particle acts independently. The charge
> transfer from each particle causes a tiny differential current between
> the two elements of the antenna. Millions of unsynchronized collisions
> per second certainly would produce differential RF noise.

In that case a ground on the floating side would make no difference, or
if anything make it worse. Think about it, or draw it on paper. The
charge differential (as you say above) is between the floating
particles and the earth. The greater the charge difference, the larger
the amount of charge transferred (as you said above).

If we agree on what you say above, the "millions of unsynchronized
collisions" would not impart less charge to the antenna when it is
closer to earth potential, they would impart more.

The fact is a dc path doesn't change a thing with one single exception,
the dc path prevents an antenna from building a charge in the
capaciatnce of the system, and prevents that voltage from building to
the point where some dielectric fails. Indeed that happens, and that is
why large high antennas should have a leakage path to earth.

Even on a clear calm day my 160 dipole at 300 feet, if I let the coax
dangle a few feet above earth, will knock a person for a loop when
touched. Inactive power lines, when open circuited, have to be clamped
to ground for the same reason. On a windy day the recharge rate of the
dipole is faster, and faster still in inclement weather.

When the weather is bad, there is corona off the antenna that makes a
sizzling sound that starts out as a series of slow pops and builds to
the point where it almost turns musical or tonal. If lightning flashes
even far in the distance, it immediately stops and rebuilds. The higher
the antenna and the sharper and more extended the ends, the worse the
problem is. Even when no moisture is hitting the wire.

73 Tom

3856. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 02:28:50 UTC
From: Marco S Hyman <marc@snafu.org>
Message-ID: <x7r71v85ul.fsf@neko.snafu.org>
Source record: 58048
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

jawod <jawod@fuse.net> writes:

> I don't understand. Possessive is the new standard? Your chops get busted
> whey you write "last year's work"?
> That IS possessive.

Is it? I've always wondered. Does the work "belong" to last year?
Does last year "own" the work? It's *my* work that was done last year.

Curious,

// marc

3857. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 04:17:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pV5jg.146628$F_3.104553@newssvr29.news.prodigy.net>
Source record: 58049

w8ji@akorn.net wrote:
> You can a call me a liar if you like, but it doesn't change the facts.

Being ignorant doesn't make you a liar. The fact is that
many hams have experienced charged particle noise. Your
denial of such doesn't change the known facts.

The meaning of most of your posting escapes me so I will
just summarize my position.

When I lived in the Arizona, clear-sky wind-driven charged
dust particles transferred lots of energy to my bare-wire
G5RV. It caused arcing whether the outside braid was grounded
or not. It only happened when the wind was blowing and
the humidity was very low.

I'm not sure what your point of disagreement is so help
me out.

Do you agree that a charged particle will transfer energy
to the bare wire in a dipole when it touches it? If not,
why not?

If the antenna were link coupled, do you agree that the
above transferred energy will try to equalize between the
two dipole elements? If not, why not?

Do you agree that the equalizing of the charges between
elements would cause a current to flow through the link?
If not, why not?
--
73, Cecil http://www.qsl.net/w5dxp

3858. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 04:24:10 UTC
From: nm5k@wt.net
Message-ID: <1150086250.066368.191230@u72g2000cwu.googlegroups.com>
Source record: 58050

Jim - NN7K wrote:
> Not to mention that noise is normally a phenonmen
> of the Vertical Plane (which , depending on how
> steep your inverted "vee" is, will contain some
> vertical component, while the yagi/quad is
> Horizontal to the plane. This has been a factor
> on vhf for years, as noise levels tend to peak
> at 6 meters (50 MHz). The MAIN reason that F.M.
> is Vertical polarized is that for mobiles, it is
> easy to construct an omni-directional antenna.
> Most vhf manuals detail this effect! Jim NN7K

Dunno...I don't see much difference as far as the polarity
of the antenna. It's more the polarity of the noise source,
and it's radiator. I've got both horizontal and vertical yagi's
on 2m, and I've seen many times when the local line noise
was much worse when horizontal. But I blame that on the
noise being radiated mainly by horizontal power lines.
I see cases of noise with both polarities, or mostly
vertical, or mostly horizontal. Just depends on the source
antenna. You usually see appx 20db attenuation when
cross polarized.
As far as Ken's loop vs inv vee, if the vee is picking up more
noise, that just means the vee is the best antenna at picking
up that particular noise and at that direction and angle.
If he were to transmit on the two antennas, and receive
them from the noise source, using the sources antenna,
the vee would be received the strongest more than likely.
It's all reciprical. Noise is rf just like any other signal, and
obeys the same rules. If a certain antenna picks up more
rf of any type, noise, or desired, it's the best antenna of the
bunch to receive that source of rf. Thats one reason why I
often chuckle about "noise problems".. As long as it's not
local or common mode pickup from the shack, that just means
the antenna is working, and doing what it's supposed to do.
MK

3859. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 04:50:16 UTC
From: BKR <REMOVESPAMrchvid7@lycos.comFilter>
Message-ID: <448cf28c@nntp.zianet.com>
Source record: 58051

Dave wrote:
> Ken Bessler wrote:
>
>> "Dave" <W1MCE@comcast.net> wrote in message
>> news:hcadnTpysL_RJBfZnZ2dnUVZ_qWdnZ2d@comcast.com...
>>
>>> Pray tell, in 50+ years of ham radio I have never heard 'pink noise'.
>>>
>>> What is it??
>>>
> SNIPPED
>
>>
>> I just used NCH tone generator to make pink noise - sounds
>> like what you hear on a AM when you open the squelch. I can
>> email you a sample if you'd like. :-)
>>
>> Ken
>>
>>
>
> For years we called that 'white' noise or 'background' noise.
>
> Now, with a full quieting signal, >20 uv, if it's being heard on FM I'd
> suspect the discriminator or limiter circuits. I'd start looking at the
> limiter.
>

No No No White noise is used where you want an equal distribution of
amplitude across the spectrum you are measuring.

Pink noise is used where you need a response that is similar to the
graph of human hearing for example. It is nonlinear across the bandwidth.

3860. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 04:54:02 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <Kr6jg.28754$QP4.22526@fed1read12>
Source record: 58052
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:AbqdnfZu6_9jKhHZnZ2dnUVZ_qudnZ2d@adelphia.com...

>
> I get my chops busted if I write with say last year's work instead of
> last years work.
>
> - 73 de Mike KB3EIA -

1. Too bad you have to work for/with people like that. " ... last year's work" is correct. The possessive does not exclusively denote ownership. It also denotes the "of or pertaining to" relationship, as in "Cleveland's bus system."

2. I just went to the McGraw-Hill Learning Center

http://highered.mcgraw-hill.com/sites/076743000x/student_view0/chapter1/apostrophes.html

and took their apostrophe quiz

Results Reporter
Out of 17 questions, you answered 17 correctly, for a final grade of 100%.

17 correct (100%)
0 incorrect (0%)
0 unanswered (0%)

Here's the most interesting one:

Last years womens softball team is much better than this years. [The stem omits apostrophes.]

C) Last year's women's softball team is much better than this year's.
Feedback: Correct!

3. Despite the absolute correctness of the apostrophe for the plural of numbers and letters, I see a lot of acronyms and abbreviations made plural by the addition of an "s" without the apostrophe and I don't flinch. I think the language is evolving regarding acronyms, which, after all, are less than 100 years old. Therefore, I vote to accept "SWRs."

73,
"Sal"
(KD6VKW)

3861. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 05:10:23 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <4H6jg.28755$QP4.3723@fed1read12>
Source record: 58053
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

"jawod" <jawod@fuse.net> wrote in message news:448B2227.2090601@fuse.net...

< snip >

I really can't relate to the impossibility
> of the task. Don't know how THIS old dog would do with a new trick.

I have a similar inability to relate, but it has to do with math. Most of it I ever studied came easily to me. However, some poor souls cannot regard simple real life situations in terms of math. For example, E-max for my lovely bride is the checkbook. That's it. [How many square yards in a 9 x 12 foot carpet? Duh - what color is it?]

I learn new tricks every day. Morse Code isn't one of them.

3862. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 06:44:54 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7l0q82l2ap9uosqrvi59bi2ib6484haeme@4ax.com>
Source record: 58054

On Sun, 11 Jun 2006 17:53:00 -0700, dansawyeror
<dansawyeror@comcast.net> wrote:

>The frequency is 147 MHz. The
>system is near resonance. The voltage measurements are taken with a pair of 10x
>probes, connected to a dual channel plug in (B plug in).

Hi Dan,

The use of 10x scope probes is an illusion at best, and certainly not
the way the "pros" do it by a long stretch.

>There is no significant change to the signal or the vector voltmeter readings
>when the probe leads are attached.

Compared to what? This is again an example of ambiguity that offers
nothing tangible except a "feel-good" kind of experience. Do you know
why there is "no significant change?" If you replace a 1x feed with a
10x probe, wouldn't you expect change? Your faith is based on what
would normally set off red lights and have warning flags being waved.

>The phase changes by less the 10 degrees and
>none of the amplitudes change noticeably. I do not believe the measurement
>system is materially influencing the measurements.

This is a faith-based feeling instead of rational expectation. It is
overwhelmingly obvious by your statement above that the system is
wholly out of whack with expectations.

A simple review of the actual probe can be instructive in this case to
explain why you see little change, and why you wouldn't use a scope
probe in the first place. Most 10x scope probes are not rated into
the VHF. The 10x probe is generally a 10 MOhm resistor with a
parallel 10pf variable capacitor. Simple math would reveal that at
147 MHz that cap presents about 100 Ohms reactance - hardly worth the
effort and certainly no where near a 10x function. The equipment 10x
probe (not a 10x scope probe) has only 2pF of capacitance (5 times the
reactance of a scope probe) and a tenth of the 10x scope probe
resistance. What you are reading as scaled voltage is not what is
present to be measured, but a complex, phase shifted value.

You have absolutely no rational basis to use a 10x probe of any kind.
Skip this unnecessary elaboration.

73's
Richard Clark, KB7QHC

3863. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 06:50:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <5d3q82tp0vta4mu3i4843sqts18j86ota9@4ax.com>
Source record: 58055

On Sun, 11 Jun 2006 21:33:51 -0400, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:
>the original poster spoke of a hypothetical wire
>not working at 4 feet underwater.

Hi Mike,

This hypothesis was a home-grown and hand rolled fantasy.

> I don't doubt that the problem has been solved (if it exists in the
>first place).

Oh, there is a problem alright: Making the lesson penetrate a quarter
inch of skull with more success than RF struggling through an
imaginary 4 foot skin depth of water problem.

73's
Richard Clark, KB7QHC

3864. Re: Wide bandwidth ladder line J-pole for 6-Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 07:05:42 UTC
From: Jeff <jeff@local.host>
Message-ID: <e6j3h7ncu1@nntp.aioe.org>
Source record: 58056

Have you not just re-invented the 'Slim Jim'??

73
Jeff

"Chuck Olson" <chuckolson01@REMOVETHIScomcast.net> wrote in message
news:5ZWdnbe8ZP27NBHZnZ2dnUVZ_vudnZ2d@comcast.com...
> I've been working on a ladder line J-Pole design for 6m, but have had very
> little luck until today. The problem has been critical tuning and narrow
> SWR
> bandwidth. The improvement came today when I implemented an idea I had
> concerning the severed piece of wire that "just goes along for the ride"
> in
> the ladder line after cutting the 1/4" gap for the 1/4-wave shorted stub.
> I
> figured that many successful 50 MHz J-Poles are made from copper tubing
> because the thicker elements give it good bandwidth. My idea was to make
> use
> of the extra wire and connect it at top and at the gap to the radiator
> side,
> making the half-wave radiator act as a much thicker element. My 2:1
> bandwidth went from 300 KHz to 2 MHz.
>
> The resulting antenna design is very straightforward, using the Velocity
> Factor of 0.91 for the 1/4-wave stub and 0.95 for the radiator. This
> essentially sets the radiator length equal to the standard 468/F dipole
> length. If you analyze the operation of the very successful "Open Stub
> J-Pole" that Arrow makes, you will find they use the 0.95 FV for both the
> radiator and the stub, which is appropriate in their open design. So that
> pointed me in that direction as far as cutting lengths are concerned. The
> only remaining question was the location of the feed tap for 50-ohm cable.
> I
> used alligator clips on the coax to find the best position, and that
> turned
> out to be 4 3/8" up from the shorted bottom end, with the shield going to
> the gap side. My rig sees a 1:1 SWR from 50.0 to 51.2 MHz, and it gets to
> 1.6:1 at 52.1 MHz. With this information, it should be easy to design one
> that takes full advantage of the antenna's bandwidth to provide operation
> over the widest segment of the 6M band.
>
> My intuition told me that there should be some advantage to using 450-ohm
> ladder line compared to 300-ohm twinlead. Maybe this extra bandwidth is
> it.
>
> 73,

>
> Chuck, W6PKP
>
>

3865. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 09:19:45 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <128qcdkbphel65f@corp.supernews.com>
Source record: 58057

In addition to the weaknesses of scope probes mentioned by Richard is the ground lead. Even a short one has considerable reactance at VHF, and its use will promote common mode current on the outside of the probe cable. Any decent scope measurement at very high frequencies is done with an adapter which connects directly to the ground ring near the end of the probe, through a very short conductor. An example is the one sold by Tektronix, P/N 013-0085-00 the last time I checked. Even it must be used with some care.

I don't see any hope in your making meaningful measurement with the setup you describe -- there are too many potential sources of serious error.

Roy Lewallen, W7EL

3866. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 12:37:11 UTC
From: jawod <jawod@fuse.net>
Message-ID: <448D5FF7.4040907@fuse.net>
Source record: 58058
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Marco S Hyman wrote:
> jawod <jawod@fuse.net> writes:
>
>
>>I don't understand. Possessive is the new standard? Your chops get busted
>>whey you write "last year's work"?
>>That IS possessive.
>
>
> Is it? I've always wondered. Does the work "belong" to last year?
> Does last year "own" the work? It's *my* work that was done last year.
>
> Curious,
>
> // marc
yes at least to me "last year's work" as opposed to some other
"year's work" pretty sure that's possessive

John

3867. Moxon antenna purchase

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 12:44:12 UTC
From: "k2jxw@comcast.net" <lighthouse@arlhs.net>
Message-ID: <ms2dndYIIJQH_BDZnZ2dnUVZ_tGdnZ2d@comcast.com>
Source record: 58059

Does anyone know where to buy a manufactured 20 Meter Moxon antenna?
Physical condition precludes building one myself. I know there is a
commercial 6 Meter version available, but what about 20 M and where to buy
it?
Jim
KC2HOU

3868. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 12:49:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Dpdjg.146825$F_3.840@newssvr29.news.prodigy.net>
Source record: 58060
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

```
jawod wrote:
> yes at least to me "last year's work" as opposed to some other
> "year's work" pretty sure that's possessive

A year is an it. Is it possessive because it's its work?
--
73, Cecil http://www.qsl.net/w5dxp
```

3869. hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 12:57:41 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <448d64a0$0$16401$892e7fe2@authen.yellow.readfreenews.net>
Source record: 58061

why do dislike 5/8 wave antennas? can you point me to any references. i realize there is a high lobe.

i have an old Low Band Dxing, and ON4UN seems to like 5/8 on 40. i personally tried a 5/8 vertical on 10 with bad results. however, my ground system was terrible.

i plan to try 5/8 with full 120 * 1/2 wave radials.

i remember at one multi-single, we had a 1/4 wave 10 meter at 100 feet that was even with the beams sometimes.

i believe K3LR mentioned he was building a 10 meter 5/8 wave 4 square. was he kidding?

Gravity

3870. Re: hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 13:00:17 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <448d653c$0$84074$892e7fe2@authen.yellow.readfreenews.net>
Source record: 58062

one thing i've been pondering is a vertical colinear. 1/2 wave over 1/2 wave. i have not modeled it.

is there any free modeling software?

i noticed that you stated that phased arrays with elements separated by more than 2 waves don't work well. i was thinking of a vertical array, either inline or broadside.

Gravity

3871. Re: hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 13:04:28 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <448d6637$0$80513$892e7fe2@authen.yellow.readfreenews.net>
Source record: 58063

just some random thoughts:

a ground system for 10 meter 4-square would be 240 waves worth of wire (minus some because of shared radials). that's 8000 feet, at 5 cents a foot, $200. you can set up a beam at 30 feet for that price.

scaling up to 40 meters, that's a lot of wire.

Gravity

3872. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 13:47:36 UTC
From: hayseed <hayseed@rainmaker.com>
Message-ID: <448d6fe1$0$23707$a82e2bb9@reader.athenanews.com>
Source record: 58064
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Everybody is correct and everybody is wrong.

According to Turabian's "A Manual for Writers", plurals of most single
and multiple capital letters used as nouns are formed by adding "s"
alone. Example: SWRs
Form the plural of small letters, capital letters with periods, and
capital letters that would be confusing if "s" alone were added by
adding apostrophe and "s".

Now, everybody, back to work and mind your p's and Qs

73

3873. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 14:28:45 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e6jtmt$r5m$1@f04n12.cac.psu.edu>
Source record: 58065

Richard Clark wrote:
> On Sun, 11 Jun 2006 21:33:51 -0400, Mike Coslo
> <mremovethiscoslo@adelphia.net> wrote:
>> the original poster spoke of a hypothetical wire
>> not working at 4 feet underwater.
>
> Hi Mike,
>
> This hypothesis was a home-grown and hand rolled fantasy.
>
>> I don't doubt that the problem has been solved (if it exists in the
>> first place).
>
> Oh, there is a problem alright: Making the lesson penetrate a quarter
> inch of skull with more success than RF struggling through an
> imaginary 4 foot skin depth of water problem.

Which won't happen until we discuss this into showing how it is
impossible to put a radio on a ship! hehehe 8^)

- 73 de Mike KB3EIA -

3874. Re: Wide bandwidth ladder line J-pole for 6-Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 14:50:25 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <TLydnWG3ddS34hDZnZ2dnUVZ_tKdnZ2d@comcast.com>
Source record: 58066

Hi, Jeff,

Thanks for the reference to a similar design. The Slim-Jim may perform as well as the thing that I put together, but my implementation added a connection from the bottom end of the radiator opposite the gap to the wire end above the gap. Computer simulation may reveal that both perform identically despite the difference. In that case, I would suggest leaving out that bottom connection since it's a little extra work. The Slim-Jim never came up in my search effort to find a good J-Pole design, so I'm glad to see this promising area of further search.

73

Chuck, W6PKP

"Jeff" <jeff@local.host> wrote in message news:e6j3h7ncu1@nntp.aioe.org...
> Have you not just re-invented the 'Slim Jim'??
>
> 73
> Jeff
>
> "Chuck Olson" <chuckolson01@REMOVETHIScomcast.net> wrote in message
> news:5ZWdnbe8ZP27NBHZnZ2dnUVZ_vudnZ2d@comcast.com...
> > I've been working on a ladder line J-Pole design for 6m, but have had
very
> > little luck until today. The problem has been critical tuning and narrow
> > SWR
> > bandwidth. The improvement came today when I implemented an idea I had
> > concerning the severed piece of wire that "just goes along for the ride"
> > in
> > the ladder line after cutting the 1/4" gap for the 1/4-wave shorted
stub.
> > I
> > figured that many successful 50 MHz J-Poles are made from copper tubing
> > because the thicker elements give it good bandwidth. My idea was to make
> > use
> > of the extra wire and connect it at top and at the gap to the radiator
> > side,
> > making the half-wave radiator act as a much thicker element. My 2:1
> > bandwidth went from 300 KHz to 2 MHz.
> >
> > The resulting antenna design is very straightforward, using the Velocity
> > Factor of 0.91 for the 1/4-wave stub and 0.95 for the radiator. This
> > essentially sets the radiator length equal to the standard 468/F dipole
> > length. If you analyze the operation of the very successful "Open Stub

> > J-Pole" that Arrow makes, you will find they use the 0.95 FV for both
the
> > radiator and the stub, which is appropriate in their open design. So
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> > pointed me in that direction as far as cutting lengths are concerned.
The
> > only remaining question was the location of the feed tap for 50-ohm
cable.
> > I
> > used alligator clips on the coax to find the best position, and that
> > turned
> > out to be 4 3/8" up from the shorted bottom end, with the shield going
to
> > the gap side. My rig sees a 1:1 SWR from 50.0 to 51.2 MHz, and it gets
to
> > 1.6:1 at 52.1 MHz. With this information, it should be easy to design
one
> > that takes full advantage of the antenna's bandwidth to provide
operation
> > over the widest segment of the 6M band.
> >
> > My intuition told me that there should be some advantage to using
450-ohm
> > ladder line compared to 300-ohm twinlead. Maybe this extra bandwidth is
> > it.
> >
> > 73,
> >
> > Chuck, W6PKP
> >
> >
>
>

3875. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 15:00:34 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e6jvip$1a4e$1@f04n12.cac.psu.edu>
Source record: 58067
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap

Sal M. Onella wrote:
> "jawod" <jawod@fuse.net> wrote in message news:448B2227.2090601@fuse.net...
>
> < snip >
>
> I really can't relate to the impossibility
>> of the task. Don't know how THIS old dog would do with a new trick.
>
> I have a similar inability to relate, but it has to do with math. Most of
> it I ever studied came easily to me. However, some poor souls cannot regard
> simple real life situations in terms of math. For example, E-max for my
> lovely bride is the checkbook. That's it. [How many square yards in a 9 x
> 12 foot carpet? Duh - what color is it?]
>
> I learn new tricks every day. Morse Code isn't one of them.

The real issue is probably that HF privileges are probably just not that important to you. I have enough hearing problems that learning Morse was darn hard. 60-70 db tinnitus, (est) and hearing holes in the higher frequencies, and just can't hear for crap.

When I got my Tech license, a lot of people told me that "Morse code is going away any day now, no need to learn that stuff".

I'm glad I didn't listen to them - I have had HF access for 6 years now, and if learning Morse was the price I had to pay, then it was worth it. YMMV

Since it may be a couple years more until the Morse code test is eliminated (if even then) my decision is looking better all the time.

- 73 de Mike KB3EIA -

3876. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 15:04:37 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e6jvq5$s24$1@f04n12.cac.psu.edu>
Source record: 58068

Owen Duffy wrote:
> On Fri, 09 Jun 2006 15:33:59 GMT, Cecil Moore <mycall@hotmail.com>
> wrote:
>
>
>> One thing interesting about the Cobra-Jr is that if it is
>> made 62 feet long instead of 73 feet long, it becomes
>> resonant around 3.85 MHz with a feedpoint impedance of
>> about 16 ohms. That's an SWR of only about 3:1 on coax.
>> or ~1.3:1 using a 1:4 balun. That's a half size antenna
>> for 75m that is only about 1.5 dB down from a full size
>> 1/2WL dipole.
>
> Where are you observing resonance?
>
> I created a model with ~73' length that does resonate (low Z) at the
> dipole centre around 3.6MHz. Other factors affect resonance a little,
> but you may want to check your model to see it is laid out properly
> and connected up properly.

I'm modeling the thing in 4nec2 now. I get different results than both of you, so I need to go back to the drawing board.....

I've always wondered though if some mfgr's fudge a little on their lengths to cloud the issue a bit. But then I make my antennas, so I never bought one to check.

- 73 de mike KB3EIA -

3877. Re: hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 15:11:39 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <bqc0m3-6jq.ln1@p400bob.personal.cox.net>
Source record: 58070

4NEC2?

http://home.ict.nl/~arivoors/Home.htm

Cheers Bob VK2YQA

gravity wrote:

> is there any free modeling software?

3878. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 15:58:30 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <128r3pa74ftgdb8@corp.supernews.com>
Source record: 58069
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

hayseed wrote:

> Everybody is correct and everybody is wrong.
>
> According to Turabian's "A Manual for Writers", plurals of most single
> and multiple capital letters used as nouns are formed by adding "s"
> alone. Example: SWRs
> Form the plural of small letters, capital letters with periods, and
> capital letters that would be confusing if "s" alone were added by
> adding apostrophe and "s".
>
> Now, everybody, back to work and mind your p's and Qs
>
> 73

My question is: just what is/are "SWR's" and "SWRs"

Dave WD9BDZ

3879. Re: hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 17:11:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ifhjg.23800$VE1.2929@newssvr14.news.prodigy.com>
Source record: 58071

gravity wrote:
> one thing i've been pondering is a vertical colinear. 1/2 wave over 1/2
> wave. i have not modeled it.
>
> is there any free modeling software?

You can use the free demo copy of EZNEC by driving the
collinear with two sources and varying the phase angle
between them. Then you can design an appropriate phasing
network. I don't think the lumped inductive reactance
available in EZNEC will yield an accurate phase shift
and the free demo will not handle enough segments to
model a helical coil.
--
73, Cecil http://www.qsl.net/w5dxp

3880. Re: hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 17:13:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <mhhjg.23801$VE1.12511@newssvr14.news.prodigy.com>
Source record: 58072

gravity wrote:
> just some random thoughts:
>
> a ground system for 10 meter 4-square would be 240 waves worth of wire
> (minus some because of shared radials). that's 8000 feet, at 5 cents a
> foot, $200. you can set up a beam at 30 feet for that price.

Or how about a 10m rotatable EDZ? No radials required.
--
73, Cecil http://www.qsl.net/w5dxp

3881. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 17:20:40 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <lnhjg.23804$VE1.14023@newssvr14.news.prodigy.com>
Source record: 58073
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

hayseed wrote:
> Now, everybody, back to work and mind your p's and Qs

As in words like, "amen", are pronounced "ah".

That certainly seems confusing to me and the confusion
is not apparent until more than halfway through the
sentence.

A's in words like, "amen", are pronounced "ah".

No confusion there.
--
73, Cecil http://www.qsl.net/w5dxp

3882. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 17:51:58 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <2Rhjg.43959$fb2.30213@newssvr27.news.prodigy.net>
Source record: 58074
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Cecil Moore wrote:
...
>
> A's in words like, "amen", are pronounced "ah".
>
...

Not where I come from.
73,
Tom Donaly, KA6RUH

3883. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 18:12:09 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <KsWdnamoYL7gMxDZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 58075
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

I married an English Major once..... If you ever have the
choice........Don't

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:2Rhjg.43959$fb2.30213@newssvr27.news.prodigy.net...
> Cecil Moore wrote:
> ...
>>
>> A's in words like, "amen", are pronounced "ah".
>>
> ...
>
> Not where I come from.
> 73,
> Tom Donaly, KA6RUH

3884. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 18:59:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <5Qijg.43979$fb2.36034@newssvr27.news.prodigy.net>
Source record: 57976
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Tom Donaly wrote:

> Cecil Moore wrote:
>> A's in words like, "amen", are pronounced "ah".

> Not where I come from.

I know hillbillies still use the long 'A'. :-)
Did you know that when Jesus prayed to God in
Aramaic, he probably prayed to "Allah"?
--
73, Cecil http://www.qsl.net/w5dxp

3885. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 19:11:27 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <128rf327u816lb1@corp.supernews.com>
Source record: 57977
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Cecil Moore wrote:

> hayseed wrote:
>
>> Now, everybody, back to work and mind your p's and Qs
>
>
> As in words like, "amen", are pronounced "ah".
>
> That certainly seems confusing to me and the confusion
> is not apparent until more than halfway through the
> sentence.
>
> A's in words like, "amen", are pronounced "ah".
>
> No confusion there.

How about IDEA pronounced "IDEer"

3886. 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 19:17:44 UTC
From: "K. Hastings" <myfamilydotcom@hotmail.com>
Message-ID: <s5jjg.21651$A26.486919@ursa-nb00s0.nbnet.nb.ca>
Source record: 57978

I recently built a decent 3-element 2 M Quad that fits inside my insulated attic (just barely) and is all connected to my shack. Worked great... The problem now is that the SWR is very high (>>3:1) on all freqs above the 145 MHz channels.

I think that the Quad, when tested inside the house had a great match across the band from what I recall.

This thing is fed with RG-8 and I purposely put a whole bunch of turns into a 5" coil near the feed point, and I'm wondering if I should have done that at all now. I'm sure that the match would be different regardless since it's now located in a different space, and I understand how that can change things.

It's dark and itchy up there - before I go up there and unwind the whole BALUN, can you guys tell me whether or not I even need that thing, or have I got another problem.

FWIW it works great - decent gain and nicely directional - but the SWR is too high, and it resets all the programmable thermostats clocks in the house when I key up (interesting RFI huh?) which my attic ground-plane DOES NOT do.

help?

Kevin VE9-XYZ
myfamilydotcom@hotmail.com

3887. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 19:28:38 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <Bfjjg.10989$gv2.4052@bignews3.bellsouth.net>
Source record: 57979

"Boborato" <atmosfera.web@gmail.com> wrote in message
news:e6e4u3jel1@news.nivel5.cl...
> Hi group.
>
> I wanna know how can I get the FM signal without that nasty 'pink' noise.
>
> I'm not using any kind of external antenna.
>
> Greetings!!
>

Use an outside antenna

3888. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 19:34:47 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-EB2876.12344712062006@newsclstr02.news.prodigy.com>
Source record: 57980
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc

In article <128rf327u816lb1@corp.supernews.com>,
"David G. Nagel" <nagel@core.com> wrote:

> Cecil Moore wrote:
>
> > hayseed wrote:
> >
> >> Now, everybody, back to work and mind your p's and Qs
> >
> >

How about dropping rec.radio.shortwave from the news group list.

Thanks in advance.

--
Telamon
Ventura, California

3889. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 20:10:05 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <v7ir82lfd6dtckmrvl3dsuavgrd1cqn0cs@4ax.com>
Source record: 57981

On Mon, 12 Jun 2006 19:17:44 GMT, "K. Hastings"
>I think that the Quad, when tested inside the house had a great match across
>the band from what I recall.

Hi Kevin,

You have just defined its environment.

>This thing is fed with RG-8 and I purposely put a whole bunch of turns into
>a 5" coil near the feed point, and ... it resets all the programmable thermostats clocks in the house
>when I key up (interesting RFI huh?)

Do you find the hidden clue when all the excess verbiage is cleared
away?

A whole bunch of turns is not very specific except to indicate you
probably overdid it and negated any benefit you might have expected.
Would it help to say fewer turns on a smaller form?

That, however, is probably not what is responsible for the SWR. You
are going to have to tune the antenna in place AFTER you successfully
isolate the drive line.

73's
Richard Clark, KB7QHC

3890. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 20:22:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <q2kjg.114248$dW3.26422@newssvr21.news.prodigy.com>
Source record: 57982
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

David G. Nagel wrote:
> How about IDEA pronounced "IDEer"

Y'all from Boston?
--
73, Cecil http://www.qsl.net/w5dxp

3891. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 20:38:44 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-9891B7.13384412062006@newsclstr02.news.prodigy.com>
Source record: 57983
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc

In article <q2kjg.114248$dW3.26422@newssvr21.news.prodigy.com>,
Cecil Moore <mycall@hotmail.com> wrote:

> David G. Nagel wrote:
> > How about IDEA pronounced "IDEer"
>
> Y'all from Boston?

No.

How about dropping rec.radio.shorwave from the thread.

Thanks in advance.

--
Telamon
Ventura, California

3892. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 21:10:04 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <nuir82t9uoifa4di8ihorq5ievem98oecf@4ax.com>
Source record: 57984

My trip down that road was called a "Gotham Vertical".
What it lacked in performance, it made up for in education!
Google it for an evening of fun reading...
de W8CCW John

On Fri, 09 Jun 2006 02:03:43 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>w8ji@akorn.net wrote:
>> The problem is that antenna is advertised to work all bands.
>> Unfortunately it doesn't do very well on many bands.
>
>Sounds like a G5RV.
John Ferrell W8CCW

3893. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 21:10:04 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <3fkr82hl0ugon8vrja2r6bt8dpj2c5cna9@4ax.com>
Source record: 57985

Neat. I especially like the Black Noise...
On Sat, 10 Jun 2006 08:08:24 -0500, "TSnCS" <noboday@home.com> wrote:

>http://en.wikipedia.org/wiki/Pink_noise
>
>Then compare to http://en.wikipedia.org/wiki/White_noise
>
John Ferrell W8CCW

3894. Re: I bought a large capacitance hat for my shortwave antenna, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 21:25:03 UTC
From: cq-dx@arrl.net
Message-ID: <sdoif0sd-sjdfsd-23ikj4rwe@news.arrl.net>
Source record: 57986
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

In article <telamon_spamshield-EB2876.12344712062006@newsclstr02.news.prodigy.com>,
Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote:
>In article <128rf327u816lb1@corp.supernews.com>,
> "David G. Nagel" <nagel@core.com> wrote:
>
>> Cecil Moore wrote:
>>
>> > hayseed wrote:
>> >
>> >> Now, everybody, back to work and mind your p's and Qs
>> >
>> >
>>
>How about dropping rec.radio.shortwave from the news group list.
>
>Thanks in advance.
>
>--
>Telamon
>Ventura, California

Did I get ripped off?

3895. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 21:46:31 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <Xgljg.11020$OL2.4640@trnddc06>
Source record: 57987

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:v7ir82lfd6dtckmrvl3dsuavgrd1cqn0cs@4ax.com...
> On Mon, 12 Jun 2006 19:17:44 GMT, "K. Hastings"
>>I think that the Quad, when tested inside the house had a great match
>>across
>>the band from what I recall.
>
> Hi Kevin,
>
> You have just defined its environment.
>
>>This thing is fed with RG-8 and I purposely put a whole bunch of turns
>>into
>>a 5" coil near the feed point, and ... it resets all the programmable
>>thermostats clocks in the house
>>when I key up (interesting RFI huh?)
>
> Do you find the hidden clue when all the excess verbiage is cleared
> away?
>
> A whole bunch of turns is not very specific except to indicate you
> probably overdid it and negated any benefit you might have expected.
> Would it help to say fewer turns on a smaller form?
>
> That, however, is probably not what is responsible for the SWR. You
> are going to have to tune the antenna in place AFTER you successfully
> isolate the drive line.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard

As you know, I have been getting good results with the high permeability ferrite tubes for decoupling the coax feed line on my balanced antenna. I bought a bunch of inexpensive ferrites that were intended for absorbing RFI, from All Electronics. Would it be practical for Kevin, the orginal poster, to get decent results with a few ferrites covering the coax where it seperates from the boom??

Jerry

3896. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 21:59:14 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <bhor82thhjh6krfeg4r67ptb9m4jdg4n1s@4ax.com>
Source record: 57988

On Mon, 12 Jun 2006 11:04:37 -0400, Michael Coslo <mjc5@psu.edu>
wrote:

> I'm modeling the thing in 4nec2 now. I get different results than both
>of you, so I need to go back to the drawing board.....

The NEC deck for my models is linked from the article. You will need
to replace the $freq symbolic variable though with a number.

Owen
--

3897. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 22:00:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sqor82tt9rminjmmc5ocs406n8j321btol@4ax.com>
Source record: 57989

On Mon, 12 Jun 2006 21:46:31 GMT, "Jerry Martes"
<j.jmartes@verizon.net> wrote:
> Hi Richard
>
> As you know, I have been getting good results with the high permeability
>ferrite tubes for decoupling the coax feed line on my balanced antenna. I
>bought a bunch of inexpensive ferrites that were intended for absorbing RFI,
>from All Electronics. Would it be practical for Kevin, the orginal poster,
>to get decent results with a few ferrites covering the coax where it
>seperates from the boom??

Hi Jerry,

Sure, but you have the advantage of being able to measure the Z of
those ferrites. However, buying them rummage style and hoping they
will work does not always bring a satisfactory solution.

73's
Richard Clark, KB7QHC

3898. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 22:52:29 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <yfmjg.33$_u5.22@fe08.lga>
Source record: 57990

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:pV5jg.146628$F_3.104553@newssvr29.news.prodigy.net...
> w8ji@akorn.net wrote:
>> You can a call me a liar if you like, but it doesn't change the facts.
>
> Being ignorant doesn't make you a liar. The fact is that
> many hams have experienced charged particle noise. Your
> denial of such doesn't change the known facts.
>
> The meaning of most of your posting escapes me so I will
> just summarize my position.
>
> When I lived in the Arizona, clear-sky wind-driven charged
> dust particles transferred lots of energy to my bare-wire
> G5RV. It caused arcing whether the outside braid was grounded
> or not. It only happened when the wind was blowing and
> the humidity was very low.
>
> I'm not sure what your point of disagreement is so help
> me out.
>

Youze guyz are arguing about two cases of "arcing" and going off on
tangents.

First case is as Cecil has experienced and 'splained, is the static
electricity charge buildup and corresponding noise/discharge on conducting
"things" due to charged particles - aka rubbing the glass rod with furry
animal coat. The part (antenna) gets charge from the "rubbing" by the
particles, air, whatever...., builds up voltage and is looking for discharge
across anything that provides jumping points for the voltage accumulated.
This is the case of clear Arizona skies, with no clouds in sight, just wind
doing it's "thing". W8JI might not believe it, but it IS the fact.

Second case is, as it was hotly discussed on Contest and other reflectors,
and first mentioned by VE3BMV, W0UN, W4ZV and others, in conjunction with
lightning and protection against it - is the static electricity charge
buildup due to the clouds "rubbing" in the air and creating huge static
charge between the clouds and the earth ground and objects "residing" on
ground and connected to it. There the highest , mostly grounded, objects get
"first crack" at the "touching" the voltage gradient generated by the static
electricity buildup. If there is a sharp object, it will start "acting" by
generating corona and "peacefully" discharging the potential. If it can't
keep up with rate of "peaceful" charge, it will invite lightning strike. The
corona can be visible at the times, or it doesn't have to be.

Then we get cases when the high antenna is the highest object and will be the "discharger" and the noisiest one. That appears to discharge the charge from the area (space) in the vicinity of the high (object) antenna - umbrella. You can look at it as a capacitor plate, collecting charge from the space around it. Lower antennas get benefit of discharged space and are quiet. This is especially noticeable with stacked antennas. The top one would be typically 20/9 noise - hash, the lower one would be dead quiet. The same then applies when you have higher object than antenna in question, that antenna could be quiet, but when (beam) is aimed at the higher object (the static discharger) it can receive noise, but at much lower strength.

This umbrella effect seems also work as a lightning prevention by discharging the space in the vicinity of the structure and preventing critical buildup of voltage causing creating of leader and inviting lightning strike (99.9%). I and others have noticed practical elimination of lightning strikes to our installation when sporting tall, grounded towers with large antennas (capacitor plates). They seem to bleed the deadly potential from the air "sandwich" between the sky (clouds) and ground and objects under the "umbrella" and making lightning look at pointy grounded objects before and after our "ugly" antennas and discharge their deadly megawatts there.
So large antennas on tall towers - GOOD to repell lightning. Pointy, sharp objects - BAAAAD, they attract lightning. So, one can protect his QTH and radio junk by either inviting lightning to strike the lightning arresters and hopefully conduct them to ground, or better, repelling it by the Antenna Umbrella - the biggest mother antenna (capacitor plate) on the tallest possible and well grounded tower (no protruding VHF vertical pointy junk above) you can put up.

Scientwists might not find this believable, but those with big towers and large grounded antennas noticed remarkable absence of direct lightning strikes vs. when previously sporting pointy verticals or towers without antennas on the top.
When I had my TH6 at 60 ft. and above it, way up 2m Ringo Ranger on a mast, I got visited by direct lightning trice within 2 years. When put up Big Bertha with 60 ft boom Razors, never again over 10 years. Not very statistically scientific, but very noticeable. Same experienced by W0UN, W0ZV and others.

Soooo, the judge's verdict is: Cecil is right, W8JI is partially right, jury to judge by the above 'splanation of this humble servant. :-)

I hope this clears some static static.

--
Yuri Blanarovich, K3BU, VE3BMV

3899. Re: RF grounding methods for sailboats: A Summary

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 22:57:00 UTC
From: Bruce in Alaska <bruceg@btpost.net>
Message-ID: <bruceg-CC1267.14580512062006@netnews.worldnet.att.net>
Source record: 57991

In article <06WdndDEvojgWRHZnZ2dnUVZ_o-dnZ2d@adelphia.com>,
Mike Coslo <mremovethiscoslo@adelphia.net> wrote:

> I'm not so sure the exact size ship we speak of. But if you recall back
> a long time ago when the original poster spoke of a hypothetical wire
> not working at 4 feet underwater. I even suspect that a 30 foot vessel
> might take greater than a 4 foot excursion, especially in your neck of
> the woods!

It really doesn't matter if the vessel has a draft of 4 feet or 24
feet,as the coupling to the seawater is to the hull/water boundry
which is the same as the surface of the water from the RF point of
view. Skin Effect, or Skin Depth @ any frequency is a Surface Effect
and that surface is the hull/water boundry, for any hull material.

Bruce in alaska
--
add a <2> before @

3900. Re: hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 23:04:31 UTC
From: w8ji@akorn.net
Message-ID: <1150153471.710936.106120@j55g2000cwa.googlegroups.com>
Source record: 57992

gravity wrote:
> why do dislike 5/8 wave antennas? can you point me to any references. i
> realize there is a high lobe.
>

Anyone who understands how a 5/8th wave works, and who isn't captivated
by the popular fantasy that the length makes the gain, would know what
the problems are.

A 5/8th wave antenna gets its gain from the ground reflection. The
ground reflection is what form the "image" that produces the gain.

Unless the ground is very large and flat and highly conductive, the
5/8th wave antenna concentrates most of its energy at high
angles.....not along the ground.

Move the 5/8th wave up above the ground or use a poor ground, and
maximum low angle FS comes from shorter antennas.

If you look at:

http://www.cebik.com/gp/58-1.html

you will see a 5/8th wave on 80 meters with a large flat ground system
not only gives marginal gain over a 1/4 w, it also has a null aat the
most useful wave angles for most work.

If you elevate the 5/8th wave or take away the good ground system, the
very small advantage it has goes away.

As a matter of fact AM BC stations, despite their large ground systems,
abandoned the 5/8th wave many years ago. They found in the real world
use of 5/8th waves instead of extending coverage they reduced coverage.

73 Tom

3901. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 23:05:10 UTC
From: jawod <jawod@fuse.net>
Message-ID: <448DF326.1090300@fuse.net>
Source record: 57993
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Cecil Moore wrote:
> jawod wrote:
>
>> yes at least to me "last year's work" as opposed to some other
>> "year's work" pretty sure that's possessive
>
>
> A year is an it. Is it possessive because it's its work?
How did this get started? :)

Whose on first?

No answer on the antenna trickle charger?

3902. tri-band HF beam for portable ops ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 23:09:05 UTC
From: Thierry
Message-ID: <448df40f$1@news.vo.lu>
Source record: 57994

Hi,

I am interested in buying a triband yagi (20-15-10) for portable operations
But I suspect such antennas, most being made of aluminium, to be heay (over
10 kg) and maybe not easy to dismantle regularly
I review on my webiste various portable configurations, so I know quite well
the problem.

I would like to know if some of you have testes successfully such
installations using the minimum of hardware (transportation using an
ordinary car, not a break, not a pickup and not a 4x4, installation by only
one person, small beam placed on a single pod 8-10m high, one guy-wire, no
rotator) for a on-day activity, the Tx working on battery.

If you work in the field with a small beam, what difficilty do you
experimented (weght, wingspan, other)?

Thanks

Thierry
ON4SKY, LX4SKY
http://www.astrosurf.org/lombry/menu-qsl.htm

3903. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 23:40:19 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <DXmjg.4845$hN2.787@trnddc05>
Source record: 57995

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:sqor82tt9rminjmmc5ocs406n8j321btol@4ax.com...
> On Mon, 12 Jun 2006 21:46:31 GMT, "Jerry Martes"
> <j.jmartes@verizon.net> wrote:
>> Hi Richard
>>
>> As you know, I have been getting good results with the high permeability
>>ferrite tubes for decoupling the coax feed line on my balanced antenna.
>>I
>>bought a bunch of inexpensive ferrites that were intended for absorbing
>>RFI,
>>from All Electronics. Would it be practical for Kevin, the orginal
>>poster,
>>to get decent results with a few ferrites covering the coax where it
>>seperates from the boom??
>
> Hi Jerry,
>
> Sure, but you have the advantage of being able to measure the Z of
> those ferrites. However, buying them rummage style and hoping they
> will work does not always bring a satisfactory solution.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard

I realize that I place way more emphasis on "Amateur" in the HAM concept.
I'm not inclined to depend on using only the best component. But, it seems
that any of those ferrite tubes that were intended to be used to minimize
RFI will work well at 144 MHz. So, since they are cheap and available, I
thought it might be worth trying some inexpensive, high permeability tubes
instead of coiling the coax into a coil.
I did measure the impedance across a loop of RG 223 with 4 tubes around
the outside. The problem I come up with is my ignorance of *whats needed*
for adequate decoupling of the balanced antenna from the outside of the
coax.
I depend on you to shed light on alot of the things I try.

Jerry

3904. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-12 23:42:29 UTC
From: Dave <noone@nowhere.com>
Message-ID: <xYydnYYt8-xvZhDZnZ2dnUVZ_qednZ2d@crocker.com>
Source record: 57996

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:ioSdnS-Z1smBKxHZnZ2dnUVZ_sydnZ2d@adelphia.com...
> Cecil Moore wrote:
>> w8ji@akorn.net wrote:
>>
>>> J. Mc Laughlin wrote:
>>>
>>>> P-noise is observed when there is no rain nor thunderstorms, but plenty
>>>> of wind. This is suggestive of moving charge discharging into the
>>>> antenna.
>>>
>>>
>>> So how does it get there? How does it build up? Where is the spark arc
>>> or sizzle?
>>
>>
>> This is a well known phenomenon in Arizona. What else, besides
>> charged dust particles, could cause arcing at coax connectors
>> on a perfectly clear windy day?
>
> A large scale demo of this effect can be seen during volcanic eruptions,
> when large amounts of dust are thrown into the atmosphere at high speeds.
> Lightning happens.
>
>
> http://www.guardian.co.uk/life/feature/story/0,13026,1368962,00.html
>
>
> It is not certainty, but particles rubbing against each other do a pretty
> good job of building up static.
>
> - 73 de Mike KB3EIA -

perfect example. a large scale dry example of colliding dust particles
building an electric field, without need for them hitting a metalic
conductor. dust particles pick up charge by bouncing off each other and the
ground, there can actually be quite a high electric field built up.

3905. Re: Wide bandwidth ladder line J-pole for 6-Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 00:59:27 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <Ts-dndx_b-BRkBPZnZ2dnUVZ_oydnZ2d@comcast.com>
Source record: 57997

Today I clipped out the connection I had made at the bottom of the radiator, and the SWR bandwidth remained 2MHz as is was with the connection. The group of SWR measurements moved up an average of 150 KHz from my readings with the connection, but otherwise the performance of the "Slim Jim" configuration is identical. The length of the gap may now serve as a tuning mechanism, which wasn't a feature with the bottom connection, and the archives show some builders made good use of that facility. Thanks for spotting the similarity, Jeff. My 6M antenna will no doubt be better for it.

73,

Chuck

"Jeff" <jeff@local.host> wrote in message news:e6j3h7ncu1@nntp.aioe.org...
> Have you not just re-invented the 'Slim Jim'??
>
> 73
> Jeff
>
> "Chuck Olson" <chuckolson01@REMOVETHIScomcast.net> wrote in message
> news:5ZWdnbe8ZP27NBHZnZ2dnUVZ_vudnZ2d@comcast.com...
> > I've been working on a ladder line J-Pole design for 6m, but have had
very
> > little luck until today. The problem has been critical tuning and narrow
> > SWR
> > bandwidth. The improvement came today when I implemented an idea I had
> > concerning the severed piece of wire that "just goes along for the ride"
> > in
> > the ladder line after cutting the 1/4" gap for the 1/4-wave shorted
stub.
> > I
> > figured that many successful 50 MHz J-Poles are made from copper tubing
> > because the thicker elements give it good bandwidth. My idea was to make
> > use
> > of the extra wire and connect it at top and at the gap to the radiator
> > side,
> > making the half-wave radiator act as a much thicker element. My 2:1
> > bandwidth went from 300 KHz to 2 MHz.
> >
> > The resulting antenna design is very straightforward, using the Velocity
> > Factor of 0.91 for the 1/4-wave stub and 0.95 for the radiator. This
> > essentially sets the radiator length equal to the standard 468/F dipole
> > length. If you analyze the operation of the very successful "Open Stub
> > J-Pole" that Arrow makes, you will find they use the 0.95 FV for both
the

> > radiator and the stub, which is appropriate in their open design. So
that
> > pointed me in that direction as far as cutting lengths are concerned.
The
> > only remaining question was the location of the feed tap for 50-ohm
cable.
> > I
> > used alligator clips on the coax to find the best position, and that
> > turned
> > out to be 4 3/8" up from the shorted bottom end, with the shield going
to
> > the gap side. My rig sees a 1:1 SWR from 50.0 to 51.2 MHz, and it gets
to
> > 1.6:1 at 52.1 MHz. With this information, it should be easy to design
one
> > that takes full advantage of the antenna's bandwidth to provide
operation
> > over the widest segment of the 6M band.
> >
> > My intuition told me that there should be some advantage to using
450-ohm
> > ladder line compared to 300-ohm twinlead. Maybe this extra bandwidth is
> > it.
> >
> > 73,
> >
> > Chuck, W6PKP
> >
> >
>
>

3906. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 02:14:14 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <R62dnTIyPa_ughPZnZ2dnUVZ_sydnZ2d@adelphia.com>
Source record: 57998
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc

Telamon wrote:
> In article <q2kjg.114248$dW3.26422@newssvr21.news.prodigy.com>,
> Cecil Moore <mycall@hotmail.com> wrote:
>
>
>>David G. Nagel wrote:
>>
>>>How about IDEA pronounced "IDEer"
>>
>>Y'all from Boston?
>
>
> No.
>
> How about dropping rec.radio.shorwave from the thread.

Why are you posting in re.radio.amateur.antenna, Telemon?

- 73 de Mike KB3EIA -

3907. Re: hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 02:19:01 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <448e2070$0$16391$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57999

W8JI,

thanks for your comments. i must have missed that cebik article, so i will read it.

now i reread the antenna section of ON4UN's book, and he does say 5/8 wave are best for very poor or very good (saltwater) ground. so i am probably wasting my time with 5/8 waves, although i will try it for the hell of it.

i bet ON4UN used a 5/8 on 40 because he needed the length for 160 and 80 in the multiband vertical.

hmm.

Gravity

3908. Re: hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 02:21:19 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <448e20fa$0$16322$892e7fe2@authen.yellow.readfreenews.net>
Source record: 58000

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:mhhjg.23801$VE1.12511@newssvr14.news.prodigy.com...

> Or how about a 10m rotatable EDZ? No radials required.

this is a good idea. cebik site has some articles about EDZ beams and
colinears and arrays.

i should probably go with a 4 element 10 meter Yagi, but i want to
experiment with some alternatives.

Gravity

3909. Re: hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 02:21:53 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <448e211c$0$16324$892e7fe2@authen.yellow.readfreenews.net>
Source record: 58001

"Bob Bob" <bob3bob3@cox.net> wrote in message
news:bqc0m3-6jq.ln1@p400bob.personal.cox.net...
> 4NEC2?
>
> http://home.ict.nl/~arivoors/Home.htm

thanks Bob. that looks like it may do the trick.

Gravity

3910. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 02:22:12 UTC
From: howard@hisisp.com
Message-ID: <578s82da5ulf6f0d41hs3vrvu1rnsveqk0@4ax.com>
Source record: 58003

On Mon, 12 Jun 2006 18:59:13 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Tom Donaly wrote:
>
>> Cecil Moore wrote:
>>> A's in words like, "amen", are pronounced "ah".
>
>> Not where I come from.
>
>I know hillbillies still use the long 'A'. :-)
>Did you know that when Jesus prayed to God in
>Aramaic, he probably prayed to "Allah"?

Yes on Aramaic, however Jesus prayed to the same G-d as the Jews of
that time did.....albeit in a somewhat different fashion.

3911. Re: hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 02:22:20 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <448e2137$0$79450$892e7fe2@authen.yellow.readfreenews.net>
Source record: 58002

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:ifhjg.23800$VE1.2929@newssvr14.news.prodigy.com...
> gravity wrote:
> > one thing i've been pondering is a vertical colinear. 1/2 wave over 1/2
> > wave. i have not modeled it.
> >
> > is there any free modeling software?
>
> You can use the free demo copy of EZNEC by driving the
> collinear with two sources and varying the phase angle
> between them. Then you can design an appropriate phasing
> network. I don't think the lumped inductive reactance
> available in EZNEC will yield an accurate phase shift
> and the free demo will not handle enough segments to
> model a helical coil.
> --

thanks, that plus the program Bob mentioned may get me started in modeling.

Gravity

> 73, Cecil http://www.qsl.net/w5dxp

3912. Re: I bought a large capacitance hat for my shortwave antenna, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 02:29:37 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <lrmdnbdW-puPvhPZnZ2dnUVZ_rCdnZ2d@comcast.com>
Source record: 58004
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

```
"New Ham" <cq-dx@arrl.net> wrote in message
news:sdoif0sd-sjdfsd-23ikj4rwe@news.arrl.net...
> In article
> <telamon_spamshield-EB2876.12344712062006@newsclstr02.news.prodigy.com>,
> Telamon <telamon_spamshield@pacbell.net.is.invalid> wrote:
>>In article <128rf327u816lb1@corp.supernews.com>,
>> "David G. Nagel" <nagel@core.com> wrote:
>>
>>> Cecil Moore wrote:
>>>
>>> > hayseed wrote:
>>> >
>>> >> Now, everybody, back to work and mind your p's and Qs
>>> >
>>> >
>>
>>How about dropping rec.radio.shortwave from the news group list.
>>
>>Thanks in advance.
>>
>>--
>>Telamon
>>Ventura, California
>
>
> Did I get ripped off?
>

Did you get kissed afterwards??
```

3913. Re: H FIELD ANTENNAS?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 03:15:18 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <a5qjg.147182$F_3.110331@newssvr29.news.prodigy.net>
Source record: 58005

Dave wrote:
> perfect example. a large scale dry example of colliding dust particles
> building an electric field, without need for them hitting a metalic
> conductor. dust particles pick up charge by bouncing off each other and the
> ground, there can actually be quite a high electric field built up.

Is the charge on those dust particles electron based?
When cave men rubbed amber on wool to charge it up,
was that electrons?

One time at a hotel in Odessa, TX, I walked across a
wool carpet with leather shoes, went potty, and drew
a two inch arc. OUCH!
--
73, Cecil http://www.qsl.net/w5dxp

3914. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 04:09:51 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <kUqjg.28783$QP4.20579@fed1read12>
Source record: 58006
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap

"Michael Coslo" <mjc5@psu.edu> wrote in message
news:e6jvip$1a4e$1@f04n12.cac.psu.edu...
> Sal M. Onella wrote:

< snip >
> > I learn new tricks every day. Morse Code isn't one of them.
>
>
> The real issue is probably that HF privileges are probably just not that
> important to you.

< snip >

Thanks for explaining it so clearly. That just makes everything right.

3915. Re: Moxon antenna purchase

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 05:07:00 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150175220.918565.12590@g10g2000cwb.googlegroups.com>
Source record: 58007

http://www.aerialacts.com/index.htm

Is one place that I know of. MaxiMoxon line.

73,
Dan
N3OX

k2jxw@comcast.net wrote:
> Does anyone know where to buy a manufactured 20 Meter Moxon antenna?
> Physical condition precludes building one myself. I know there is a
> commercial 6 Meter version available, but what about 20 M and where to buy
> it?
> Jim
> KC2HOU

3916. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 06:48:48 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fins825cbte12e9cec7o5klv3al77vcguq@4ax.com>
Source record: 58008

On Mon, 12 Jun 2006 23:40:19 GMT, "Jerry Martes"
<j.jmartes@verizon.net> wrote:

> I did measure the impedance across a loop of RG 223 with 4 tubes around
>the outside. The problem I come up with is my ignorance of *whats needed*
>for adequate decoupling of the balanced antenna from the outside of the
>coax.

Hi Jerry,

Just think of the antenna as the "source" and consider its
characteristic Z. Now consider the common mode circuit of the
transmission line and its Z. So often this is an unknown, and if we
were always lucky, it would be a half wave multiple to present a very
high Z indeed. Thus 'twould be the end of the story.

How high is high enough? I offer three values for choking:
3 times antenna Z at a minimum;
5 times is practical;
10 times is lab grade.

So, tell us what those 4 tubes measured?

73's
Richard Clark, KB7QHC

3917. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 07:05:51 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ghos821j3q37jv9kgivtbsiruampi77uv2@4ax.com>
Source record: 58009

On Mon, 12 Jun 2006 23:48:48 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>On Mon, 12 Jun 2006 23:40:19 GMT, "Jerry Martes"
><j.jmartes@verizon.net> wrote:
>
>> I did measure the impedance across a loop of RG 223 with 4 tubes around
>>the outside. The problem I come up with is my ignorance of *whats needed*
>>for adequate decoupling of the balanced antenna from the outside of the
>>coax.
>
>Hi Jerry,
>
>Just think of the antenna as the "source" and consider its
>characteristic Z. Now consider the common mode circuit of the
>transmission line and its Z. So often this is an unknown, and if we

Richard, does Z mean the characteristic impedance of the line in the
"differential" mode or "common" mode?

Owen
--

3918. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 08:37:57 UTC
From: w8ji@akorn.net
Message-ID: <1150187877.341635.61420@c74g2000cwc.googlegroups.com>
Source record: 58010

Cecil Moore wrote:
> When I lived in the Arizona, clear-sky wind-driven charged
> dust particles transferred lots of energy to my bare-wire
> G5RV. It caused arcing whether the outside braid was grounded
> or not. It only happened when the wind was blowing and
> the humidity was very low.

But that effect is common no matter where we live. As I've said several times, a high dipole here for 160m charges enough to knock you on your rear on a calm sunny day if the coacial line is well insulated from ground.

It is not wise tol have a large high antenna that was well-insulated from ground, since the accumulated charge can suddenly discharge through a series capacitor and damage equipment.

Utility companies must ground unused wires that run for miles to prevent build up of charge, so that is not something that just occurs in arid climates.

> Do you agree that a charged particle will transfer energy
> to the bare wire in a dipole when it touches it? If not,
> why not?

Of course it will IF it is at a different potential than the wire.

> If the antenna were link coupled, do you agree that the
> above transferred energy will try to equalize between the
> two dipole elements? If not, why not?

Of course it will.

> Do you agree that the equalizing of the charges between
> elements would cause a current to flow through the link?
> If not, why not?

Of course it will.

I disagree wth your contention that the link, if the noise comes from each particle hitting the antenna, will reduce noise. That's the part that makes no sense.

Maybe you can explain why the link (or folded element) would reduce that noise.

73 Tom

3919. HF antenna for yacht / boat

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 09:13:29 UTC
From: John Laczik <John@laczik.org>
Message-ID: <e6lvjpahc1@news.ox.ac.uk>
Source record: 58011

Any recommendations for a *simple* antenna that can be used
on a yacht/boat to receive ~500 kHz, and to receive/transmit
in the HF amateur and marine bands (1.5 MHz ~ 30 MHz)?

Currently I am thinking about a length of wire between the
stern and the top of the mast, fed via an ATU at the stern
end. I can make the wire ~50' long. What is the optimum
wire length? As long as possible?

Thanks,

John

3920. Re: HF antenna for yacht / boat

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 11:26:34 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1150197385_52775@sp6iad.superfeed.net>
Source record: 58012

Hello John,

The best starting point is probably the
installation guides available at
www.icomamerica.com and www.sgcworld.com.

Those two companies sell ssb radios and automatic
antenna tuners. If your tuner is of a different
make, you might search out information on it.

From there, you can simply do google searches on
any aspects not covered in those manuals.

The ARRL has published a book on marine
installations but I have not seen a copy yet.

Good luck.

Chuck

John Laczik wrote:
> Any recommendations for a *simple* antenna that can be used
> on a yacht/boat to receive ~500 kHz, and to receive/transmit
> in the HF amateur and marine bands (1.5 MHz ~ 30 MHz)?
>
> Currently I am thinking about a length of wire between the
> stern and the top of the mast, fed via an ATU at the stern
> end. I can make the wire ~50' long. What is the optimum
> wire length? As long as possible?
>
> Thanks,
>
> John

----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3921. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 13:32:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <f8zjg.114420$dW3.104618@newssvr21.news.prodigy.com>
Source record: 58013

Richard Clark wrote:
> Just think of the antenna as the "source" and consider its
> characteristic Z.

"Characteristic impedance" is not the impedance associated
with choking requirements. That probably should be
"feedpoint Z" (source Z for receive).

For standing wave antennas the characteristic impedance
and the feedpoint impedance are usually quite different.
For a #14 wire horizontal 1/2 WL dipole at 30 ft., the
characteristic impedance is in the ballpark of 1200 ohms
while the feedpoint impedance is in the ballpark of 60
ohms.
--
73, Cecil http://www.qsl.net/w5dxp

3922. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 13:37:58 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <fnft82h5t33r5o0idne9rjqcmbal1tngt8@4ax.com>
Source record: 58014

On 13 Jun 2006 01:37:57 -0700, w8ji@akorn.net wrote:

>
>Cecil Moore wrote:
>> When I lived in the Arizona, clear-sky wind-driven charged
>> dust particles transferred lots of energy to my bare-wire
>> G5RV. It caused arcing whether the outside braid was grounded
>> or not. It only happened when the wind was blowing and
>> the humidity was very low.
>
>But that effect is common no matter where we live. As I've said several
>times, a high dipole here for 160m charges enough to knock you on your
>rear on a calm sunny day if the coacial line is well insulated from
>ground.
>
>It is not wise tol have a large high antenna that was well-insulated
>from ground, since the accumulated charge can suddenly discharge
>through a series capacitor and damage equipment.

I have a low, 30 feet or so, 80 meter dipole fed with ladderline,
through an mfj 989c tuner. Hot humid clime (Texas). Is the ground wire
on the back of the tuner, going to a ground rod, enough to bleed off
electrical build up?

bob
k5qwg

>
>Utility companies must ground unused wires that run for miles to
>prevent build up of charge, so that is not something that just occurs
>in arid climates.
>
>> Do you agree that a charged particle will transfer energy
>> to the bare wire in a dipole when it touches it? If not,
>> why not?
>
>Of course it will IF it is at a different potential than the wire.
>
>> If the antenna were link coupled, do you agree that the
>> above transferred energy will try to equalize between the
>> two dipole elements? If not, why not?
>
>Of course it will.
>
>> Do you agree that the equalizing of the charges between

>> elements would cause a current to flow through the link?
>> If not, why not?
>
>Of course it will.
>
>I disagree wth your contention that the link, if the noise comes from
>each particle hitting the antenna, will reduce noise. That's the part
>that makes no sense.
>
>Maybe you can explain why the link (or folded element) would reduce
>that noise.
>
>73 Tom

3923. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 14:23:55 UTC
From: w8ji@akorn.net
Message-ID: <1150208635.148471.66710@h76g2000cwa.googlegroups.com>
Source record: 58015

Bob Miller wrote:
>
> I have a low, 30 feet or so, 80 meter dipole fed with ladderline,
> through an mfj 989c tuner. Hot humid clime (Texas). Is the ground wire
> on the back of the tuner, going to a ground rod, enough to bleed off
> electrical build up?

Almost anything is enough to do that. The charge rate is extremely low.

My 318 foot tall insulated tower had a measured charge rate in the
ten's of milliamperes as measured during approaching thunderstorms.

Of course taking care of a lightning bolt or EMP from a lightning
strike someplace around the area is another story.

73 Tom

3924. Re: HF antenna for yacht / boat

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 15:01:48 UTC
From: "k2jxw@comcast.net" <lighthouse@arlhs.net>
Message-ID: <f7idnRWOsKvCThPZnZ2dnUVZ_u2dnZ2d@comcast.com>
Source record: 58016

I did much the same thing but used a dipole "V" configuration with the apex
at the tip of the bow and each leg going to opposite sides of the flybridge.
Overall length was 32 feet.
I used an SGC-30 tuner and was able to load on all bands from 160-10. I
used the stainless steel railing all around the boat as the ground and it
seemed to work well. Lots of DX on 20M, including England with 5 watts
using a Yaesu FT-817.

This arrangement worked but the legs of the dipole going down to the bow
caused deckhands to get tangled feet when we were docking etc; so I scrapped
this system the next year in favor of the Shakespeare 23-ft marine whip with
the SGC tuner. Worked much better.

Good luck
Jim
K2JXW
Aboard the "Sandy Claws"
Chesapeake Bay, MD

==========

"John Laczik" <John@laczik.org> wrote in message
news:e6lvjpahc1@news.ox.ac.uk...
> Any recommendations for a *simple* antenna that can be used
> on a yacht/boat to receive ~500 kHz, and to receive/transmit
> in the HF amateur and marine bands (1.5 MHz ~ 30 MHz)?
>
> Currently I am thinking about a length of wire between the
> stern and the top of the mast, fed via an ATU at the stern
> end. I can make the wire ~50' long. What is the optimum
> wire length? As long as possible?
>
> Thanks,
>
> John

3925. Re: tri-band HF beam for portable ops ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 15:04:12 UTC
From: "k2jxw@comcast.net" <lighthouse@arlhs.net>
Message-ID: <fbudnTG4eth2ThPZnZ2dnUVZ_uidnZ2d@comcast.com>
Source record: 58017

Most of our Amateur Radio Lighthouse Society guys, who regularly set up
portable at remote lighthouses, etc, favor the Buddipole -- see ads in QST
http://arlhs.com
Jim
K2JXW
==========

<Thierry> wrote in message news:448df40f$1@news.vo.lu...
> Hi,
>
> I am interested in buying a triband yagi (20-15-10) for portable
> operations
> But I suspect such antennas, most being made of aluminium, to be heay
> (over 10 kg) and maybe not easy to dismantle regularly
> I review on my webiste various portable configurations, so I know quite
> well the problem.
>
> I would like to know if some of you have testes successfully such
> installations using the minimum of hardware (transportation using an
> ordinary car, not a break, not a pickup and not a 4x4, installation by
> only one person, small beam placed on a single pod 8-10m high, one
> guy-wire, no rotator) for a on-day activity, the Tx working on battery.
>
> If you work in the field with a small beam, what difficilty do you
> experimented (weght, wingspan, other)?
>
> Thanks
>
> Thierry
> ON4SKY, LX4SKY
> http://www.astrosurf.org/lombry/menu-qsl.htm
>
>
>

3926. Re: Moxon antenna purchase

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 15:05:43 UTC
From: "k2jxw@comcast.net" <lighthouse@arlhs.net>
Message-ID: <65udnSjbaofbSRPZnZ2dneKdnZydnZ2d@comcast.com>
Source record: 58018

Tnx -- Very helpful
Jim
K2JXW

<n3ox.dan@gmail.com> wrote in message
news:1150175220.918565.12590@g10g2000cwb.googlegroups.com...
> http://www.aerialacts.com/index.htm
>
> Is one place that I know of. MaxiMoxon line.
>
> 73,
> Dan
> N3OX
>
> k2jxw@comcast.net wrote:
>> Does anyone know where to buy a manufactured 20 Meter Moxon antenna?
>> Physical condition precludes building one myself. I know there is a
>> commercial 6 Meter version available, but what about 20 M and where to
>> buy
>> it?
>> Jim
>> KC2HOU
>

3927. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 15:29:38 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <CRAjg.45622$4L1.42924@newssvr11.news.prodigy.com>
Source record: 58019

w8ji@akorn.net wrote:
> Cecil Moore wrote:
>> When I lived in the Arizona, clear-sky wind-driven charged
>> dust particles transferred lots of energy to my bare-wire
>> G5RV. It caused arcing whether the outside braid was grounded
>> or not. It only happened when the wind was blowing and
>> the humidity was very low.
>
> But that effect is common no matter where we live. As I've said several
> times, a high dipole here for 160m charges enough to knock you on your
> rear on a calm sunny day if the coaxial line is well insulated from
> ground.

During the "H Field Antennas" thread, you said the following:
****
> Reg Edwards wrote:
>> Precipitation static, eg., from highly charged raindrops and fine snow
>> or fine sand, impinging on the antenna wire, just causes an increase
>> in receiver white noise level. It can be reduced but not removed by
>> using a very thickly insulated antenna wire, like the inner conductor
>> of a coaxial cable complete with its polyethylene jacket.
>> ----
>> Reg.

W8JI replied:
> I've never seen a case of precitation static occuring that way.
>
> In every single case I've seen, whether on tall buildings, tall towers,
> or antenna hear earth, it has always been corona discharges from the
> antenna or objects near the antenna. ... 73 Tom

****

I have only noticed the charged particle arcing in Arizona when
the wind was blowing and that is what I am reporting.

> It is not wise to have a large high antenna that was well-insulated
> from ground, since the accumulated charge can suddenly discharge
> through a series capacitor and damage equipment.

Where does the accumulated charge come from if not from charged
particles? If the antenna is link coupled, the charge equalizes
between the two dipole elements and, in my experience, doesn't
arc.

>> Do you agree that a charged particle will transfer energy
>> to the bare wire in a dipole when it touches it? If not,
>> why not?
>
> Of course it will IF it is at a different potential than the wire.
>
>> If the antenna were link coupled, do you agree that the
>> above transferred energy will try to equalize between the
>> two dipole elements? If not, why not?
>
> Of course it will.
>
>> Do you agree that the equalizing of the charges between
>> elements would cause a current to flow through the link?
>> If not, why not?
>
> Of course it will.

Seems we are in agreement that charged particle RF noise can
therefore be picked up by a receiver as Reg says above. It is
only logical that it will be worse when the wind blows causing
more charged particles to encounter the antenna wire. And,
as shown below, it is only logical that a folded dipole would
transfer less of that noise to the link than a non-folded dipole.

> I disagree with your contention that the link, if the noise comes from
> each particle hitting the antenna, will reduce noise. That's the part
> that makes no sense.

In my experience, it eliminated the arcing. Thus it eliminated
the *AURAL* arcing noise that my ears were hearing. Why does that
make no sense? I was very clear that my receiver was off and
disconnected at the time and that I made no RF noise measurements.
A short, or 4:1 voltage balun, or choke, or link across the
connector eliminated the *AURAL* arcing noise.

> Maybe you can explain why the link (or folded element) would reduce
> that noise.

Seems you confused my statements about aural noise with RF
noise. I have previously said I didn't measure the RF noise.

In any case, please see the pictures below to understand why
a folded element redirects the charge equalization process
away from the link.

The process of equalizing the charge on the non-folded dipole
elements causes RF noise across the link which is picked up by
the S-meter on the receiver. I observed that many times in AZ
and wish I had made some measurements. The S-meter reports a
higher level of charged particle noise during high wind
conditions and dry-air snowstorms.

Please explain what it is about the following that you don't understand.

1. The equalizing of the element charges on a link coupled dipole will cause a current to flow through the link resulting in higher RF noise readings on the S-meter during high wind conditions when more charged particles are encountering the antenna wire.

2. Turning the dipole into a folded dipole (or loop) gives a preferred localized path for the equalization of the charge. Not nearly as much RF noise current flows through the remote link.

Maybe a picture would help. Here's a non-folded dipole with a charge hitting it. In order to equalize charge with the other element, part of the charge must flow down the transmission line, through the link, and back up the transmission line to the other dipole element. Virtually all of the pulsed charge equalization process goes through the link.

```
---------CH----+ +---------------
| |
/ /
| |
link
```

****

```
+--------------------------------+
+--------CH----+ +---------------+
| |
/ /
| |
link
```

Here's a folded dipole with a charge hitting it in the same relative place. What is the most efficient preferred path for equalizing the charge with the other element? Not down the transmission line and through the link but simply straight through the antenna wire. Hint: Charge would rather take the 50 foot path of least resistance than a 200 foot path of most resistance.

Eureka! The folded dipole is less noisy during high wind conditions than is the non-folded dipole because most of the charge equalization takes place locally through the antenna wire and not remotely through the link.

BTW, thanks for forcing me to think this through in detail.
--
73, Cecil http://www.qsl.net/w5dxp

3928. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 15:36:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hYAjg.45629$4L1.11577@newssvr11.news.prodigy.com>
Source record: 58020

Bob Miller wrote:
> I have a low, 30 feet or so, 80 meter dipole fed with ladderline,
> through an mfj 989c tuner. Hot humid clime (Texas). Is the ground wire
> on the back of the tuner, going to a ground rod, enough to bleed off
> electrical build up?

If there is a DC path to ground from *BOTH* sides of the
dipole, the answer is yes. But, looking at the 989c
schematic, I don't see a DC path to ground from one of
the balanced line outputs.
--
73, Cecil http://www.qsl.net/w5dxp

3929. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 15:43:29 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <B2Bjg.45634$4L1.1101@newssvr11.news.prodigy.com>
Source record: 58021

Cecil Moore wrote:
> Bob Miller wrote:
>> I have a low, 30 feet or so, 80 meter dipole fed with ladderline,
>> through an mfj 989c tuner. Hot humid clime (Texas). Is the ground wire
>> on the back of the tuner, going to a ground rod, enough to bleed off
>> electrical build up?
>
> If there is a DC path to ground from *BOTH* sides of the
> dipole, the answer is yes. But, looking at the 989c
> schematic, I don't see a DC path to ground from one of
> the balanced line outputs.

I forgot to say that your high humidity probably provides
a path to ground from the other tuner terminal. It was
only during super low humidity conditions in the Arizona
desert that I experienced the arcing process during
high winds.
--
73, Cecil http://www.qsl.net/w5dxp

3930. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 15:58:00 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <cgBjg.12139$OL2.52@trnddc06>
Source record: 58022

"Richard Clark" <kb7qhc@comcast.net> wrote in message
news:fins825cbte12e9cec7o5klv3al77vcguq@4ax.com...
> On Mon, 12 Jun 2006 23:40:19 GMT, "Jerry Martes"
> <j.jmartes@verizon.net> wrote:
>
>> I did measure the impedance across a loop of RG 223 with 4 tubes around
>>the outside. The problem I come up with is my ignorance of *whats
>>needed*
>>for adequate decoupling of the balanced antenna from the outside of the
>>coax.
>
> Hi Jerry,
>
> Just think of the antenna as the "source" and consider its
> characteristic Z. Now consider the common mode circuit of the
> transmission line and its Z. So often this is an unknown, and if we
> were always lucky, it would be a half wave multiple to present a very
> high Z indeed. Thus 'twould be the end of the story.
>
> How high is high enough? I offer three values for choking:
> 3 times antenna Z at a minimum;
> 5 times is practical;
> 10 times is lab grade.
>
> So, tell us what those 4 tubes measured?
>
> 73's
> Richard Clark, KB7QHC

Hi Richard

I have been thinking of the "string of ferrites" as a method of presenting
a high impedance to Conducted currents along the outside of the coax from
the antenna down to the radio. It is clear that a "high impedance" may
actually couple well to the outside of the coax if the length of coax is
some special length that presents a high impedance up to where the choke is
located,
I think I could have saved time if I'd asked you more questions when I was
doing the work of learning about baluns.

I didnt keep any of the data I recorded with any of the coils and
ferrites. It is easy to measure the Z of any high impedance circuit so I
could easily measure choke impedance at 2 meters.

Jerry

3931. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 16:00:36 UTC
From: w8ji@akorn.net
Message-ID: <1150214436.872296.89110@i40g2000cwc.googlegroups.com>
Source record: 58023

Cecil Moore wrote:
> w8ji@akorn.net wrote:
> > Cecil Moore wrote:
> >> When I lived in the Arizona, clear-sky wind-driven charged
> >> dust particles transferred lots of energy to my bare-wire
> >> G5RV. It caused arcing whether the outside braid was grounded
> >> or not. It only happened when the wind was blowing and
> >> the humidity was very low.
> >
> > But that effect is common no matter where we live. As I've said several
> > times, a high dipole here for 160m charges enough to knock you on your
> > rear on a calm sunny day if the coaxial line is well insulated from
> > ground.

In the text above I was responding to the charging and arcing from a
floating antenna, NOT to the mechanism Reg was talking about below. I
have NO problem with the wire charging and arcing. But I've NEVER seen
a situation where particles directly hitting the antenna make noise,
which is what Reg was talking about below....

> During the "H Field Antennas" thread, you said the following:
> **
> > Reg Edwards wrote:
> >> Precipitation static, eg., from highly charged raindrops and fine snow
> >> or fine sand, impinging on the antenna wire, just causes an increase
> >> in receiver white noise level. It can be reduced but not removed by
> >> using a very thickly insulated antenna wire, like the inner conductor
> >> of a coaxial cable complete with its polyethylene jacket.
> >> ----
> >> Reg.
>
> W8JI replied:
> > I've never seen a case of precitation static occuring that way.
> >
> > In every single case I've seen, whether on tall buildings, tall towers,
> > or antenna hear earth, it has always been corona discharges from the
> > antenna or objects near the antenna. ... 73 Tom
>
> **
>
> I have only noticed the charged particle arcing in Arizona when
> the wind was blowing and that is what I am reporting.
>
> > It is not wise to have a large high antenna that was well-insulated
> > from ground, since the accumulated charge can suddenly discharge

> > through a series capacitor and damage equipment.
>
> Where does the accumulated charge come from if not from charged
> particles? If the antenna is link coupled, the charge equalizes
> between the two dipole elements and, in my experience, doesn't
> arc.

Why do you think it is the particle that make noise or even that they are necessary?

Allowing what you say is true, then you are arguing against yourself. As I understand it:

1.) You say the particles make the noise as each individual particle hits the antenna.

2.) You say grounding the antenna eliminates that noise.

There is an obvious conflict in those two ideas. Grounding the element for DC will not reduce the rate the rate of energy transfer to the antenna from particle, it can only INCREASE it by preventing long-term charging of the antenna closer to the potential of the particles.

73 Tom

3932. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 16:06:46 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <2cot82dpgpl61diuobmjka31ufjqurtdn5@4ax.com>
Source record: 58024

On Tue, 13 Jun 2006 15:43:29 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Cecil Moore wrote:
>> Bob Miller wrote:
>>> I have a low, 30 feet or so, 80 meter dipole fed with ladderline,
>>> through an mfj 989c tuner. Hot humid clime (Texas). Is the ground wire
>>> on the back of the tuner, going to a ground rod, enough to bleed off
>>> electrical build up?
>>
>> If there is a DC path to ground from *BOTH* sides of the
>> dipole, the answer is yes. But, looking at the 989c
>> schematic, I don't see a DC path to ground from one of
>> the balanced line outputs.
>
>I forgot to say that your high humidity probably provides
>a path to ground from the other tuner terminal. It was
>only during super low humidity conditions in the Arizona
>desert that I experienced the arcing process during
>high winds.

I can't recall seeing any gap-sparking here in the San Antonio area.
When it's hot, it's usually pretty humid, too.

bob
k5qwg

3933. Re: hey W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 16:27:05 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <448ee692_1@newsfeed.slurp.net>
Source record: 58025

<w8ji@akorn.net>
> As a matter of fact AM BC stations, despite their large ground
> systems, abandoned the 5/8th wave many years ago. They
> found in the real world use of 5/8th waves instead of extending
> coverage they reduced coverage.

The h-plane inverse field of a 5/8-wave AM BC vertical working against 120 buried radials each at least 1/4-wave long is calculated in theory and measured in practice as having the greatest possible field per unit of radiated power of any non-sectionalized radiator height, no matter what the earth conductivity at the antenna site.

But the 5/8 wave BC vertical does have a discrete, high angle sidelobe that, at night, can interfere with its own groundwave over an annular zone starting a few hundred miles from the antenna. Very distant coverage is provided by low-angle skywave (less than about 30 degrees), and is not affected because the groundwave is gone at those distance ranges.

But this is the reason that 24-hr, 50 kW AM BC stations use a radiator typically around 195 degrees. Its h-plane inverse field (the groundwave) is not quite as great as from a 5/8-wave, but it doesn't develop that high-angle lobe. It is popularly called an "antifade" radiator.

RF (WJR staff engineer, 1960s)

3934. FS: SMA Cable Assemblies, $9.90 each, made in USA

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 16:29:35 UTC
From: AAA RF Products <sales@aaarfproducts.com>
Message-ID: <rJBjg.7953$rS6.3286@fed1read11>
Source record: 58126
Cross-posted to:
misc.industry.electronics.marketplace,rec.boats.electronics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors

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San Clemente, CA 92673

3935. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 16:29:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <QJBjg.45657$4L1.13033@newssvr11.news.prodigy.com>
Source record: 58127

w8ji@akorn.net wrote:

Why didn't you respond to the pictures I drew for you?

> 1.) You say the particles make the noise as each individual particle
> hits the antenna.

Yes, and you have agreed with all the steps leading up to that
noise pulse flowing through the link. It is just simple physics.
I notice you are not responding to any of the technical content
of my posting are are continuing to deliberately obfuscate
something I said earlier about aural arcing noise.

> 2.) You say grounding the antenna eliminates that noise.

Grounding the antenna eliminated the ***AURAL*** arcing noise
that was keeping me awake at night and scorching my rug when
the transceiver was powered down and disconnected from the
antenna. How many times do I have to explain that to you?

But I have no doubt that if the transceiver had been turned
on, the arcing across the transceiver connector would have
caused RF noise if not failure. And I also have no doubt that
grounding both transmission line conductors would have
eliminated the arcing and thus reduced the RF noise heard
by the receiver.

Your style of argument is making you look stupid.

> There is an obvious conflict in those two ideas.

Only in your mind, Tom. Please cease and desist with the
obfuscation and try to follow your own advice from another
newsgroup where you said nobody knows everything (presumably
including you) and everyone is capable of learning something
new (presumably including you). It's past time for you to
learn about dry-air wind-driven charged-particle noise.

Quantum Electrodynamics will tell you that even corona noise
is caused by charged particles.
--
73, Cecil http://www.qsl.net/w5dxp

3936. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 16:31:38 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <KLBjg.45658$4L1.34081@newssvr11.news.prodigy.com>
Source record: 58128

Bob Miller wrote:
> I can't recall seeing any gap-sparking here in the San Antonio area.
> When it's hot, it's usually pretty humid, too.

If you have an o'scope, please hang it across the
transmission line wires during your next dust storm
and report the results compared to a calm day.
--
73, Cecil http://www.qsl.net/w5dxp

3937. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 16:51:43 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <evpt82pok8qe1m0ef6sbgosec3f813sqfv@4ax.com>
Source record: 58129

On Tue, 13 Jun 2006 07:05:51 GMT, Owen Duffy <owen@no.where> wrote:
>>Just think of the antenna as the "source" and consider its
>>characteristic Z. Now consider the common mode circuit of the
>>transmission line and its Z. So often this is an unknown, and if we
>
>Richard, does Z mean the characteristic impedance of the line in the
>"differential" mode or "common" mode?

Hi Owen,

The Common mode. The remainder of this discussion will undoubted be known to you, so it is largely meant for our otherwise silent original poster, Kevin. The ferrites will be more or less transparent to the differential mode when the ferrites wrap around both conductors for twin lead, or around the coaxial cable.

As this discussion has been largely coaxial based, the outer conductive surface of the coax is the primary imbalance to a dipole through its "third wire" connection at the dipole feed point. It appears as one of three wires to the abstract source established at that feed point and it presents an ad-hoc Z load. The value of this load is rarely determined, except when one deliberately attempts to make their feed line 1/2 wave long (or some multiple). Of course, that means 1/2 wave for the velocity factor of the outside conductive path of the coax. This is often accomplished through cut and try rather than modeling or measuring currents, but these too would be good first pass approximations.

However, it is simpler to add ferrites as their Z is well known and rarely subject to externalities. They also allow for multiband operation. They are simple to apply. If you aren't using hi power, they are "set and forget."

In closing, it bears mentioning that this treatment should be repeated a quarterwave down the coax and away from the drive point. This, in effect, enforces a one band solution by its description, so choose the band that counts the most. I would expect it would improve other bands to some degree. I've simply distributed the same number of ferrites over a 20 foot length of coax as the second treatment instead of repeating the same lumped isolation. I cannot vouch for this method's effectivity in maintaining a null pattern in the lobes of the dipole as I never confirmed that.

73's
Richard Clark, KB7QHC

3938. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 16:53:11 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kart82tdqiib8hrj4tegavjl8d5dcojmbc@4ax.com>
Source record: 58130

On Tue, 13 Jun 2006 15:58:00 GMT, "Jerry Martes"
<j.jmartes@verizon.net> wrote:

> I have been thinking of the "string of ferrites" as a method of presenting
>a high impedance to Conducted currents along the outside of the coax from
>the antenna down to the radio.

Hi Jerry,

This may be what I've already described at the end of my response to
Owen.

73's
Richard Clark, KB7QHC

3939. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 17:06:08 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <fert82tb0hu58jr3m1omug1r9s52o82vge@4ax.com>
Source record: 58131

On Tue, 13 Jun 2006 07:05:51 GMT, Owen Duffy <owen@no.where> wrote:
>>Just think of the antenna as the "source" and consider its
>>characteristic Z. Now consider the common mode circuit of the
>>transmission line and its Z. So often this is an unknown, and if we
>
>Richard, does Z mean the characteristic impedance of the line in the
>"differential" mode or "common" mode?

Hi Owen,

It occurred to me that there are two Zs mentioned and you did not really differentiate as I had.

The antenna Z will be something we all have expectations of attaining, and we quite often measure it. For the dipole we merely assign a value of 70 Ohms for this discussion.

Now, we have the Z of the "third wire" which is almost never measured, especially for every application. If it presented an equal 70 Ohms, it would then hog half the power - however, this is unlikely in the scheme of things. Let us just say it will exhibit some value that may tend to absorb and radiate power. This capacity both upsets antenna patterns and contributes to RFI and feed line radiation.

If the source is 70 Ohms and we add 200 to 700 Ohms of resistivity in line (through the application of ferrites as common mode series resistances), then we have diminished its capacity to hog power. As 1000 Ohms of ferrite resistance is easily applied, this has generally satisfied many conditions.

73's
Richard Clark, KB7QHC

3940. Re: Question about Bode's book Ch V P 81

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 17:37:19 UTC
From: EE123 <onyx49@juno.com>
Message-ID: <1150220239.495844.165890@p79g2000cwp.googlegroups.com>
Source record: 58132

RR67 wrote:
> Hello ,
>
> I am reading the Bode's book network analysis ...
> I have a problem to understand the result (5-30) Page 81, could anyone
> tell me why the transmission from input to grid of tube is not a
> admittance. on contrary, bode multiply the two transmission by two
> impedance Z2 andZ4. this makes the two transmission become
> dimentionless (but from bode's definition , transmission is transfer
> admittance for mesh equations)
> . the final result for the fractionated gain has unit of ohm square.

Are you talking about the book by Bode
written in the 1920's? The same Bode that gave
us "the Bode plot" which is used for
system stability analysis?
Where can a copy be obtained?

Dave

3941. Re: FS: SMA Cable Assemblies, $9.90 each, made in USA

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 18:12:05 UTC
From: Larry <noone@home.com>
Message-ID: <Xns97E19089229F3noonehomecom@208.49.80.253>
Source record: 58133
Cross-posted to:
misc.industry.electronics.marketplace,rec.boats.electronics,rec.radio.amateur.antenna,rec.radio.amateur.boatanchors

More spam on here every week....(sigh)

Don't forget to send Cox Abuse the header:

From: "AAA RF Products" <sales@aaarfproducts.com>
Newsgroups:
misc.industry.electronics.marketplace,rec.boats.electronics,rec.radio.ama
teur.antenna,rec.radio.amateur.boatanchors
Subject: FS: SMA Cable Assemblies, $9.90 each, made in USA
Lines: 19
X-Priority: 3
X-MSMail-Priority: Normal
X-Newsreader: Microsoft Outlook Express 6.00.2900.2869
X-MimeOLE: Produced By Microsoft MimeOLE V6.00.2900.2869
X-RFC2646: Format=Flowed; Original
Message-ID: <rJBjg.7953$rS6.3286@fed1read11>
Date: Tue, 13 Jun 2006 09:29:35 -0700
NNTP-Posting-Host: 64.58.167.76
X-Complaints-To: abuse@cox.net
X-Trace: fed1read11 1150216151 64.58.167.76 (Tue, 13 Jun 2006 12:29:11
EDT)
NNTP-Posting-Date: Tue, 13 Jun 2006 12:29:11 EDT
Organization: Cox Communications
Xref: usenetserver.com misc.industry.electronics.marketplace:126904
rec.boats.electronics:160756 rec.radio.amateur.antenna:326959
rec.radio.amateur.boatanchors:215070

"AAA RF Products" <sales@aaarfproducts.com> wrote in news:rJBjg.7953
$rS6.3286@fed1read11:

> Any 10 SMA Male to SMA Male cable assemblies for $99.00
>
> RG-58C/U or RG-223/U
>
> Mix & match any 10
>
> Length available: 12", 18", 24", 30", 36", 48", 60", 72", 84", & 96"
>
> High quality & made in USA
>
> Please email sales@AAARFProducts.com
>
> or call 949 481 3154 (San Clemente, CA, USA)
>

> AAA RF Products
> 946 Calle Amanecer, suite E
> San Clemente, CA 92673
>
>
>

3942. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 18:21:56 UTC
From: w8ji@akorn.net
Message-ID: <1150222915.966151.269300@c74g2000cwc.googlegroups.com>
Source record: 58134

> Why didn't you respond to the pictures I drew for you?

Because you have unlimited time to go off into hunderds of a tangents.
I still work 50-60 hours a week.

> > 1.) You say the particles make the noise as each individual particle
> > hits the antenna.
>
> Yes, and you have agreed with all the steps leading up to that
> noise pulse flowing through the link. It is just simple physics.
> I notice you are not responding to any of the technical content
> of my posting are are continuing to deliberately obfuscate
> something I said earlier about aural arcing noise.

I must have missed it. With any AURAL noise there is alos a spark, and
that spark is accompanied by electrical noise or component damage.

My understanding was you said the HF noise in the receiver was caused
by the random particles actually striking the antenna. If so, grounding
makes no difference.

> > 2.) You say grounding the antenna eliminates that noise.
>
> Grounding the antenna eliminated the ***AURAL*** arcing noise
> that was keeping me awake at night and scorching my rug when
> the transceiver was powered down and disconnected from the
> antenna. How many times do I have to explain that to you?

Along with any aural noise is an arc, along with any arc is electrical
noise. None of that matters however. As I understand it you said the HF
noise was from particles hitting the antenna. If so, grounding the
antenna could only increase the voltage delta between the particles and
the antenna.

If you disagree, explain why.

> But I have no doubt that if the transceiver had been turned
> on, the arcing across the transceiver connector would have
> caused RF noise if not failure. And I also have no doubt that
> grounding both transmission line conductors would have
> eliminated the arcing and thus reduced the RF noise heard
> by the receiver.

If the noise was a slow popping noise caused by a series component
breaking down, I agree. If the noise was what is commonly reffered to
as P-static, the sizzling hissing or whining noise with almost a
musical note, I disagree.

> Your style of argument is making you look stupid.

Calling people stupid makes you look like you cannot have a mature discussion. Why not act mature?

73 Tom

3943. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 18:56:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hTDjg.24031$VE1.20801@newssvr14.news.prodigy.com>
Source record: 58135

w8ji@akorn.net wrote:
> I must have missed it.

:-) Sure you did even after I said it half a dozen times. :-)
You have talked about my transmission line laying on the
rug scorching it so you could not possibly have "missed it".

> With any AURAL noise there is always a spark, and
> that spark is accompanied by electrical noise or component damage.

Yes, I have said *many* times that my transceiver's power was
off and it was unplugged from the transmission line. You know
the transmission line was laying on my rug because you have
talked about that before.

> My understanding was you said the HF noise in the receiver was caused
> by the random particles actually striking the antenna. If so, grounding
> makes no difference.

I agree and never said otherwise. However, since you
insist, below I indicate how grounding would have made
a difference had I responded in a different way.

> If you disagree, explain why.

Let's say that I was stupid enough not to disconnect my
transceiver when I heard the arcing at the coax input and
instead turned the transceiver on. Let's say it didn't
suffer failure.

Would you agree that I would hear RF noise in the transceiver
every time the coax connector arced?

Would you agree that if I shorted the center conductor to
ground that since the outer conductor was already grounded,
the RF noise in the transceiver would decrease?

> Why not act mature?

It was you who once again regressed to your terrible-twos
infantile omniscient stage and just couldn't resist
misquoting me. Please don't do that again.
--
73, Cecil http://www.qsl.net/w5dxp

3944. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 19:07:26 UTC
From: jawod <jawod@fuse.net>
Message-ID: <448F0CEE.4020502@fuse.net>
Source record: 58136

Perhaps I'm not pedantic enough to enjoy the courtesy of your reply. If your rug is scorched...how much current is there?

My simple question was: Is this a novel way to create a trickle charger? (When TCVR is d/c'd, of course)

Anyone care to respond?

Otherwise, I'll just lurk and observe the "drama" between you two.

John
AB8WH

3945. Re: Wide bandwidth ladder line J-pole for 6-Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 19:09:55 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6n2i3$pf0$1@avnika.corp.mot.com>
Source record: 58137

"Chuck Olson" <chuckolson01@REMOVETHIScomcast.net> wrote in message
news:Ts-dndx_b-BRkBPZnZ2dnUVZ_oydnZ2d@comcast.com...
> Today I clipped out the connection I had made at the bottom of the
radiator,
> and the SWR bandwidth remained 2MHz as is was with the connection. The
group
> of SWR measurements moved up an average of 150 KHz from my readings with
the
> connection, but otherwise the performance of the "Slim Jim" configuration
is
> identical. The length of the gap may now serve as a tuning mechanism,
which
> wasn't a feature with the bottom connection, and the archives show some
> builders made good use of that facility. Thanks for spotting the
similarity,
> Jeff. My 6M antenna will no doubt be better for it.
> 73, Chuck

Chuck,
I searched on Slim-Jim. Let me see if I understand correctly.
Slim-Jim is a twin-lead or ladder-line type J antenna with the *top* of the
half-wave 9dual conductor) radiator ends connected.
Yours has the bottom of the 1/2 wave ends connected.
Am I to understand that the Slim-Jim configuration and yours have very
similar SWR BW?
This is good to know.

Then I'd like clarification on your comment:
"... If you analyze the operation of the very successful "Open Stub
> J-Pole" that Arrow makes, you will find they use the 0.95 FV for both the
> radiator and the stub,..."

Can you be more specific about this. What is the electrical length of the
stub for said analysis? I like that design, though there is controversy
about it.

73, Steve, K9DCi

3946. Re: measurements at the antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 19:37:17 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6n45e$pk3$1@avnika.corp.mot.com>
Source record: 58141

"dansawyeror" <dansawyeror@comcast.net> wrote in message
news:Y_OdnUi9xcVd2xHZnZ2dnUVZ_rCdnZ2d@comcast.com...
> Thank you all for your replys, they were all interesting.
>
> The first set of test measurements were taken on a 2-meter loaded
vertical. Two
> voltage readings were taken via a high impedance scope probe, one at the
> feedpoint of the coax center connection, and the other from the connection
of
> the coax shield to the antenna ground. In this case the ground is a simple
> raised metal 1/4 inch screen mesh about 10 square feet.
>
> The antenna was tuned to resonance. The relative voltage readings were the
> center conductor was 2x the ground reading. I do not have a way to measure
> current at the base at this time.
>
> However looking ahead, with power = iv would this imply about 2 times the
energy
> is being radiated from the vertical element as through the base?
>
> Thanks Dan - kb0qil
>
> dansawyeror wrote:
> > Good morning,
> >
> > This question is: Taking measurements at the antenna and what they mean?
> >
> > The antenna is a loaded vertical over a set of untuned radials. The feed
> > is 50 Ohm coax with a 1:1 isolation transformer at the antenna. I intend
> > to run a separate coax for measurement purposes to the feed point,
> > stimulate the antenna with a 10 mw signal at the operating frequency,
> > and measure the voltage across the antenna feed and the ground
connection.
> >
> > Will the voltages indicate the relative RF impedance of antenna
> > (including loading coil) versus the ground? If the ground were near
> > perfect the voltage at the feedpoint should be close to zero. These
> > voltages should indicate the power disapation difference between the
> > antenna and the ground.
> >
> > Thanks,
> > Dan

Dan,
I'm echoing the others on this. Using scope probes for this kind of measurenet is a very touchy undertaking at the very best, even with the best quality equipment and much experience. Other methods of measuting RF are required and used by those who know. That's why they were developed. If you do this at 10M or below, then you have more chance of getting correct results.
That being said, it is not clear what you are trying to measure since you say you are, in essence, measuring "ground". It is not clear just what you are doing. Unfortunately, from your description, the way you describe this, I feel you do not have enough technical background to understand the technical concepts well enough. You appear to have some knowledge, but not enough, in what appear to be basics, to do this.
The way you describe your technique, you are not connecting the probe ground to anything. This makes no sense. RF measurements may seem like "black magic" but it takes nothing more than *really* understanding all the basics and all the stray effects really, really well.

At least you seem to understand that "ground" is not the absolute zero reference that others seem to believe it is / can be / needs to be.

A few comments in general:
You *MUST* connect *BOTH* parts of the probe tip if you hope to get anything close to true results.
Both these connections must have no effect on the measurement.
The probe must be capable of measuring what you are attempting.
There are high frequency 10x probes, but all the other sonsiderations are even more important because they will be even more susceptable to the side effects just because they *are* capable of making the measurements.
The Shield / ground part of the scope probe and cable leading back to the scope is something which can have a significant effect on what you see on the scope face. The antenna can be inducing current into this and giving false readings. This is a major problem in measuting any high frequency signals. There must be no possibility of the scope cable picking up any signal. I have seen very misleading results when this technique is tried on digital circuits which have fast rise times and therefore high frequency components.

Good luck & 73, Steve, K9DCI

3947. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 19:49:57 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e6n4t5$16n4$1@f04n12.cac.psu.edu>
Source record: 58138
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap

Sal M. Onella wrote:
> "Michael Coslo" <mjc5@psu.edu> wrote in message
> news:e6jvip$1a4e$1@f04n12.cac.psu.edu...
>> Sal M. Onella wrote:
>
> < snip >
>>> I learn new tricks every day. Morse Code isn't one of them.
>>
>> The real issue is probably that HF privileges are probably just not that
>> important to you.
>
> < snip >
>
> Thanks for explaining it so clearly. That just makes everything right.
>
>

Hey, no prob.

I don't use Morse code, probably never will, unless I get into keyboard Morse.

But I did want the HF access, so I learned Morse code. It was that important to me.

As for what is right, do you know that there are thousands, maybe millions of people who can't pass the writtens? How is it right that we have any testing at all when we discriminate against them?

It isn't an insult to anyone to say that HF access isn't important enough to them that they will take the time and effort to learn Morse code. Ham radio doesn't have to be important to anyone - it's a hobby.

- 73 de Mike KB3EIA -

3948. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 19:53:13 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6n539$pn1$1@avnika.corp.mot.com>
Source record: 58142

OK here's my take, since all the other answer'ers answered without having enough info in the first place, in my opinion...

Pink niose explanatino #12.
What you call the "pink noise" that you see / hear in an FM receiver could be that which is designed into the receiver and therefore not normally removable. You could add preemphasis to "whiten" it up. The reason is that the receiver has "de-emphasis" built in to compensate for the pre-emphasis designed into the transmitters that it will receive, which, in turn, was put there to help enhance the low noise characteristics of the FM mode of transmission. This "de-empnasis" is nothing more than a filter which reduces the high frequency audio copmponents more than the low frewquencies, thus giving it the "pink" or low frequency enhanced characteristic. The term Pink coming from the color red which is the color of lower frequency visible light and we have simply retained that analogy when referring to noise. Narrow band receivers use a simple -6 dB per octave deemphasis across the whole audio band and wide band, broadcast receivers use something similar, but it doesn't extend across the whole audio band.

So can you be more speciffic?

When do you hear this noise?
Why do you want to get rid of it?
What are you listening to?

73, Steve, K9DCI

"Boborato" <atmosfera.web@gmail.com> wrote in message
news:e6e4u3jel1@news.nivel5.cl...
> Hi group.
>
> I wanna know how can I get the FM signal without that nasty 'pink' noise.
>
> I'm not using any kind of external antenna.
>
> Greetings!!
>
>

3949. Re: Buyer Beware - Cobra Ultralight

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 19:53:17 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e6n53d$16n4$2@f04n12.cac.psu.edu>
Source record: 58139

Owen Duffy wrote:
> On Mon, 12 Jun 2006 11:04:37 -0400, Michael Coslo <mjc5@psu.edu>
> wrote:
>
>
>> I'm modeling the thing in 4nec2 now. I get different results than both
>> of you, so I need to go back to the drawing board.....
>
> The NEC deck for my models is linked from the article. You will need
> to replace the $freq symbolic variable though with a number.

Thanks Owen, I'll take a look after tonights club meeting.

- 73 de Mike KB3EIA -

3950. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 19:55:03 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6n56o$pn6$1@avnika.corp.mot.com>
Source record: 58140

"John Ferrell" <johnferrell@sprintmail.com> wrote in message
news:3fkr82hl0ugon8vrja2r6bt8dpj2c5cna9@4ax.com...
> Neat. I especially like the Black Noise...

Isn't the mute switch nothing more than a black noise generator?

73, Steve, K9DCI

3951. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 20:06:39 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6n5sfppj1@avnika.corp.mot.com>
Source record: 58144

"W3JDR" <joe@roccis.com> wrote in message
news:YUBig.3630$%m5.685@trnddc04...
>> Dave,
>
>> If you've never heard of 'pink' noise, then you're probably not a student
of
>> noise.
>>
>> In noise parlance, 'white' noise is the term that is usually used for
>> non-bandlimited noise (ie, 'broadband noise'). "Pink' noise, on the other
>> hand, is a term used to refer to bandlimited noise. In practice, anything
>> that comes out of the audio channel of a communications receiver is
really
>> 'pink' noise, as the bandwidth is limited to a few KHz. On the other
hand,
>> the noise that is incident at the antenna or generated in the front-end
is
>> much broader in bandwidth and is more deserving of the term 'white'
noise.
>> Joe W3JDR

>White noise is constant energy/Hz, pink is constant energy/octave.
>tom K0TAR

You're both right. The "classical" definition is Tom's. "White" is a
constant energy density. "Pink" is 1/f, which gets to you the octave thing.
In looser circles/ discussions, we often call noise which is not infinite
in bandwidth or not "flat" in the bandwidth of discussion as "colored" and
when the low frequency end has more than the high, "pink" often creeps into
the vocabulary. "RED" noise would be what many broadcast FM stations seem
to be transmitting now-a-days. 15-20 dB bass boost even on the mics.
Really hard to listen to, but liked by the sub woofer crowd we all hear
coming blocks away.

73, Steve, K9DCI

3952. Re: FM without 'pink noise'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 20:07:31 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6n5u5ppl1@avnika.corp.mot.com>
Source record: 58145

"Jimmie D" <jimmiedee@bellsouth.net> wrote in message
news:Bfjjg.10989$gv2.4052@bignews3.bellsouth.net...
>
> "Boborato" <atmosfera.web@gmail.com> wrote in message
> news:e6e4u3jel1@news.nivel5.cl...
> > Hi group.
> >
> > I wanna know how can I get the FM signal without that nasty 'pink'
noise.
> >
> > I'm not using any kind of external antenna.
> >
> > Greetings!!
> >
>
> Use an outside antenna
>
>

Ahhhh! Right to the heart of it, Jimmy...

73, Steve, K9DCI

3953. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 20:15:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <H1Fjg.147347$F_3.25593@newssvr29.news.prodigy.net>
Source record: 58143

jawod wrote:
> Perhaps I'm not pedantic enough to enjoy the courtesy of your reply.

I just checked back to your last posting to this thread.
Here's what it said:

> Error!
> newsgroup server responded: Bad article number
> Perhaps the article has expired
> <448CC167.7010009@fuse.net> (272761)

That's rather difficult to reply to.

> My simple question was: Is this a novel way to create a trickle charger?

You could get some charge out of it but I just don't know how
many joules per unit time. Perhaps someone out there in the
desert could perform an experiment.
--
73, Cecil http://www.qsl.net/w5dxp

3954. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 20:33:22 UTC
From: hasan schiers <schiers@netins.net>
Message-ID: <e6n7ei$kp7$1@news.netins.net>
Source record: 58146

Here's something similar Cecil:

I drove at 65 mph through a limited (about 1 mile wide) wind driven dust storm from an Iowa corn field during a drought. I was watching my S-meter on a 2m radio at the time (in the car). It slowly built up and eventually pinned (simultaneously, AM radio stations suffered the static build up and were blotted out. By the time I got through the mini-dust storm, the PIN diode antenna switching in the 2m radio had been destroyed. It was not raining. It was hot and dry, and you can imagine the dust particle count.

I don't know the mechanics (as you people are disputing), but there was no doubt a significant build up and eventual discharge (I heard it on the AM radio) and the dust in the wind (thankyou Kansas), caused it, IMO.

Another idiosyncratic report:

40m dipole up 30'. Middle of winter, very heavy wet snow.

I could draw an arc off the end of the coax connector about an inch long. The rate of build/up and then discharge (how long it took between SNAPS) correlated very nicely with the rate of snowfall. The harder it snowed, the more rapidly the arc would happen, the more slowly it snowed, the longer in between arcing from the connector.

Both of these, I would call "precip static"...one was dust, the other was snow. I'll leave it to you guys to figure out the mechanism.

73,

...hasan, N0AN
"Cecil Moore" <mycall@hotmail.com> wrote in message
news:hTDjg.24031$VE1.20801@newssvr14.news.prodigy.com...
> w8ji@akorn.net wrote:
>> I must have missed it.
>
> :-) Sure you did even after I said it half a dozen times. :-)
> You have talked about my transmission line laying on the
> rug scorching it so you could not possibly have "missed it".
>
>> With any AURAL noise there is always a spark, and
>> that spark is accompanied by electrical noise or component damage.
>
> Yes, I have said *many* times that my transceiver's power was
> off and it was unplugged from the transmission line. You know
> the transmission line was laying on my rug because you have
> talked about that before.
>

>> My understanding was you said the HF noise in the receiver was caused
>> by the random particles actually striking the antenna. If so, grounding
>> makes no difference.
>
> I agree and never said otherwise. However, since you
> insist, below I indicate how grounding would have made
> a difference had I responded in a different way.
>
>> If you disagree, explain why.
>
> Let's say that I was stupid enough not to disconnect my
> transceiver when I heard the arcing at the coax input and
> instead turned the transceiver on. Let's say it didn't
> suffer failure.
>
> Would you agree that I would hear RF noise in the transceiver
> every time the coax connector arced?
>
> Would you agree that if I shorted the center conductor to
> ground that since the outer conductor was already grounded,
> the RF noise in the transceiver would decrease?
>
>> Why not act mature?
>
> It was you who once again regressed to your terrible-twos
> infantile omniscient stage and just couldn't resist
> misquoting me. Please don't do that again.
> --
> 73, Cecil http://www.qsl.net/w5dxp

3955. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 20:57:17 UTC
From: w8ji@akorn.net
Message-ID: <1150232237.384008.195620@y43g2000cwc.googlegroups.com>
Source record: 58147

Cecil Moore wrote:

> :-) Sure you did even after I said it half a dozen times. :-)
> You have talked about my transmission line laying on the
> rug scorching it so you could not possibly have "missed it".

I did NOT. You must have confused me with someone else.

> Would you agree that I would hear RF noise in the transceiver
> every time the coax connector arced?

Absolutely.

> Would you agree that if I shorted the center conductor to
> ground that since the outer conductor was already grounded,
> the RF noise in the transceiver would decrease?

Absolutely. So would the signals. S/N ratio would not change.

3956. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 21:23:21 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150233801.005719.10130@u72g2000cwu.googlegroups.com>
Source record: 58148
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap

Michael Coslo wrote:
> Sal M. Onella wrote:
> > "Michael Coslo" <mjc5@psu.edu> wrote in message
> > news:e6jvip$1a4e$1@f04n12.cac.psu.edu...

>
> As for what is right, do you know that there are thousands, maybe
> millions of people who can't pass the writtens? How is it right that we
> have any testing at all when we discriminate against them?

I am ceertainly willing to discuss non test based quilifaction frot he
ARS but that is a non no to even discuss
>
>
> It isn't an insult to anyone to say that HF access isn't important
> enough to them that they will take the time and effort to learn Morse
> code. Ham radio doesn't have to be important to anyone - it's a hobby.

yes it is if the person says it is one right we ALL have mike is to
decide for ourselves what is insulting to US

It is an insult to mandate testing in 19th century tech in a service
using PUBLICLY own property and claiming to have anything to do with
techinal admavncement, esp if I say it is since I am more important
than the regs at least on some elvels I am a man not a mindless sheep

>
>
> - 73 de Mike KB3EIA -

3957. Re: Wide bandwidth ladder line J-pole for 6-Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 21:27:14 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <V5adnegPcuxKsBLZnZ2dnUVZ_qKdnZ2d@comcast.com>
Source record: 58150

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e6n2i3$pf0$1@avnika.corp.mot.com...
>
> "Chuck Olson" <chuckolson01@REMOVETHIScomcast.net> wrote in message
> news:Ts-dndx_b-BRkBPZnZ2dnUVZ_oydnZ2d@comcast.com...
> > Today I clipped out the connection I had made at the bottom of the
> radiator,
> > and the SWR bandwidth remained 2MHz as is was with the connection. The
> group
> > of SWR measurements moved up an average of 150 KHz from my readings with
> the
> > connection, but otherwise the performance of the "Slim Jim"
configuration
> is
> > identical. The length of the gap may now serve as a tuning mechanism,
> which
> > wasn't a feature with the bottom connection, and the archives show some
> > builders made good use of that facility. Thanks for spotting the
> similarity,
> > Jeff. My 6M antenna will no doubt be better for it.
> > 73, Chuck
>
>
> Chuck,
> I searched on Slim-Jim. Let me see if I understand correctly.
> Slim-Jim is a twin-lead or ladder-line type J antenna with the *top* of
the
> half-wave (dual conductor) radiator ends connected.
> Yours has the bottom of the 1/2 wave ends connected.

Yes, I conncted both top and bottom of the radiator to the previously
floating wire, and when I removed the bottom connection, the SWR bandwidth
remained as before, so the bottom connection does not appear to be
necessary. The top connection is very easy, and evidently that's all you
need, so no doubt about it - - it becomes a Slim-Jim.

> Am I to understand that the Slim-Jim configuration and yours have very
> similar SWR BW?

Yes.

> This is good to know.
>
> Then I'd like clarification on your comment:
> "... If you analyze the operation of the very successful "Open Stub

> > J-Pole" that Arrow makes, you will find they use the 0.95 FV for both
the
> > radiator and the stub,..."
>
> Can you be more specific about this. What is the electrical length of the
> stub for said analysis? I like that design, though there is controversy
> about it.

I'm old fashioned, so I use an HP17BII calculator which has a "solve" function, and with the formula, LIN = 11811 / F(MHZ) / 4 x VF, given any two of LIN, FMHZ, and FV, I can obtain the third for a 1/4 wave stub.

We find on the Arrow site http://www.arrowantennas.com/j-pole.html the longest element for operation at 146 MHz is 57.5", and the shorter element that makes the 1/4-wave stub is 19.25". With FMHZ = 146 and LIN = 19.25" we solve for VF of that shorter element and get 0.95 (which refers to the free space 1/4-wave as 1.00). Subtracting the 19.25 from 57.5 we get the radiator length of 38.25". Since that is a 1/2-wave length, we divide by 2 so we can use the 1/4-wave formula, and solving for VF we again get 0.95. I hope this helps.

>
> 73, Steve, K9DCi
>
>

Best regards,

Chuck, W6PKP

3958. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 21:27:30 UTC
From: w8ji@akorn.net
Message-ID: <1150234050.789190.210420@h76g2000cwa.googlegroups.com>
Source record: 58149

> I could draw an arc off the end of the coax connector about an inch long.
> The rate of build/up and then discharge (how long it took between SNAPS)
> correlated very nicely with the rate of snowfall. The harder it snowed, the
> more rapidly the arc would happen, the more slowly it snowed, the longer in
> between arcing from the connector.
>
> Both of these, I would call "precip static"...one was dust, the other was
> snow. I'll leave it to you guys to figure out the mechanism.

Hasan,

I think the problem here is there are two things at work.

The first is a slow (compared to radio frequencies) build up of charge
in an antenna that eventually breaks down a dielectric. I' like many
people, have seen that many times.
As a matter of fact that is common trigger for relay failures or SWR
detector failures in systems without a leak impedance that leaks off
charge faster than it builds.

The second is what is commonly called P-static. As described earlier
we had severe problems on tall tower and on the roofs of buildings.
This is a noise that starts as a slow rapid hissing or buzzing that
quickly builds almost to a musical tone as the weather gets more
severe. This is the mechanisim I disagree with being caused by
particles striking the antenna. The reason I disagree was clearly
stated:

1.) Taller structures are affected much more than lower ones that are
in the same weather

2.) Even one exposed protruding point seems to be the cause, since I
could cover that point in Station Master antennas and make it go away,
and it would go away by adding a taller blunt ended structure near the
affected antennas.

3.) With identical antennas stacked on a single tower, the uppermost
antenna is by far the most affected.

4.) I could get near the antennas and actually hear the accoustical
noise that matched the noise on repeaters and actually see the corna
ball.

...and on and on.

Cecil then proposed, if I am not mistaken, that P-static was caused by
particles striking the antenna, each one making a noise as it

discharged into the antenna, and that noise could be reduced by grounding the element at DC. That is really the only point I disageed with.

No one should even have a tall antenna or large antenna or any antenna that is subject to high levels of charge that does not have a leakage path to ground. That's just a given. But the idea a closed loop is somehow quieter than an open element that also has a leakage path makes no sense at all (especially when we are talking about noise from each particle) unless the antenna is:

1.) Lower
2.) More blunt
3.) Has less protruding ends

My reasoning is the same number of charges hits each antenna, and the greater the potential difference between those changes and the antenna the greater the discharge power transfer to the antenna will be. So if the antenna were allowed to float to avarage potential of space around the antenna the noise from any energy transfer would actually be less.

This excludes the big pop when a dielectric breaks down.

My mobile antenna is matched by a shunt inductor, and that inductor prevents the coax from charging up with dc. However, that inductor does NOT make the antenna any more useful in weather like you described. It is every bit as noisy, absent the sporatic loud pops when a dielectric breaks down.

Say I leak that antenna with a 20K resistor, and replace that resistor with a nearly zero ohm inductor that has high reactance at the operating frequency. There will be no noise change.

The same applies to repeater antennas. We could use folded dipole elements, elements in fiberglass radomes, and so on. The only thing that helped was a blunter element or making the antenna lower in relation to some other object on the roof.

We looked at dozens of systems hunderds of times, because no one wants communications to vanish in inclement weather. We never found a "dc grounded antenna" any help at all, although some leakage path probably would have stopped the diode failure you had...but not the noise.

73 Tom

3959. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 21:47:02 UTC
From: Eric the hair Oyen <Eric@thehairOyen.com>
Message-ID: <448f24f3$0$3637$88260bb3@free.teranews.com>
Source record: 58151
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1150233801.005719.10130@u72g2000cwu.googlegroups.com...
>
I am a man not a mindless sheep
>
You and Eric have sex with men and sheep.

--
Posted via a free Usenet account from http://www.teranews.com

3960. Re: Question about Bode's book Ch V P 81

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 22:15:14 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <ticu82dk7507ehvfa348btb9cqp90rkof5@4ax.com>
Source record: 58152

On 13 Jun 2006 09:30:57 -0700, "RR67" <raymond.ribas@gmail.com> wrote:

>Hello ,
>
>I am reading the Bode's book network analysis ...
>I have a problem to understand the result (5-30) Page 81, could anyone
>tell me why the transmission from input to grid of tube is not a
>admittance.

Perhaps because Bode chose not to deal with admittances for another 9
pages.

>on contrary, bode multiply the two transmission by two
>impedance Z2 andZ4. this makes the two transmission become
>dimentionless (but from bode's definition , transmission is transfer
>admittance for mesh equations)

Hi Raymond,

If, as you say, the outcome is dimensionless, then your statement

>. the final result for the fractionated gain has unit of ohm square.

reveals not only a conflict, but an error.

The fractional gain is a transfer function reduced from the mesh of 5
impedances and a cold tube shown in Fig. 4.5. Your question above
seems largely out of context to the material.

73's
Richard Clark, KB7QHC

3961. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 22:26:09 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <5YGjg.50144$Lm5.24239@newssvr12.news.prodigy.com>
Source record: 58153

hasan schiers wrote:
> Both of these, I would call "precip static"...one was dust, the other was
> snow. I'll leave it to you guys to figure out the mechanism.

The behavior of charged particles has been understood for
a century by most rational engineers and physicists.
--
73, Cecil http://www.qsl.net/w5dxp

3962. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 23:03:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <OuHjg.50152$Lm5.13899@newssvr12.news.prodigy.com>
Source record: 58155

w8ji@akorn.net wrote:
>> Would you agree that if I shorted the center conductor to
>> ground that since the outer conductor was already grounded,
>> the RF noise in the transceiver would decrease?
>
> Absolutely. So would the signals. S/N ratio would not change.

There was nothing about signals being present in the previous
discussion and this is the first time signals or S/N ratio have
even been mentioned. Signals and/or S/N ratios are therefore
irrelevant to the present discussion.

W8JI previously wrote:
> My understanding was you said the HF noise in the receiver was caused
> by the random particles actually striking the antenna. If so, grounding
> makes no difference.

You just admitted above that shorting the transmission line
to ground changes the noise level, i.e. indeed does make a
difference. You have agreed with every leading question that
I have asked you so it seems we are in agreement.
--
73, Cecil http://www.qsl.net/w5dxp

3963. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 23:06:20 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <8heu829nge0vngdo5cfl9d8m3q3i7m3ds5@4ax.com>
Source record: 58154

On Tue, 13 Jun 2006 09:51:43 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>As this discussion has been largely coaxial based, the outer
>conductive surface of the coax is the primary imbalance to a dipole
>through its "third wire" connection at the dipole feed point. It
>appears as one of three wires to the abstract source established at
>that feed point and it presents an ad-hoc Z load. The value of this
>load is rarely determined, except when one deliberately attempts to
>make their feed line 1/2 wave long (or some multiple). Of course,
>that means 1/2 wave for the velocity factor of the outside conductive
>path of the coax. This is often accomplished through cut and try
>rather than modeling or measuring currents, but these too would be
>good first pass approximations.

Richard,

There is a focus on evaluating baluns as a passive component in a
bench test jig designed to characterise them by a simple equivalent
circuit to show their imperfections in certain scenarios (eg impedance
range, frequency range, common mode impedance with different balance
points on the load and floating loads). Collectively, we seem to have
done that to death. To date, I don't think anyone has discovered a
practical balun that is close to ideal in all applications.

Baluns (being any device that is designed to facilitate the transition
from un-unbalanced load (might be perfectly balanced, might not be) to
an unbalanced transceiver (one terminal approximately grounded) seem
to be usually employed to:
- reduce common mode RF currents entering the shack where they may
disrupt operation of equipment, and more recently may be a health
concern;
- reduce the feedline's participation in radiation or reception
(pattern distortion, unwanted noise pickup, EMC / proximity to other
equipment).

It seems to me that NEC models are a worthwhile tool in developing
insight into the effects that occur. I think NEC modelling of a coax
fed, centre fed dipole at various heights as a centre fed conductor
with generator at the centre of two wires, and the "third wire" to
ground through some loss resistance is quite revealing. (The coax
example is not to suggest that this phenomena is peculiar to coax feed
alone.)

You mention measuring currents. It seems that discussion on common
mode currents has spawned a new market for clip on RF current probes.

I even see suggestion that common mode current be continuously monitored in much the same way as VSWR is monitored at a spot adjacent to the tx.

NEC modelling reveals that the currents on the "third wire" (common mode current) varies with position (no surprise there), and that depending on the topology, can be insignificantly low at some points while it is significantly high at other points. Measurement of common mode current at just a single point does not necessarily provide enough information to detect or assess a common mode current problem. Spot measurement is a superficial approach.

So if there are maxima and minima in the common mode standing wave current on the feedline, the influence of chokes on current in all parts of the antenna system (hence pattern) and loss of chokes will depend on where they are located.

That is not to suggest that it is all too complicated. I think there are good reasons to routinely deploy baluns of appropriate type an location, but they aren't a cut and dried idealised solution and further work may be required to identify and rectify residual problems.

Owen
--

3964. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 23:09:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gAHjg.50153$Lm5.12112@newssvr12.news.prodigy.com>
Source record: 58156

w8ji@akorn.net wrote:
> Cecil then proposed, if I am not mistaken, that P-static was caused by
> particles striking the antenna, each one making a noise as it
> discharged into the antenna, and that noise could be reduced by
> grounding the element at DC. That is really the only point I disageed
> with.

I'm glad you now agree with it. Grounding the feedline
obviously reduces everything, including noise.
--
73, Cecil http://www.qsl.net/w5dxp

3965. Re: Give up CB for ham?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-13 23:18:16 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <YIHjg.12661$921.4057@newsread4.news.pas.earthlink.net>
Source record: 58157
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.swap

Billy Smith <colonelsmileyeoiawtopwat@yahoo.cojj> wrote in
news:GpPig.4546$lp.616@newsread3.news.pas.earthlink.net:

> Slow Code wrote:
>> patk1212@gmail.com wrote in
>> news:1149534276.955122.310050@i40g2000cwc.googlegroups.com:
>>
>>
>>>Alot of people are telling me that CB is just for inbred hicks and that
>>>I should replace the CB in my truck with a ham radio. What do you
>>>thjink?
>>
>>
>>
>>
>> Which of your trucks were you thinking of updating? Your old rust
>> bucket truck that still runs, or the one on blocks that you call your
>> base station?
>>
>> sc
>
> Nice predjudice against a guy without knowing him. Somehow did an optic
> nerve get crossed with your asshole giving you a crappy view of life?

Thanks for the diagnosis Doc, I wondered what was wrong. So did you
finally decide to give up CB for ham?

sc

3966. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 00:01:40 UTC
From: w8ji@akorn.net
Message-ID: <1150243300.490992.305090@i40g2000cwc.googlegroups.com>
Source record: 58158

Cecil Moore wrote:
> You just admitted above that shorting the transmission line
> to ground changes the noise level, i.e. indeed does make a
> difference. You have agreed with every leading question that
> I have asked you so it seems we are in agreement.

Cecil,

When you short ANY transmission line center to ground and the shield is grounded, which is what you asked, ALL signal levels will decrease. They will all go to zero if it is a pefect short.

You have a very strange way of defining noise decreases! If I unplug the receiver or place it on standby, noise will decrease also. So will turning off the RF amplifier. So will adding an attenuator.

If shorting the center to shield making noise go away and ignoring the fact it also makes the signal go away makes you feel like you have proven something, then I can't go further. That's about the silliest thing I've ever heard as a logical arguement!

73 Tom

3967. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 01:32:21 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <frou82lobemh1nuqkh2o95dqfr8m9mm0f3@4ax.com>
Source record: 58159

If the Swr is better below 145 than above the radiator must be over length. You need to trim it or match it. If you are measuring through lot of coax the match at the antenna is a lot worse than 3:1.

Any kind of choke arrangement amounts to working on the wrong problem to me.

On Mon, 12 Jun 2006 19:17:44 GMT, "K. Hastings" <myfamilydotcom@hotmail.com> wrote:

John Ferrell W8CCW

3968. Re: HF antenna for yacht / boat

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 01:44:06 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <8fmdnTsVzcf89xLZRVnysw@bt.com>
Source record: 58160

> Currently I am thinking about a length of wire between the
> stern and the top of the mast, fed via an ATU at the stern
> end. I can make the wire ~50' long. What is the optimum
> wire length? As long as possible?
>
==========
Optimum wire length is that which reach from the stern to the top of
the mast.

Reg.

3969. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 02:21:58 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150251718.568473.33200@f6g2000cwb.googlegroups.com>
Source record: 58161
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap

Eric the hair Oyen wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1150233801.005719.10130@u72g2000cwu.googlegroups.com...
> >
> I am a man not a mindless sheep
> >
> You and Eric have sex with men and sheep.
I don't know or care who or what Eric may have sex with it is none of
my busness and none of yours

I certainly don't care for sheep myself they are too BAAAD for my taste
Who I sleep has no bearing on radio in anyway

3970. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 03:37:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <XvLjg.147675$F_3.18514@newssvr29.news.prodigy.net>
Source record: 58162

w8ji@akorn.net wrote:
> When you short ANY transmission line center to ground and the shield is
> grounded, which is what you asked, ALL signal levels will decrease.
> They will all go to zero if it is a perfect short.

Glad you agree. Now would you agree that in a system with
arcing, anything that eliminates the arcing and preserves
the signal has reduced the noise? A path to ground will
do exactly that.
--
73, Cecil http://www.qsl.net/w5dxp

3971. antenna coil forms

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 03:39:14 UTC
From: rckchp <rckchp@comcast.net>
Message-ID: <1150256354.651203.182360@u72g2000cwu.googlegroups.com>
Source record: 58163

Greetings,

In the course of my occupation I have aquired a bunch of heavy cardboard tubes. These are all 3-1/4" external diameter and approx 1/8 to 3/16" wall thickness. Before sending them to the cardboard recycling dump I though of offering them to the antenna coil experimenters out there. Some of them have what appears to be a plastic coating and would likely be somewhat weather resistant, but even the plain ones could be spray on plastic (or brushed on epoxy or poly resin?) coated. A list how many available and the lengths follows (the plastic coated ones identified with letter "P") :

(2) 32-3/4" P
(2) 24-1/2"
(3) 18-3/4" P
(4) 18-3/4"
(3) 16-1/2"
(6) 15" P
(5) 14-1/4"
(1) 12-3/4" P
(3) 12-1/4
(2) 10-1/2"

I'm offering these free, first come first served, but you pay the postage, or you can pick them up if you're local. I think they can be sent parcel post without any wrapping....I'll just stick a mailing label on them and send them out. When it arrives just look at the postage sticker and reimburse me that amount. Any takers? If so, email me (off list) your name & mailing address.

72 & Regards,

Rich k2cpe
K2 #1102
rckchp@comcast.net

3972. Re: antenna coil forms

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 09:15:51 UTC
From: nm5k@wt.net
Message-ID: <1150276551.208972.15780@f6g2000cwb.googlegroups.com>
Source record: 58164

rckchp wrote:

> I'm offering these free, first come first served, but you pay the
> postage, or you can pick them up if you're local. I think they can be
> sent parcel post without any wrapping....I'll just stick a mailing
> label on them and send them out. When it arrives just look at the
> postage sticker and reimburse me that amount. Any takers? If so, email
> me (off list) your name & mailing address.
>
> 72 & Regards,
>
> Rich k2cpe
> K2 #1102
> rckchp@comcast.net

Tempting, but I'm in pretty good shape here I guess. Also, I'm
kinda wary of any paper material, as it might get damp, etc..
I'm always looking for things to build antennas, coils, etc...
I just stumbled across another recently... I've been thinking
about making a "plastic bugcatcher" for 160m. I already
have two 80-10 versions.. But I always was wondering what
to form a bigger coil on...Well, I think I found one way...
Use these big canisters that DVD's come in... I torch up a lot
of DVD's, and buy a lot of them. Both 50 packs, and 100
packs, that come in the big plastic canisters. I was looking
at one the other day, and thought, *dang*, this would make
a pretty good coil form... They are 5 inches dia, and about
6 inches tall, if you used a 100 pack.. They already have a
spindle running through the middle as an alignment guide..
Some thin sticks might fit as is, but most would need to have
that widened out a bit.. Would be a cinch to rig up..
So I think I'm going to use one of those to wind a 160 coil.
yep, it will be heavy with the wire, and the antenna would have
to be guyed when driving I think. But I could use as is sitting still.
Those canisters could be stacked for more height.
The coil on my 80-10 antenna is 3 inch dia plastic tube, and
the top and bottom caps were peanut butter jar lids. They fit
perfectly. I drilled holes in the caps, and ran the stick up
through the middle, and then glued and sealed it.
MK

3973. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 10:06:40 UTC
From: w8ji@akorn.net
Message-ID: <1150279600.497253.238450@c74g2000cwc.googlegroups.com>
Source record: 58165

Cecil Moore wrote:
> w8ji@akorn.net wrote:
> > When you short ANY transmission line center to ground and the shield is
> > grounded, which is what you asked, ALL signal levels will decrease.
> > They will all go to zero if it is a perfect short.
>
> Glad you agree. Now would you agree that in a system with
> arcing, anything that eliminates the arcing and preserves
> the signal has reduced the noise? A path to ground will
> do exactly that.

Of course I agree when someone shorts the RF input connector of their
radio the noise will decrease! Better yet, they should just unplug it
and throw it in the closet! Then the noise will be zero!

73 Tom

3974. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 11:48:03 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <THSjg.45988$4L1.17321@newssvr11.news.prodigy.com>
Source record: 58166

w8ji@akorn.net wrote:
> Of course I agree when someone shorts the RF input connector of their
> radio the noise will decrease!

W8JI previously wrote:
> So when you provide a DC path that does not short the antenna at radio
> frequencies, it does nothing.

In AZ, I provided a DC path (choke) that eliminated arcing
and allowed me to make contacts. The elimination of arcing
obviously improved my signal to noise ratio.

You have stopped asserting that folding doesn't make for
a quieter antenna system. Do you now understand why a
folded dipole is less noisy than a non-folded dipole in
a charged particle environment?

Do you understand that the probable cause for high
antennas having more particle noise is that the higher
you go, the faster the wind blows?
--
73, Cecil http://www.qsl.net/w5dxp

3975. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 13:08:11 UTC
From: billy_shittydrawers_smith@yahoo.com
Message-ID: <1150290491.183029.98440@p79g2000cwp.googlegroups.com>
Source record: 58167
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

sodomized by an_old_friend wrote:
> Eric the hair Oyen wrote:
> > "an_old_friend" <konstans@hotmail.com> wrote in message
> > news:1150233801.005719.10130@u72g2000cwu.googlegroups.com...
> > >
> > I am a man not a mindless sheep
> > >
> > You and Eric have sex with men and sheep.
> I don't know or care who or what Eric may have sex with it is none of
> my busness and none of yours

Marqueer outs his perverted homosexual tendencies again!

> I certainly don't care for sheep myself they are too BAAAD for my taste
> Who I sleep has no bearing on radio in anyway

Markie admits he's had sex with sheep! But he didn't care for it after
that one time, right, Marqueer?

3976. Antennas and the FCC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 13:16:02 UTC
From: jimbo <jimbo62@spamex.com>
Message-ID: <W6CdnYNZar6-kQ3ZnZ2dnUVZ_tGdnZ2d@comcast.com>
Source record: 58168

A few years ago there was a flurry of activity regarding measurement of radiation in the immediate area around the antenna/station. As I recall, anything under 100 watts was exempt from the requirements.

Can someone clarify the situation?

Thanks, jimbo

3977. Re: Antennas and the FCC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 13:49:33 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1150292304_65647@sp6iad.superfeed.net>
Source record: 58169

jimbo wrote:
> A few years ago there was a flurry of activity regarding measurement of
> radiation in the immediate area around the antenna/station. As I recall,
> anything under 100 watts was exempt from the requirements.
>
> Can someone clarify the situation?
>
> Thanks, jimbo

Hey Jimbo,

Here's a link:

http://www2.arrl.org/news/rfsafety/exposure_regs.html
ARRLWeb: The FCC's New RF-Exposure Regulations

The criteria include both power and frequency, so
powers below 100 watts at VHF and UHF may be
subject to the regulation.

Chuck

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

3978. Re: Antennas and the FCC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 15:05:15 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <12909dcs1jtbv67@corp.supernews.com>
Source record: 58170

jimbo wrote:
> A few years ago there was a flurry of activity regarding measurement of
> radiation in the immediate area around the antenna/station. As I recall,
> anything under 100 watts was exempt from the requirements.
>
> Can someone clarify the situation?
>
> Thanks, jimbo

Jim;

Go to the ARRL web site. They have links there to the requirements for
power measurement that you are looking for.

Dave WD9BDZ

3979. Re: Antennas and the FCC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 15:15:12 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <3KVjg.178975$bm6.126047@fed1read04>
Source record: 58171

> jimbo wrote:
> A few years ago there was a flurry of activity regarding measurement of
> radiation in the immediate area around the antenna/station. As I recall,
> anything under 100 watts was exempt from the requirements.
>
> Can someone clarify the situation?
>
> Thanks, jimbo

Jim See URL:

http://www.arrl.org/tis/info/rfexpose.html

--
CL -- I doubt, therefore I might be !

3980. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 15:42:09 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1150299729.125596.232630@y43g2000cwc.googlegroups.com>
Source record: 58172
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

billy_shittydrawers_smith@yahoo.com wrote:
> sodomized by an_old_friend wrote:
> > Eric the hair Oyen wrote:
> > > "an_old_friend" <konstans@hotmail.com> wrote in message
> > > news:1150233801.005719.10130@u72g2000cwu.googlegroups.com...
> > > >
> > > I am a man not a mindless sheep
> > > >
> > > You and Eric have sex with men and sheep.
> > I don't know or care who or what Eric may have sex with it is none of
> > my busness and none of yours
>
> Marqueer outs his perverted homosexual tendencies again!
get help for your dementia

3981. Re: Antennas and the FCC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 17:02:27 UTC
From: jimbo <jimbo62@spamex.com>
Message-ID: <QqKdncFGINa_3A3ZnZ2dnUVZ_vidnZ2d@comcast.com>
Source record: 58173

OK, thanks for the links. Everything is OK.

jimbo

jimbo wrote:
> A few years ago there was a flurry of activity regarding measurement of
> radiation in the immediate area around the antenna/station. As I recall,
> anything under 100 watts was exempt from the requirements.
>
> Can someone clarify the situation?
>
> Thanks, jimbo

3982. newbie UHF antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 17:04:22 UTC
From: Mike <meb58optonline.net>
Message-ID: <jcg09290feuu9dt7poubpt873k2e7kbps5@4ax.com>
Source record: 58174

Hi...I have a mototola ht1000 uhf walkie talkie. I would like to
install an outdoor antenna on my house to increase my range. Can
someone please advise me to a site or any other info that could help
me out? It currently has a small rubber antenna on it that I would
like to improve on when Im home....Thank You.....

3983. Re: newbie UHF antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 17:08:38 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97E2674A11DA9spectrumhogstarbandn@198.186.192.196>
Source record: 58175

> Hi...I have a mototola ht1000 uhf walkie talkie. I would like to
> install an outdoor antenna on my house to increase my range. Can
> someone please advise me to a site or any other info that could help
> me out? It currently has a small rubber antenna on it that I would
> like to improve on when Im home....Thank You.....
>

Not sure there is information that you want available here, but
http://www.batlabs.com does have a lot of Morotola info. THe HT-1000 is
discussed here: http://www.batlabs.com/visar.html

Ed K7AAT

3984. Re: newbie UHF antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 17:09:43 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449042b6$0$79787$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57926

"Mike" <meb58optonline.net> wrote in message
news:jcg09290feuu9dt7poubpt873k2e7kbps5@4ax.com...
> Hi...I have a mototola ht1000 uhf walkie talkie. I would like to
> install an outdoor antenna on my house to increase my range. Can
> someone please advise me to a site or any other info that could help
> me out? It currently has a small rubber antenna on it that I would
> like to improve on when Im home....Thank You.....

pretty easy. just buy a beam and some cable, or a vertical / cable setup
from a vendor. it's pretty much plug and play.

if you want to build your own, there are some cool things you can do.

cable *does* matter at UHF. most coax is very lossy.

i'd suggest a stack of long boom Yagis on a 300 foot tower. ;-

Gravity

3985. Re: Question about Bode's book Ch V P 81

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 17:25:24 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h4e0925et7vi3mev2toe4qppqujsgrj8nf@4ax.com>
Source record: 57927

On 14 Jun 2006 08:06:46 -0700, "RR67" <raymond.ribas@gmail.com> wrote:
>As bode explain in page77
> "*"Transmission "is used here as an abbreviation for transfer
>admittance in a mesh
>analysis or transfer impedance in a nodal analysis."

Hi Raymond,

This is explained, as a footnote, as an exception to the usage, not
the rule.

>... at the input with the tube (transistor) dead.

Your parenthetic use of transistor is not a valid substitution. Are
you trying to force admittances into this because of your desire to
work with solid state components?

>On my point of view this means (i3/v1) with tube dead multipli by
>(v2/v4)with tube dead and v4 now inserted where the unilateral source
>-W x i3 was before.So the first is propotional to Siemens and the
>second factor is dimensionless.

You now seem to be inventing voltage sources. Bode never uses (lower
case) v and he considers (upper case) V to be an unimportant usage or
concept in his text.

You really need to be more explicit with what you "think" the
co-factors (what you call deltas but are properly determinants) are.

>So as you can see the both factors are dimensionless.

You keep saying that, but this is not math that reduces to one number.
Further, each of the determinants is a complex number. Complex math
rarely reduces to one, real value.

> (I got the 12th reprinting version)

I have the same version.

> , so I guess I
>haven't well understood something.
>Could you tell me your opinion about this .

Bode is very dense material indeed. As I pointed out above, you need
to expand the matrix, then find the co-factors and substitute into the
equations before you start generalizing about admittances. It seems
you are trying to turn Bode into simple algebra - and that is doomed
to failure.

73's
Richard Clark, KB7QHC

3986. Re: newbie UHF antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 17:27:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zGXjg.24246$VE1.17284@newssvr14.news.prodigy.com>
Source record: 57928

Mike wrote:
> Hi...I have a mototola ht1000 uhf walkie talkie. I would like to
> install an outdoor antenna on my house to increase my range.

http://www.diamondantenna.net
--
73, Cecil http://www.qsl.net/w5dxp

3987. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 18:05:15 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <vdYjg.114781$dW3.105346@newssvr21.news.prodigy.com>
Source record: 57929

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> Of course I agree when someone shorts the RF input connector of their
>> radio the noise will decrease!
>
>
> W8JI previously wrote:
>
>> So when you provide a DC path that does not short the antenna at radio
>> frequencies, it does nothing.
>
>
> In AZ, I provided a DC path (choke) that eliminated arcing
> and allowed me to make contacts. The elimination of arcing
> obviously improved my signal to noise ratio.
>
> You have stopped asserting that folding doesn't make for
> a quieter antenna system. Do you now understand why a
> folded dipole is less noisy than a non-folded dipole in
> a charged particle environment?
>
> Do you understand that the probable cause for high
> antennas having more particle noise is that the higher
> you go, the faster the wind blows?

Yes, but there are fewer particles. What, in Yahweh's name, is particle noise? Is it somehow related to the triboelectric effect? What about the effect of the earth's electric field (100 volts/meter)? This is beginning to sound like the Forrest Mims III creation science school of explaining natural phenomena. There are a few articles on what's called "precipitation static" on the web. Generally,it's supposed to be the noise made by corona discharge on objects that have been charged up to high voltages by natural means. You might want to read the articles, Cecil, before you speculate. It could only improve your mind.
73,
Tom Donaly, KA6RUH

3988. Re: newbie UHF antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 20:05:13 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <4qq0929thgvlki52avsj8qqjs61l8ktf9n@4ax.com>
Source record: 57930

On Wed, 14 Jun 2006 13:04:22 -0400, Mike <meb58optonline.net> wrote:

>Hi...I have a mototola ht1000 uhf walkie talkie. I would like to
>install an outdoor antenna on my house to increase my range. Can
>someone please advise me to a site or any other info that could help
>me out? It currently has a small rubber antenna on it that I would
>like to improve on when Im home....Thank You.....

If this is a business service radio, I'd imagine most Motorola or
business radio dealers would have a "base station" type of antenna you
could hook to the walkie talkie with the proper cable and connector.

bob
k5qwg

3989. Re: Antennas and the FCC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 20:27:02 UTC
From: Dan Richardson <>
Message-ID: <b6s092pnkon5s5ijf3v2o4d7m9vqq8t6gs@4ax.com>
Source record: 57931

On Wed, 14 Jun 2006 07:16:02 -0600, jimbo <jimbo62@spamex.com> wrote:

>A few years ago there was a flurry of activity regarding measurement
>of radiation in the immediate area around the antenna/station. As I
>recall, anything under 100 watts was exempt from the requirements.
>
>Can someone clarify the situation?
>

http://wireless.fcc.gov/siting/FCC_LSGAC_RF_Guide.pdf

73,
Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

3990. Re: Question about Bode's book Ch V P 81

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 20:33:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <s1r092l2g1bceuu0s60as9cikg2rockmoo@4ax.com>
Source record: 57932

On 14 Jun 2006 11:42:28 -0700, "RR67" <raymond.ribas@gmail.com> wrote:

>> You now seem to be inventing voltage sources.
> ---- I try to understand what it's the physical significance of
>delta(1,3)/delta^0
>
>(transmission from input to grid)and of delta(4,2)*Wr /delta^0
>(trnsmission from plate to output) with in the both case Tube dead.
>May you tell me what it's the physical significance in this example for
>these relations ?

Hi Raymond,

You alternate between questions of math and physical significance. The two are linked only through abstractions at this point in the discussion.

The "relations" appear to be math for combined series and parallel combinations of the impedances. Others may wish to examine the math at the end of this posting.

>--- Yes I keep saying that, imagine Z1 ,Z2 ,Z3 ,Z4, and Z5 are pure
>resistors (so it's means Witout =3Dw/o parasitic elements) the (5-20)
>result holds so it's means the first factor Z2 /Z1+Z2+Z3(.../...)
>coresponding to delta(1,3)/delta^0 is dimensionless.

If the matrix is entirely resistances, then a co-factor must be resistances. How did it become dimensionless?

>I have done the calcul and I found 1/(Z1+Z2+Z3(../..) instead of the
>Bode one

This doesn't make much sense - show your work.

>so it's means the same result w/o the Z2 , for the second
>member same result but w/o the multiplicative factor Z4.

This makes even less sense - show your work.

Aside from that, and relating to only one point you complained of - admittance. Look at the last term of (5-20) and note that it is W. W is an immittance. An immittance is normally dimensionless, but in older texts it can be either an admittance or an impedance depending upon context.

********** Fixed Font **********

For other's benefits, the circuit is simplified by Bode to:

```
------- Z2 -------- Z4 ------
| | |
Z1 Z3 Z5
| | |
----------------------------
```

Fractional gain = - term1 ï¿½ term2 ï¿½ Z5 ï¿½ W

where

term1 = Z2

```
-----------------------
Z3(Z4 + Z5)
Z1 + Z2 + ------------
Z3 + Z4 + Z5
```

term2 = Z4

```
-----------------------
(Z1 + Z2)Z3
------------- + Z4 + Z5
Z1 + Z2 + Z3
```

and

Z1: source Z
Z2: grid-cathode parasitic Z
Z3: cathode circuit Z
Z4: cathode-plate parasitic Z
Z5: load Z

73's
Richard Clark, KB7QHC

3991. Re: 2 Meter QUAD - Balun / SWR question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 21:05:16 UTC
From: Kevin Hastings <myfamilydotcom@hotmail.com>
Message-ID: <gS_jg.442$Zk3.11083@ursa-nb00s0.nbnet.nb.ca>
Source record: 57933

Thanks John - I may have thought the balun assembly was somehow involved.
I'm new to the group and a fairly new amateur, and your respone was the only
one that dealt with my question.

What I thought was a relevant description was mis-read as "excess verbiage"
I guess. I'll try trimming the loop, and hope also to cure the electronic
thermostat problem which is fairly significant.

73

Kevin

e"John Ferrell" <johnferrell@sprintmail.com> wrote in message
news:frou82lobemh1nuqkh2o95dqfr8m9mm0f3@4ax.com...
> If the Swr is better below 145 than above the radiator must be over
> length. You need to trim it or match it. If you are measuring through
> lot of coax the match at the antenna is a lot worse than 3:1.
>
> Any kind of choke arrangement amounts to working on the wrong problem
> to me.
>
> On Mon, 12 Jun 2006 19:17:44 GMT, "K. Hastings"
> <myfamilydotcom@hotmail.com> wrote:
>
>
> John Ferrell W8CCW

3992. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 21:56:53 UTC
From: w8ji@akorn.net
Message-ID: <1150322213.586450.142880@y41g2000cwy.googlegroups.com>
Source record: 57934

Tom Donaly wrote:

> have been charged up to high voltages by natural means. You might want
> to read the articles, Cecil, before you speculate. It could only improve
> your mind.
> 73,
> Tom Donaly, KA6RUH

.....or doing some actual experiments like I have done.

73 Tom

3993. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 22:19:17 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <FX%jg.114874$dW3.87375@newssvr21.news.prodigy.com>
Source record: 57935

Tom Donaly wrote:
> Yes, but there are fewer particles.

I don't think that is true. Dust is sucked high into the air during the formation of a dust storm. I have seen a wall of dust hundreds of feet high in Arizona. It didn't look any denser closer to the ground. In any case, it is not the number of particles that matter but the average charge per particle which increases with wind speed.
--
73, Cecil http://www.qsl.net/w5dxp

3994. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 22:22:27 UTC
From: clifto <clifto@gmail.com>
Message-ID: <3qe6m3-0iv.ln1@remote.clifto.com>
Source record: 57936
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

```
RHF wrote:
> Dave wrote:
> "The SWR with the apostrophe s is a grammatical error.
> The apostrophe s indicates that the SWR is possessive,
>
> - - - - - - - - - - - - - - - - - - - - - - - - - - -
>
> PLURALS - When you add an 's' to make a plural,
> it NEVER takes an apostrophe.
> Never. There are no exceptions.

As much as I hate plurals formed with apostrophes, you're wrong.

--
Britney Spears' Guide to Semiconductor Physics
<http://britneyspears.ac/lasers.htm>
```

3995. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 22:23:17 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <p%%jg.114876$dW3.88501@newssvr21.news.prodigy.com>
Source record: 57937

w8ji@akorn.net wrote:
> .....or doing some actual experiments like I have done.

I have been reporting actual experiences from when
I lived in the Arizona desert and I can guarantee
you that charged particles exist in the dry-air
desert wind. Where does the charge on an antenna
come from if not from charged particles?
--
73, Cecil http://www.qsl.net/w5dxp

3996. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 22:25:01 UTC
From: clifto <clifto@gmail.com>
Message-ID: <tue6m3-0iv.ln1@remote.clifto.com>
Source record: 57938
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Sal M. Onella wrote:
> 3. Despite the absolute correctness of the apostrophe for the plural of
> numbers and letters, I see a lot of acronyms and abbreviations made plural
> by the addition of an "s" without the apostrophe and I don't flinch.

From what I remember, that's not universally incorrect.

Oh, and I'm taking your apostrophe quiz, and it appears there's an error
in the "correct" choice: (B) uses "its" as the contraction for "it is".
So the answer to 17 should be "None of the above". (I scored 100% also.)

Incidental note: I've never understood how people who use "it's" as a
possessive never even think to use "hi's" (though some use "her's" and
"their's").

--
Britney Spears' Guide to Semiconductor Physics
<http://britneyspears.ac/lasers.htm>

3997. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 22:38:58 UTC
From: clifto <clifto@gmail.com>
Message-ID: <2pf6m3-kiv.ln1@remote.clifto.com>
Source record: 57939
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

Cecil Moore wrote:
> Did you know that when Jesus prayed to God in
> Aramaic, he probably prayed to "Allah"?

I doubt it. The word Allah appears to be a conglomeration of "al elah",
meaning "the god".

--
Britney Spears' Guide to Semiconductor Physics
<http://britneyspears.ac/lasers.htm>

3998. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 22:52:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Jq0kg.114901$dW3.50028@newssvr21.news.prodigy.com>
Source record: 57940
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

clifto wrote:
> I've never understood how people who use "it's" as a
> possessive never even think to use "hi's"

I usually send two hi's. ....
--
73, Cecil http://www.qsl.net/w5dxp

3999. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 22:58:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Yv0kg.114903$dW3.106470@newssvr21.news.prodigy.com>
Source record: 57941
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

clifto wrote:
> Cecil Moore wrote:
>> Did you know that when Jesus prayed to God in
>> Aramaic, he probably prayed to "Allah"?
>
> I doubt it. The word Allah appears to be a conglomeration of "al elah",
> meaning "the god".

A well educated friend told me that the Aramaic word
for "God" is "Allah". It would be nice to know if
he was wrong about that.

Aren't Yahweh, Jehovah, and Allah all the same God-head?
--
73, Cecil http://www.qsl.net/w5dxp

4000. Re: Antennas and the FCC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 22:58:39 UTC
From: "dale.j. " <nos.pamz@nospam.com>
Message-ID: <nos.pamz-98447E.17581114062006@news-rdr-03.rdc-kc.rr.com>
Source record: 57942

In article <W6CdnYNZar6-kQ3ZnZ2dnUVZ_tGdnZ2d@comcast.com>,
jimbo <jimbo62@spamex.com> wrote:

> A few years ago there was a flurry of activity regarding measurement
> of radiation in the immediate area around the antenna/station. As I
> recall, anything under 100 watts was exempt from the requirements.
>
> Can someone clarify the situation?
>
> Thanks, jimbo

I'd suggest you comply with the rules. It's easy and more than likely
you will pass muster. I used this site for my evaluation:

http://n5xu.ae.utexas.edu/

I also made copies of my antenna specs and attached them to the report,
then filed.

--
Email: dalej2@mac.com

4001. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 23:25:54 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-1C875E.16255414062006@newsclstr02.news.prodigy.com>
Source record: 57944
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc

In article <Yv0kg.114903$dW3.106470@newssvr21.news.prodigy.com>,
Cecil Moore <mycall@hotmail.com> wrote:

> clifto wrote:
> > Cecil Moore wrote:
> >> Did you know that when Jesus prayed to God in
> >> Aramaic, he probably prayed to "Allah"?
> >
> > I doubt it. The word Allah appears to be a conglomeration of "al elah",
> > meaning "the god".
>
> A well educated friend told me that the Aramaic word
> for "God" is "Allah". It would be nice to know if
> he was wrong about that.
>
> Aren't Yahweh, Jehovah, and Allah all the same God-head?

I know Clifto posted from rec.radio.shorwave but please drop the group
from the thread thanks.

--
Telamon
Ventura, California

4002. Modernization: Appliance Operator 1st Class, Appliance Operator 2nd Class, Appliance Op...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 23:25:55 UTC
From: Morse or ReMorse <my.email@no.spam>
Message-ID: <7W0kg.5842$lf4.5581@newsread1.news.pas.earthlink.net>
Source record: 57943
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.swap

Modernizing ham radio:

No more CW, easier to pass written exams. We Should change the names: Tech, General & Extra too. No sense hanging with the dinosaurs when there's no need to be proficient at anything anymore:

Appliance Operator 1st Class, Appliance Operator 2nd Class

Appliance Operator 3rd Class, No Class

Now Ten twenty-seven to channel one nine to get a preview of the new classes. I'm ten seven. Any one got a ten thirty-six hello.

Sorry for the CB lingo, I'm just getting practiced up so I can understand people when the CW test goes away.

You really want modernization?

Remorse

4003. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 23:30:28 UTC
From: an Old friend <kb9rqz@amsat.org>
Message-ID: <1150327828.744895.4840@r2g2000cwb.googlegroups.com>
Source record: 57945
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.swap

Morse or ReMorse wrote:
> Modernizing ham radio:
why don't you find some other place for your bile

4004. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 23:40:34 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <S71kg.97383$H71.30760@newssvr13.news.prodigy.com>
Source record: 57946

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Yes, but there are fewer particles.
>
>
> I don't think that is true. Dust is sucked high into
> the air during the formation of a dust storm. I
> have seen a wall of dust hundreds of feet high in
> Arizona. It didn't look any denser closer to the
> ground. In any case, it is not the number of
> particles that matter but the average charge per
> particle which increases with wind speed.

How do you know that?
73,
Tom Donaly, KA6RUH

4005. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-14 23:44:51 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Tb1kg.24308$VE1.15489@newssvr14.news.prodigy.com>
Source record: 57971

w8ji@akorn.net wrote:

> Tom Donaly wrote:
>
>
>>have been charged up to high voltages by natural means. You might want
>>to read the articles, Cecil, before you speculate. It could only improve
>>your mind.
>>73,
>>Tom Donaly, KA6RUH
>
>
> .....or doing some actual experiments like I have done.
>
> 73 Tom
>

That would be even better, although I'm not sure it's legal
in Texas.
73,
Tom Donaly, KA6RUH

4006. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 00:00:42 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Kq1kg.24309$VE1.22411@newssvr14.news.prodigy.com>
Source record: 57947

Cecil Moore wrote:

> w8ji@akorn.net wrote:
>
>> .....or doing some actual experiments like I have done.
>
>
> I have been reporting actual experiences from when
> I lived in the Arizona desert and I can guarantee
> you that charged particles exist in the dry-air
> desert wind. Where does the charge on an antenna
> come from if not from charged particles?

It probably comes from charged particles and the earth's
electric field, but you won't know anything for sure unless
you can come up with a mechanism for showing how dust particles
get their charge in the first place. Then you have to measure
it. In some old issue of Scientific American there's an article
showing how to make a simple gadget to measure the electric
charge on a raindrop (about .3 volt, average). I expect you
could use the same idea to measure the charge on a dust particle
during a dust storm. Then you'd have to calculate. That shouldn't be
too hard for you to do, Cecil, you're an engineer.
73,
Tom Donaly, KA6RUH

4007. Re: newbie UHF antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 00:12:05 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <pB1kg.46516$4L1.31219@newssvr11.news.prodigy.com>
Source record: 57948

Ht 1000 handhelds (not to be confused with the
Mt-1000/ht-600) uses a SMA connector to its rubber
duck antenns. therefore, get a sma male to a BNC
male, (or other standard fitting) for an adaptor!
The MT1000, and HT 600 series has a adaptor
available from motorola. As info, Jim NN7K

Bob Miller wrote:
> On Wed, 14 Jun 2006 13:04:22 -0400, Mike <meb58optonline.net> wrote:
>
>
>>Hi...I have a mototola ht1000 uhf walkie talkie. I would like to
>>install an outdoor antenna on my house to increase my range. Can
>>someone please advise me to a site or any other info that could help
>>me out? It currently has a small rubber antenna on it that I would
>>like to improve on when Im home....Thank You.....
>
>
> If this is a business service radio, I'd imagine most Motorola or
> business radio dealers would have a "base station" type of antenna you
> could hook to the walkie talkie with the proper cable and connector.
>
> bob
> k5qwg

4008. Re: Modernization: Appliance Operator 1st Class, Appliance Operator 2nd Class, Appliance Op...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 00:26:22 UTC
From: Zombie Wolf <zmbwf@gwi.net>
Message-ID: <FpGdneoOz8-3NA3ZnZ2dnUVZ_sednZ2d@giganews.com>
Source record: 57949
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.swap

Sure I want modernization. I dont have to put up with any of it. I havent been on the air for at least ten years. I renewed the license, then put it away.
The ham bands are gonna go away, and soon. They are gonna go the same way that respect for your fellow amateur went, cooperation went, etc. The FCC has a vested interest in shutting the ham bands down, since their funding got cut years ago. BPL looked like a winning plan to shut it all down so they could sell it off, but that flopped, since it also interfered with other emergency services, like police and fire. so, the easiest way to shut it down for good is to just hand it over to the cb crowd. They will make a complete mess out of it, and they wont waste any time doing it, either.

Then the FCC can improve their funding, considerably. Just think, the fines from the violations alone will come to millions. Did you really think that the FCC was looking for "new innovations and inventions" coming out of ham radio ? This is the digital age, guy.
In the meantime, enjoy these tirades from folks about the "fat-amateur". Me, I pump iron every day, and could probably knock most of them on their keester without even breaking a sweat, and im twice their age. The irony of them opening their mouths has not escaped me, these new, modern "sensitive" guys that are doing 99% of the ranting on this subject. It begs the question: Just which pair of their mother's panties are they wearing today ?
Ham Radio started to suck about ten years ago, and it is going to continue the downhill slide. Get tused to it.

And before you start in on me, lemme tell ya fella, i was a cw operator, and i also built most of my own stuff. It just ain't worth it any more. Period.

"Morse or ReMorse" <my.email@no.spam> wrote in message
news:7W0kg.5842$lf4.5581@newsread1.news.pas.earthlink.net...
> Modernizing ham radio:
>
> No more CW, easier to pass written exams. We Should change the
> names: Tech, General & Extra too. No sense hanging with the
> dinosaurs when there's no need to be proficient at anything
> anymore:
>
> Appliance Operator 1st Class, Appliance Operator 2nd Class
>
> Appliance Operator 3rd Class, No Class
>
> Now Ten twenty-seven to channel one nine to get a preview of the new
> classes. I'm ten seven. Any one got a ten thirty-six hello.

>
> Sorry for the CB lingo, I'm just getting practiced up so I can understand
> people when the CW test goes away.
>
> You really want modernization?
>
>
> Remorse

4009. Re: newbie UHF antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 00:26:29 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <VO1kg.46520$4L1.13173@newssvr11.news.prodigy.com>
Source record: 57950

OOPS , tis a SMA FEMALE connector you want! (this
also works for signal generator/wattmeter) to a
(BNC/or UHF) adaptor ! About $10 bux for high
quality, but maybe cheaper for the nickel plated
variety -- Jim

Jim - NN7K wrote:
> Ht 1000 handhelds (not to be confused with the Mt-1000/ht-600) uses a
> SMA connector to its rubber
> duck antenns. therefore, get a sma male to a BNC
> male, (or other standard fitting) for an adaptor!
> The MT1000, and HT 600 series has a adaptor available from motorola. As
> info, Jim NN7K
>
> Bob Miller wrote:
>
>> On Wed, 14 Jun 2006 13:04:22 -0400, Mike <meb58optonline.net> wrote:
>>
>>
>>> Hi...I have a mototola ht1000 uhf walkie talkie. I would like to
>>> install an outdoor antenna on my house to increase my range. Can
>>> someone please advise me to a site or any other info that could help
>>> me out? It currently has a small rubber antenna on it that I would
>>> like to improve on when Im home....Thank You.....
>>
>>
>>
>> If this is a business service radio, I'd imagine most Motorola or
>> business radio dealers would have a "base station" type of antenna you
>> could hook to the walkie talkie with the proper cable and connector.
>>
>> bob
>> k5qwg

4010. Re: Modernization: Appliance Operator 1st Class, Appliance Operator 2nd Class, Appliance Op...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 00:38:53 UTC
From: Brian Hill <good@it.net>
Message-ID: <x_1kg.1193$Rj.966@fe02.lga>
Source record: 57951
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.swap

"Morse or ReMorse" <my.email@no.spam> wrote in message
news:7W0kg.5842$lf4.5581@newsread1.news.pas.earthlink.net...
> Modernizing ham radio:
>
> No more CW, easier to pass written exams. We Should change the
> names: Tech, General & Extra too. No sense hanging with the
> dinosaurs when there's no need to be proficient at anything
> anymore:
>
> Appliance Operator 1st Class, Appliance Operator 2nd Class
>
> Appliance Operator 3rd Class, No Class
>
> Now Ten twenty-seven to channel one nine to get a preview of the new
> classes. I'm ten seven. Any one got a ten thirty-six hello.
>
> Sorry for the CB lingo, I'm just getting practiced up so I can understand
> people when the CW test goes away.
>
> You really want modernization?
>
>
> Remorse

Don't be chickenshit. Be a man and put your name to it! Since you cross
posted it to three million groups.

BH

4011. Re: Modernization: Appliance Operator 1st Class, Appliance Operator 2nd Class, Appliance Op...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 00:54:34 UTC
From: James Crow <JCrow8@No.n.org>
Message-ID: <4490a26c$0$3582$88260bb3@free.teranews.com>
Source record: 57952
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.cb

"Zombie Wolf" <zmbwf@gwi.net> wrote in message
news:FpGdneoOz8-3NA3ZnZ2dnUVZ_sednZ2d@giganews.com...
> Sure I want modernization. I dont have to put up with any of it. I havent
> been on the air for at least ten years. I renewed the license, then put it
> away.
> The ham bands are gonna go away, and soon. They are gonna go the same way
> that respect for your fellow amateur went, cooperation went, etc. The FCC
> has a vested interest in shutting the ham bands down, since their funding
> got cut years ago. BPL looked like a winning plan to shut it all down so
> they could sell it off, but that flopped, since it also interfered with
> other emergency services, like police and fire. so, the easiest way to
> shut it down for good is to just hand it over to the cb crowd. They will
> make a complete mess out of it, and they wont waste any time doing it,
> either.
>
> Then the FCC can improve their funding, considerably. Just think, the
> fines from the violations alone will come to millions. Did you really
> think that the FCC was looking for "new innovations and inventions" coming
> out of ham radio ? This is the digital age, guy.
> In the meantime, enjoy these tirades from folks about the "fat-amateur".
> Me, I pump iron every day, and could probably knock most of them on their
> keester without even breaking a sweat, and im twice their age. The irony
> of them opening their mouths has not escaped me, these new, modern
> "sensitive" guys that are doing 99% of the ranting on this subject. It
> begs the question: Just which pair of their mother's panties are they
> wearing today ? Ham Radio started to suck about ten years ago, and it is
> going to continue the downhill slide. Get tused to it.
>
> And before you start in on me, lemme tell ya fella, i was a cw operator,
> and i also built most of my own stuff. It just ain't worth it any more.
> Period.
>
>
> "Morse or ReMorse" <my.email@no.spam> wrote in message
> news:7W0kg.5842$lf4.5581@newsread1.news.pas.earthlink.net...
>> Modernizing ham radio:
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>> names: Tech, General & Extra too. No sense hanging with the
>> dinosaurs when there's no need to be proficient at anything
>> anymore:
>>

>> Appliance Operator 1st Class, Appliance Operator 2nd Class
>>
>> Appliance Operator 3rd Class, No Class
>>
>> Now Ten twenty-seven to channel one nine to get a preview of the new
>> classes. I'm ten seven. Any one got a ten thirty-six hello.
>>
>> Sorry for the CB lingo, I'm just getting practiced up so I can understand
>> people when the CW test goes away.
>>
>> You really want modernization?
>>
>>
>> Remorse
>
well said,sir.

--
Posted via a free Usenet account from http://www.teranews.com

4012. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 01:00:00 UTC
From: w8ji@akorn.net
Message-ID: <1150333200.568710.156680@u72g2000cwu.googlegroups.com>
Source record: 57953

Tom Donaly wrote:
> It probably comes from charged particles and the earth's
> electric field, but you won't know anything for sure unless
> you can come up with a mechanism for showing how dust particles
> get their charge in the first place.

When I was working on repeater systems trying to figure out how to make an omnidirectional antenna (mounted ABOVE the tower or mounted above other things on a roof) not get wiped out by p-static I talked to an person at NASA who delt with problems NASA had.

I've forgotten most of the numbers he quoted for electric field intensity as height increased and the effects of things that modified the impedance of that voltage, but I left those conversations and the experiences with an entirely different view than when I entered.

Moving the antenna just a few feet lower than other objects made a large difference in p-static, and that was at heights between 200 and 800 feet above ground.

It's a nice guess by Cecil that there is less wind or less particles at 180 feet rather than 200, or 780 feet rather than 800 AGL, but in real life there probably isn't much difference.

When people spend a few thousand bucks changing to dc grounded antennas, antennas in radomes (Super Stationmasters) with only a metal tip exposed, and folded dipoles... only to find the only thing that helps is making the antenna NOT the tallest or most protruding point....it's tough to accept something that didn't ever make a difference.

Of course if I viewed the world through a 80 meter dipole at 50 feet with only dust to worry about and never talked to the fellow at NASA, or if I never had multiple antennas on multiple tall towers or worked on all those commercial systems, I might agree with Cecil.

All the problems I saw related to corona.

73 Tom

4013. Re: Modernization: Appliance Operator 1st Class, Appliance Operator 2nd Class, Appliance Op...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 01:04:28 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <1291cgtkguuhv43@corp.supernews.com>
Source record: 57954
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.swap

"Zombie Wolf" <zmbwf@gwi.net> wrote in message
news:FpGdneoOz8-3NA3ZnZ2dnUVZ_sednZ2d@giganews.com...
> Sure I want modernization. I dont have to put up with any of it. I havent
> been on the air for at least ten years. I renewed the license, then put it
> away.
> The ham bands are gonna go away, and soon. They are gonna go the same way
> that respect for your fellow amateur went, cooperation went, etc. The FCC
> has a vested interest in shutting the ham bands down, since their funding
> got cut years ago. BPL looked like a winning plan to shut it all down so
> they could sell it off, but that flopped, since it also interfered with
> other emergency services, like police and fire. so, the easiest way to
> shut it down for good is to just hand it over to the cb crowd. They will
> make a complete mess out of it, and they wont waste any time doing it,
> either.
>
> Then the FCC can improve their funding, considerably. Just think, the
> fines from the violations alone will come to millions. Did you really
> think that the FCC was looking for "new innovations and inventions" coming
> out of ham radio ? This is the digital age, guy.

I doubt that the CBer would take over on all bands. One of the attractions
of CB is the cost of equipment. The FCC will probably sell off the unused
bandwidths to private organizations such as cell companies and repeaters for
the service industry to name a few. They can then be done with all the
headaches with ham/cb enforcement and concentrate on other, more lucrative
areas, such as Janet Jackson's half time nipple exposure.

4014. Re: Modernization: Appliance Operator 1st Class, Appliance Operator 2nd Class, Appliance Op...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 01:23:30 UTC
From: hamm_burger_1@yahoo.com
Message-ID: <1150334610.003660.157380@g10g2000cwb.googlegroups.com>
Source record: 57955
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.CB

DR DEATH WOULD ALSO BENEFIT FROM EASIER TESTING. THAT PESKY NO CODE
THEORY IS A MOTHERFUCKER FOR HIM.
DrDeath wrote:
> "Zombie Wolf" <zmbwf@gwi.net> wrote in message
> news:FpGdneoOz8-3NA3ZnZ2dnUVZ_sednZ2d@giganews.com...
> > Sure I want modernization. I dont have to put up with any of it. I havent
> > been on the air for at least ten years. I renewed the license, then put it
> > away.
> > The ham bands are gonna go away, and soon. They are gonna go the same way
> > that respect for your fellow amateur went, cooperation went, etc. The FCC
> > has a vested interest in shutting the ham bands down, since their funding
> > got cut years ago. BPL looked like a winning plan to shut it all down so
> > they could sell it off, but that flopped, since it also interfered with
> > other emergency services, like police and fire. so, the easiest way to
> > shut it down for good is to just hand it over to the cb crowd. They will
> > make a complete mess out of it, and they wont waste any time doing it,
> > either.
> >
> > Then the FCC can improve their funding, considerably. Just think, the
> > fines from the violations alone will come to millions. Did you really
> > think that the FCC was looking for "new innovations and inventions" coming
> > out of ham radio ? This is the digital age, guy.
>
> I doubt that the CBer would take over on all bands. One of the attractions
> of CB is the cost of equipment. The FCC will probably sell off the unused
> bandwidths to private organizations such as cell companies and repeaters for
> the service industry to name a few. They can then be done with all the
> headaches with ham/cb enforcement and concentrate on other, more lucrative
> areas, such as Janet Jackson's half time nipple exposure.

4015. Rget help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 01:31:05 UTC
From: an Old friend <kb9rqz@amsat.org>
Message-ID: <1150335065.760099.218370@y41g2000cwy.googlegroups.com>
Source record: 57956
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.CB

hamm_burger_1@yahoo.com wrote:
> DR DEATH WOULD ALSO BENEFIT FROM EASIER TESTING. THAT PESKY NO CODE
> THEORY IS A MOTHERFUCKER FOR HIM.
rumor has it he has a tech license but rarely uses it

4016. Don't do what I did.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 01:38:25 UTC
From: VE2CJW <ve2cjw@videotron.ca.nospam>
Message-ID: <eS2kg.35910$G97.673305@weber.videotron.net>
Source record: 57957

I thought I had a coax problem. Every time I tried to check the dc resistance of a length of coax not connected to anything, I always got a reading around 1.25 meg. This is not a short nor open line so I checked another length and got similar results, so I was really baffled. The odd thing is that both of these coaxes work perfectly when connected to an antenna. I finally found out what I was doing wrong. I was using probes that I had to hold with my fingers, so I was really measuring the dc resistance between my fingers. After watching my fingers, I get infinite dc resistance like I should. This one really baffled me for some time, I don't wish something like that to happen again.

73 Mike.

4017. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 02:04:48 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <4f3kg.147932$F_3.68346@newssvr29.news.prodigy.net>
Source record: 57958

Tom Donaly wrote:
> How do you know that?

Simple physics. I don't believe in magic.
--
73, Cecil http://www.qsl.net/w5dxp

4018. Re: Modernization: Appliance Operator 1st Class, Appliance Operator 2nd Class, Appliance Op...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 02:14:27 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4490c283$0$6147$39cecf19@news.twtelecom.net>
Source record: 57959
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.swap

Morse or ReMorse wrote:
> Modernizing ham radio:
>
> No more CW, easier to pass written exams. We Should change the
> names: Tech, General & Extra too. No sense hanging with the
> dinosaurs when there's no need to be proficient at anything
> anymore:
>
> Appliance Operator 1st Class, Appliance Operator 2nd Class
>
> Appliance Operator 3rd Class, No Class
>
> Now Ten twenty-seven to channel one nine to get a preview of the new
> classes. I'm ten seven. Any one got a ten thirty-six hello.
>
> Sorry for the CB lingo, I'm just getting practiced up so I can understand
> people when the CW test goes away.
>
> You really want modernization?
>
>
> Remorse

GOAT

Which means GO Away Troll, for those that aren't up on the equivalent of
morse code on newsgroups.

tom
K0TAR

4019. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 02:16:30 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <2q3kg.147934$F_3.147440@newssvr29.news.prodigy.net>
Source record: 57960

w8ji@akorn.net wrote:
> Of course if I viewed the world through a 80 meter dipole at 50 feet
> with only dust to worry about and never talked to the fellow at NASA,
> or if I never had multiple antennas on multiple tall towers or worked
> on all those commercial systems, I might agree with Cecil.

When the only tool one has is a corona hammer, all problems
look like corona nails. Fortunately, I am familiar with both
corona problems and dry-air wind-driven charged particle
problems.

> All the problems I saw related to corona.

At least that's what you assumed. Just because all the cars
parked in your driveway are white doesn't mean all the cars
in the world are white.
--
73, Cecil http://www.qsl.net/w5dxp

4020. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 02:53:28 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <IY3kg.24333$VE1.8395@newssvr14.news.prodigy.com>
Source record: 57961

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> How do you know that?
>
>
> Simple physics. I don't believe in magic.

I thought simple physics was magic.
73,
Tom Donaly, KA6RUH

4021. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 03:00:00 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Q24kg.24335$VE1.2534@newssvr14.news.prodigy.com>
Source record: 57962

Cecil Moore wrote:

> w8ji@akorn.net wrote:
>
>> Of course if I viewed the world through a 80 meter dipole at 50 feet
>> with only dust to worry about and never talked to the fellow at NASA,
>> or if I never had multiple antennas on multiple tall towers or worked
>> on all those commercial systems, I might agree with Cecil.
>
>
> When the only tool one has is a corona hammer, all problems
> look like corona nails. Fortunately, I am familiar with both
> corona problems and dry-air wind-driven charged particle
> problems.
>
>> All the problems I saw related to corona.
>
>
> At least that's what you assumed. Just because all the cars
> parked in your driveway are white doesn't mean all the cars
> in the world are white.

Whether it's dust, snow, or the atmospheric electric field charging the antenna, the noise is still corona discharge. At least that's what most of the sources say. Tom says height makes all the difference. That would make a lot of sense given the way the earth's electric field is structured.
73,
Tom Donaly, KA6RUH

4022. Rget help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 03:00:06 UTC
From: an old freind <kb9rqz___ars@hotmail.com>
Message-ID: <1150340406.435975.25870@r2g2000cwb.googlegroups.com>
Source record: 57963
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.swap

Tom Ring wrote:
> Morse or ReMorse wrote:
> > Modernizing ham radio:

> GOAT
>
> Which means GO Away Troll, for those that aren't up on the equivalent of
> morse code on newsgroups.
>
> tom
> K0TAR

4023. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 03:18:30 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ak4kg.46574$4L1.34356@newssvr11.news.prodigy.com>
Source record: 57964

Tom Donaly wrote:
> Whether it's dust, snow, or the atmospheric electric field charging the
> antenna, the noise is still corona discharge. At least that's what most
> of the sources say.

The argument is not what it is called. The argument is whether
charged dry-air dust particles can transfer charge to bare-wire
antennas.
--
73, Cecil http://www.qsl.net/w5dxp

4024. Re: Modernization: Appliance Operator 1st Class, Appliance Operator 2nd Class, Appliance Op...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 03:25:08 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4490D314.3050001@fuse.net>
Source record: 57965
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.swap

Zombie Wolf wrote:
>
>
>
Are you tellin'us all the zombie troof?

PS, I love ham radio all over again (missing for 30 years)
I'm building an Elecraft K-2, having a great time. Monitoring the bands
on a Grundig...sounds good to me. Not the same as 30 years ago, but
then again, Frank Zappa is dead, too.

John
AB8WH

4025. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 04:08:44 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4490DD4C.8020706@fuse.net>
Source record: 57966

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Whether it's dust, snow, or the atmospheric electric field charging
>> the antenna, the noise is still corona discharge. At least that's what
>> most
>> of the sources say.
>
>
> The argument is not what it is called. The argument is whether
> charged dry-air dust particles can transfer charge to bare-wire
> antennas.
Man, you guys really crack me up. I must admit I kinda enjoy reading
your posts, though.

\There must be some source citing experimental evidence of charged
particles in a dust storm transferring their charges to a collector of
some sort (antenna). I alluded earlier to a practical use of such
collection...
Cecil, you said you have no idea how many Joules were represented (or
something along those lines).

Seems to me, that Joules per unit time is precisely the measure that's
needed in this "analysis". Is this Voltage, or am I mistaken?

Compare the density of the dust cloud with the charge collected. There
should be a correlation. What about velocity of the cloud: more charges
transferred per unit time.

If your rug was scorched, some "work" was done. My college physiscs is
only a nightmare away: what is the relation of Joules to work?

What was the other issue: number of particles versus the charge per
particle? Got me.

As the particles are swept off the surface of the desert, would their
charge (per particle) be distributed (as Gauss or some other)?

I would think the # particles would be more important.

If a given volume of dust particles moves through the field of an
antenna (it would have a field, wouldn't it? ... even if grounded?
perhaps field is the wrong word), increasing velocity of the volume
would mean more particles per unit time passing the antenna. Hence more
charge transferred: more charge per unit time. Again, is this Voltage?

I guess I can't part with my trickle charger idea.

You guys have at it. Thanks for letting me butt in.

John

4026. Re: Don't do what I did.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 04:21:13 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1150345273.427051.74190@r2g2000cwb.googlegroups.com>
Source record: 57967

VE2CJW wrote:
> I thought I had a coax problem. Every time I tried to check the dc
> resistance of a length of coax not connected to anything, I always got a
> reading around 1.25 meg. This is not a short nor open line so I checked
> another length and got similar results, so I was really baffled. The odd
> thing is that both of these coaxes work perfectly when connected to an
> antenna. I finally found out what I was doing wrong. I was using probes that
> I had to hold with my fingers, so I was really measuring the dc resistance
> between my fingers. After watching my fingers, I get infinite dc resistance
> like I should. This one really baffled me for some time, I don't wish
> something like that to happen again.
>
> 73 Mike.

Of course if it WAS a megohm shunt at the operating frequency, you wouldn't even notice it. But yes, your advice goes equally for other resistance checks. Don't expect to evaluate even a 10k resistor accurately by holding the test leads on it with your fingers. I have some voltmeter test leads with "grabber" hooks that I just love for things like that--these particular ones have points that work like regular probes too.

If you really do want to check the coax's high resistance with your fingers, charge up a 30 meter or so length to about a kilovolt, let it rest with no applied voltage for several minutes, and see if it will "zap" you when you touch across the conductors. If you're crazy enough to try it, do NOT do it with two hands, because there's some danger with the current going through your upper body... If the line stays charged to, say, 9/10 of the original voltage for an hour, what resistance is that? Well, it would be roughly a ten hour time constant, and if it's 50-ohm line with solid polyethylene dielectric, it will be about 3000pF capacitance, so the resistance would be about 10^13 ohms. Don't be surprised if it's actually better than that, even...I have a couple metalized polypropylene caps I charged up a few years ago that I take out and measure every once in a while (very carefully with a very high impedance volt meter), and they are showing a self-discharge time constant in excess of 50 YEARS.

Cheers,
Tom

4027. Re: Modernization: Appliance Operator 1st Class, Appliance Operator 2nd Class, Appliance Op...

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 04:37:35 UTC
From: Al Klein <rukbat@pern.invalid>
Message-ID: <eto192hiemfa79bdka2l05fp7cq982qseq@4ax.com>
Source record: 57968
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.swap

On Wed, 14 Jun 2006 21:14:27 -0500, Tom Ring <news0002@taring.org>
wrote:

>Which means GO Away Troll, for those that aren't up on the equivalent of
>morse code on newsgroups.

I forget his call, he used to live in Neptune, NJ, but he ended his
transmissions with "No lids, no kids, no space cadets". I guess
that's a more colorful version of GOAT .... ..

4028. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 04:43:36 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <Zz5kg.28835$QP4.22654@fed1read12>
Source record: 57969
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap

"Michael Coslo" <mjc5@psu.edu> wrote in message
news:e6n4t5$16n4$1@f04n12.cac.psu.edu...
> Sal M. Onella wrote:
> > "Michael Coslo" <mjc5@psu.edu> wrote in message
> > news:e6jvip$1a4e$1@f04n12.cac.psu.edu...
> >> Sal M. Onella wrote:
> >
> > < snip >
> >>> I learn new tricks every day. Morse Code isn't one of them.
> >>
> >> The real issue is probably that HF privileges are probably just not
that
> >> important to you.
> >
> > < snip >
> >
> > Thanks for explaining it so clearly. That just makes everything right.
> >
> >
>
>
> Hey, no prob.

I WAS BEING SARCASTIC AND I THINK IT WENT RIGHT OVER YOUR HEAD

> It isn't an insult to anyone to say that HF access isn't important
> enough to them that they will take the time and effort to learn Morse
> code.

YES IT IS. I'VE WASTED HUNDREDS OF HOURS TRYING TO LEARN MORSE CODE AND I
CAN'T DO IT. YOU'VE TRIVIALIZED ALL MY ANGER AND FRUSTRATION. YOU
DISMISSED FIFTEEN YEARS OF FRUITLESS EFFORT IN TWO HURTFUL SENTENCES.
YOU'RE NO HELP.

4029. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 05:18:14 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <1291rcqk2o9f2f9@corp.supernews.com>
Source record: 57970

jawod wrote:
> . . .
> Seems to me, that Joules per unit time is precisely the measure that's
> needed in this "analysis". Is this Voltage, or am I mistaken?

Joules (energy) per unit time is power, not voltage.
>
> Compare the density of the dust cloud with the charge collected. There
> should be a correlation. What about velocity of the cloud: more charges
> transferred per unit time.

Charge per unit time is current.

> If your rug was scorched, some "work" was done. My college physiscs is
> only a nightmare away: what is the relation of Joules to work?

The joule is a unit of energy. Work is energy, so it can also be
expressed in joules.

> . . .
> If a given volume of dust particles moves through the field of an
> antenna (it would have a field, wouldn't it? ... even if grounded?

An antenna creates an electrostatic field if charged, but an
electromagnetic field only if that charge is being accelerated, that is,
if it carries current which changes with time.

> perhaps field is the wrong word), increasing velocity of the volume
> would mean more particles per unit time passing the antenna. Hence more
> charge transferred: more charge per unit time. Again, is this Voltage?

No, charge per unit time is current.

>. . .

It's impossible to contribute much to the understanding of complex
phenomena without first gaining an understanding of the most basic
principles.

Roy Lewallen, W7EL

4030. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 10:37:38 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1150367858.459245.212950@f6g2000cwb.googlegroups.com>
Source record: 57972
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.swap

Got AIDS from an old friend wrote:
> Jerry wrote:
> > "Slow Code" <my.mail@no.spam> wrote in message
> > news:WpEhg.2725$lp.611@newsread3.news.pas.earthlink.net...
> > > No more automatic renewals. Individuals must retest and pass all elements
>
> > I don't really like it that CW is going away, but it WILL go away so far as
> > necessity goes same way we don't commute to work in our '56 Fairlane. So we
> > ADAPT to change instead of vainly clinging to the way WE think it should
> > stay forever and a day. When we are dead and gone, the world will be vastly
> > different than we would've remembered it!
> >
> > 73
> indeed well said

STFU, Marqueer, you can't even do 5 wpm morse code!

4031. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 10:39:04 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1150367943.972060.219270@f6g2000cwb.googlegroups.com>
Source record: 57973
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

```
assraped by an old freind wrote:
> billy_shittydrawers_smith@yahoo.com wrote:
> > sodomized by an_old_friend wrote:
> > > Eric the hair Oyen wrote:
> > > > "an_old_friend" <konstans@hotmail.com> wrote in message
> > > > news:1150233801.005719.10130@u72g2000cwu.googlegroups.com...
> > > > >
> > > > I am a man not a mindless sheep
> > > > >
> > > You and Eric have sex with men and sheep.
> > > I don't know or care who or what Eric may have sex with it is none of
> > > my busness and none of yours
> >
> > Marqueer outs his perverted homosexual tendencies again!
> get

Don't get help for your AIDS, just die from it.
```

4032. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 13:02:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <nTckg.24373$VE1.21758@newssvr14.news.prodigy.com>
Source record: 57974

Tom Donaly wrote:
> Whether it's dust, snow, or the atmospheric electric field charging the
> antenna, the noise is still corona discharge. At least that's what most
> of the sources say.

It is my understanding that the air around a conductor must
ionize for it to be defined as corona. Obviously, there is
a time when charge is transferred to the antenna before
ionization (corona) occurs. Corona is defined as a discharge
function. The charging function must necessarily occur before
corona. If the charge is not allowed to accumulate up to the
ionization level, corona will not occur, by definition.
Precipitation static occurs before the corona threshold is
reached. For what it's worth, here's what the 2000 ARRL
Handbook says:

"Precipitation Static and Corona Discharge"

"Precipitation static is an almost continuous hash-type noise
that often accompanies various kinds of precipitation, including
snowfall. Precipitation static is caused by rain drops, snowflakes
or even *wind-blown dust*, transferring a small electrical charge
on contact with an antenna."

"Electrical fields under thunderstorms are sufficient to place
many objects such as trees, hair and antennas, into corona
discharge."

Although not stated explicitly, seems to me there is a strong
implication that precipitation static is not strong enough to
ionize the air, i.e. not strong enough to cause corona to exist.
Indeed, the arcing at a coax connector or the DC grounding of
an antenna may be enough to prevent ionization and corona
during a precipitation static episode.
--
73, Cecil http://www.qsl.net/w5dxp

4033. Re: Don't do what I did.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 13:06:28 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150376788.409436.119850@h76g2000cwa.googlegroups.com>
Source record: 57975

Tom, do you live in the desert?!

You must keep those caps somewhere pretty clean... cool experiment
though... wonder what the record is for capacitor storage over a very
long time.

73,
Dan
N3OX

4034. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 13:42:55 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1150378975.699764.236800@r2g2000cwb.googlegroups.com>
Source record: 57826
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

markie_morgan_rapesboys@yahoo.com wrote:
> assraped by an old freind wrote:
> > billy_shittydrawers_smith@yahoo.com wrote:
\
> > get
>
> Don't get help for your AIDS, just die from it.
no AIDS here

but you are one sick bastard

get help

4035. Re: Question about Bode's book Ch V P 81

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 15:13:59 UTC
From: "fan.he1@gmail.com" <fan.he1@gmail.com>
Message-ID: <1150384439.183260.6880@g10g2000cwb.googlegroups.com>
Source record: 57827

Hi Richard,

I've read the discussion, and I think Raymond's question makes sense.

**********my comments after your words
Richard Clark wrote:
> On 14 Jun 2006 11:42:28 -0700, "RR67" <raymond.ribas@gmail.com> wrote:
>
> >> You now seem to be inventing voltage sources.
> > ---- I try to understand what it's the physical significance of
> >delta(1,3)/delta^0
> >
> >(transmission from input to grid)and of delta(4,2)*Wr /delta^0
> >(trnsmission from plate to output) with in the both case Tube dead.
> >May you tell me what it's the physical significance in this example for
> >these relations ?
>
> Hi Raymond,
>
> You alternate between questions of math and physical significance. The
> two are linked only through abstractions at this point in the
> discussion.
>
********** I don't think so, the math and physical significance are
both important, and if you read Bode's book, you can feel that he
always explain the physical meanings of his math equations and symbols.
such as Delta(x,y)/Delta(0)
(Delta(x,y) is the cofactor of determinant Delta)

> The "relations" appear to be math for combined series and parallel
> combinations of the impedances. Others may wish to examine the math
> at the end of this posting.
>
> >--- Yes I keep saying that, imagine Z1 ,Z2 ,Z3 ,Z4, and Z5 are pure
> >resistors (so it's means Witout =3Dw/o parasitic elements) the (5-20)
> >result holds so it's means the first factor Z2 /Z1+Z2+Z3(.../...)
> >coresponding to delta(1,3)/delta^0 is dimensionless.
>
> If the matrix is entirely resistances, then a co-factor must be
> resistances. How did it become dimensionless?
>

********** the determinant Delta itselt makes no sense for unit. but
not the ratio of cofactor and determinant,
i can say that : if the unit of all element of matrix is ohm, assume

matrix is of Nth order ,
then is determinant's unit will be ohm^N, and first ordre cofactor
[delta(x,y)] will have a unit of ohm^N-1, so the ratio will have a unit
of ohm or siemens (depends on cofactor is in Numerator or Denominator)

so cofactor is not simplely a resistance here.

> >I have done the calcul and I found 1/(Z1+Z2+Z3(../..) instead of the
> >Bode one
>
> This doesn't make much sense - show your work.
>
> >so it's means the same result w/o the Z2 , for the second
> >member same result but w/o the multiplicative factor Z4.
>
> This makes even less sense - show your work.
>
> Aside from that, and relating to only one point you complained of -
> admittance. Look at the last term of (5-20) and note that it is W. W
> is an immittance. An immittance is normally dimensionless, but in
> older texts it can be either an admittance or an impedance depending
> upon context.
>
>

********* I think Immittance is not dimensionless, because it must be
an impedance or an admittance, so it will have a unit of ohm or
siemens. if not, could you tell me what's an immttance for the modern
texts, if it doesn't represent impedance or admittance.

> *************** Fixed Font ****************************
>
> For other's benefits, the circuit is simplified by Bode to:
>
>
> ------- Z2 -------- Z4 ------
> | | |
> Z1 Z3 Z5
> | | |
> ----------------------------
>
> Fractional gain = - term1 · term2 · Z5 · W
>
> where
> term1 = Z2
> -----------------------
> Z3(Z4 + Z5)
> Z1 + Z2 + -----------------
> Z3 + Z4 + Z5
>

In Page 81, Bode said this term can be recognized as the
Delta(1,3)/Delta(0), but as i discussed above, the ratio must have a
unit of ohm or siemens. (depends on mesh or nodal equations)

but if we examined this term, it's dimensionless.(for simple, we can
assume all impendance only have real part, it means only resistive)

so there's a paradox with bode's words.

> term2 = Z4
> ----------------------
> (Z1 + Z2)Z3
> ------------- + Z4 + Z5
> Z1 + Z2 + Z3
>

********** the same problem

> and
> Z1: source Z
> Z2: grid-cathode parasitic Z
> Z3: cathode circuit Z
> Z4: cathode-plate parasitic Z
> Z5: load Z
>

At last, W is an immittance in bode's book, in mesh analysis, W is an
impedance and in nodal analysis it's an admittance.
Here what do you think about W (impedance or admittance)for Frational
gain.

Thanks!

> 73's
> Richard Clark, KB7QHC

4036. OT: Needed: Kenwood TS-180 user manual

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 15:15:47 UTC
From: Buck <not@this.time>
Message-ID: <ocu292ltc8f4v3tp1c6dvmtcll1pu852sv@4ax.com>
Source record: 57828

Needed: Kenwood TS-180 user manual

Please let me know if someone has one they are willing to part with or
scan for me.

Thanks
Buck
N4PGW
--
73 for now
Buck
N4PGW

4037. Re: Don't do what I did.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 15:32:49 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1150385569.115467.154060@r2g2000cwb.googlegroups.com>
Source record: 57829

n3ox.dan@gmail.com wrote:
> Tom, do you live in the desert?!
>
> You must keep those caps somewhere pretty clean... cool experiment
> though... wonder what the record is for capacitor storage over a very
> long time.
>
> 73,
> Dan
> N3OX

No; in fact, I live near Seattle! It might actually be worse in a hot desert, though, because the leakage probably doubles every 10C or so. Mine are stored with one lead soldered to a PC board, and the outher up in the air, in a little cardbaord box. Of course, the gates in isolated-gate PROMS hold their charge a very long time, too. But modern automated manufacturing in well controlled processes produces some very consistent materials. I told Bob Pease about my capacitor 'speriment (with two polyester = Mylar caps, and two polypropylene, all 0.1uF, all initially charged to about 12V, the limit of my high-impedance volt meter) and he told me about being surprised that an unplugged common printer power supply he had held its charge for many days. I can tell you that the Mylars have a self discharge time constant (about 5-10 years) about 1/10 that of the polyprops. The "supercaps" aren't too bad either--those 1F 5.5V things. Seems to me I measured a few months for those, though I don't remember for sure right now.

Way off topic for antennas. Sorry, but some may find it interesting anyway.

Cheers,
Tom

4038. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 15:55:50 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <aqfkg.44792$fb2.12310@newssvr27.news.prodigy.net>
Source record: 57830

jawod wrote:
> Cecil Moore wrote:
>
>> Tom Donaly wrote:
>>
>>> Whether it's dust, snow, or the atmospheric electric field charging
>>> the antenna, the noise is still corona discharge. At least that's
>>> what most
>>> of the sources say.
>>
>>
>>
>> The argument is not what it is called. The argument is whether
>> charged dry-air dust particles can transfer charge to bare-wire
>> antennas.
>
> Man, you guys really crack me up. I must admit I kinda enjoy reading
> your posts, though.
>
> \There must be some source citing experimental evidence of charged
> particles in a dust storm transferring their charges to a collector of
> some sort (antenna). I alluded earlier to a practical use of such
> collection...
> Cecil, you said you have no idea how many Joules were represented (or
> something along those lines).
>
> Seems to me, that Joules per unit time is precisely the measure that's
> needed in this "analysis". Is this Voltage, or am I mistaken?
>
> Compare the density of the dust cloud with the charge collected. There
> should be a correlation. What about velocity of the cloud: more charges
> transferred per unit time.
>
> If your rug was scorched, some "work" was done. My college physiscs is
> only a nightmare away: what is the relation of Joules to work?
>
> What was the other issue: number of particles versus the charge per
> particle? Got me.
>
> As the particles are swept off the surface of the desert, would their
> charge (per particle) be distributed (as Gauss or some other)?
>
> I would think the # particles would be more important.
>

> If a given volume of dust particles moves through the field of an
> antenna (it would have a field, wouldn't it? ... even if grounded?
> perhaps field is the wrong word), increasing velocity of the volume
> would mean more particles per unit time passing the antenna. Hence more
> charge transferred: more charge per unit time. Again, is this Voltage?
>
> I guess I can't part with my trickle charger idea.
>
> You guys have at it. Thanks for letting me butt in.
>
> John

There was once an article in the old Scientific American Amateur
Scientist section about using the earth's electric field to
power various static electric motors. Just build a motor from
one of the simple designs on the web; using a weather balloon,
run a wire up 300 feet or so (should give you 9000 volts or
so on a clear day); attach your motor between the wire and ground, and,
once the wire charges up, the motor turns. You won't get much work
out of it, but it'll run a long time.
73,
Tom Donaly, KA6RUH

4039. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 16:14:23 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <zHfkg.44796$fb2.14123@newssvr27.news.prodigy.net>
Source record: 57831

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> Whether it's dust, snow, or the atmospheric electric field charging
>> the antenna, the noise is still corona discharge. At least that's what
>> most
>> of the sources say.
>
>
> It is my understanding that the air around a conductor must
> ionize for it to be defined as corona. Obviously, there is
> a time when charge is transferred to the antenna before
> ionization (corona) occurs. Corona is defined as a discharge
> function. The charging function must necessarily occur before
> corona. If the charge is not allowed to accumulate up to the
> ionization level, corona will not occur, by definition.
> Precipitation static occurs before the corona threshold is
> reached. For what it's worth, here's what the 2000 ARRL
> Handbook says:
>
> "Precipitation Static and Corona Discharge"
>
> "Precipitation static is an almost continuous hash-type noise
> that often accompanies various kinds of precipitation, including
> snowfall. Precipitation static is caused by rain drops, snowflakes
> or even *wind-blown dust*, transferring a small electrical charge
> on contact with an antenna."
>
> "Electrical fields under thunderstorms are sufficient to place
> many objects such as trees, hair and antennas, into corona
> discharge."
>
> Although not stated explicitly, seems to me there is a strong
> implication that precipitation static is not strong enough to
> ionize the air, i.e. not strong enough to cause corona to exist.
> Indeed, the arcing at a coax connector or the DC grounding of
> an antenna may be enough to prevent ionization and corona
> during a precipitation static episode.

Cecil, you can do a web search for "precipitation static," and
"Saint Elmo's fire," to find out what most people think
precipitation static is. Before I'd believe that each little
raindrop makes a noise as it strikes the antenna, I'd want to
see an experiment showing this. Most of the sources on the

web, at least, don't mention it, but generally agree with Tom about the cause of the problem. You can read all that for yourself.
73,
Tom Donaly, KA6RUH

4040. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 16:40:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <e4gkg.24447$VE1.3429@newssvr14.news.prodigy.com>
Source record: 57832

Tom Donaly wrote:
> Cecil, you can do a web search for "precipitation static," and
> "Saint Elmo's fire," to find out what most people think
> precipitation static is. Before I'd believe that each little
> raindrop makes a noise as it strikes the antenna, I'd want to
> see an experiment showing this.

It's only raindrops having a charge different from
the antenna that make the noise and I have previously
explained the mechanism of charge equalization between
the two dipole elements through the link.

Seems to me only magical thinking would result in each
and every raindrop having a charge exactly equal to the
antenna upon which it is falling. I'd like to see you
come up with a proof for such an assertion.

> Most of the sources on the
> web, at least, don't mention it, but generally agree with
> Tom about the cause of the problem. You can read all that
> for yourself.

I have read it for myself and *nothing* I have read agrees
with W8JI. Corona doesn't exist until ionization takes
place. Precipitation static and even arcing do not require
any corona to exist. Here's a web page that explains the
difference between arcing and corona discharge including
a gray area called "brush discharges".

http://www.ce-mag.com/archive/1999/novdec/mrstatic.html

Please notice that arcing at a coax connector doesn't require
corona at all.
--
73, Cecil, http://www.qsl.net/w5dxp

4041. Re: Question about Bode's book Ch V P 81

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 16:49:06 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <nnu2929cpd8k4mfmfk0annnm1kt8ehpl0g@4ax.com>
Source record: 57833

On 15 Jun 2006 08:13:59 -0700, "fan.he1@gmail.com" <fan.he1@gmail.com>
wrote:
>> You alternate between questions of math and physical significance. The
>> two are linked only through abstractions at this point in the
>> discussion.
>>
>********** I don't think so, the math and physical significance are
>both important,

Hi Raymond,

That is what I said.

>and if you read Bode's book, you can feel that he
>always explain the physical meanings of his math equations and symbols.
>such as Delta(x,y)/Delta(0)
>(Delta(x,y) is the cofactor of determinant Delta)

And that too, has been said. Bode has developed what is a transfer
function. That is the math. He has developed it from the conditions
of a tube circuit in which the tube is unpowered. That is the
physical meaning. The two are abstractly linked. That is the lesson.

>so cofactor is not simplely a resistance here.

The matrix assignment of all resistances replacing complex impedances
was YOUR stipulation, how a co-factor does not resolve to resistance
is your error. I expect you to fully demonstrate your own example,
not assert a conflicting conclusion.

You have not yet fulfilled:
>> This doesn't make much sense - show your work.
>> This makes even less sense - show your work.

>> Aside from that, and relating to only one point you complained of -
>> admittance. Look at the last term of (5-20) and note that it is W. W
>> is an immittance. An immittance is normally dimensionless, but in
>> older texts it can be either an admittance or an impedance depending
>> upon context.
>
>********* I think Immittance is not dimensionless, because it must be
>an impedance or an admittance, so it will have a unit of ohm or
>siemens. if not, could you tell me what's an immttance for the modern
>texts, if it doesn't represent impedance or admittance.

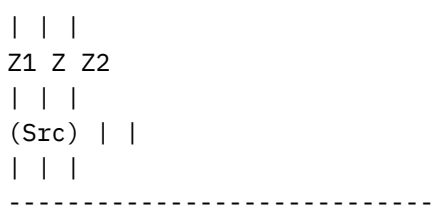
Raymond, that has already been said.

>> Fractional gain =3D - term1 =B7 term2 =B7 Z5 =B7 W
>>
>> where
>> term1 = Z2
>> ----------------------
>> Z3(Z4 + Z5)
>> Z1 + Z2 + --------------
>> Z3 + Z4 + Z5
>>
>
>In Page 81, Bode said this term can be recognized as the
>Delta(1,3)/Delta(0), but as i discussed above, the ratio must have a
>unit of ohm or siemens. (depends on mesh or nodal equations)
>
>but if we examined this term, it's dimensionless.(for simple, we can
>assume all impendance only have real part, it means only resistive)
>
>so there's a paradox with bode's words.

Your problem with this subset of equation 5-20 suggests you skipped over earlier work. There is no paradox. The subset above is developed identically to equation 4-17. If you could achieve it, then equation 5-20 is no more problematic.

********** Fixed Font ****************************

For other's benefits, the circuit provided by Bode for 4-17:



where equation 4-17 is

$$\text{gain} = \frac{Z}{Z1\ \text{ï¿½}\ Z2 + Z(Z1 + Z2)}$$

73's
Richard Clark, KB7QHC

4042. Re: Question about Bode's book Ch V P 81

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 16:52:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <pv3392l8laha9jh3h73rhbrkbse8d6reai@4ax.com>
Source record: 57834

On 15 Jun 2006 08:39:20 -0700, "RR67" <raymond.ribas@gmail.com> wrote:

>Richard let me know how I can add a file in pdf format to my post

Hi Raymond,

That is not allowed in a text only newsgroup. Post it to the internet
and provide an address.

73's
Richard Clark, KB7QHC

4043. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 17:42:40 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <k_gkg.49895$4L1.19894@newssvr11.news.prodigy.com>
Source record: 57835

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Cecil, you can do a web search for "precipitation static," and
>> "Saint Elmo's fire," to find out what most people think
>> precipitation static is. Before I'd believe that each little
>> raindrop makes a noise as it strikes the antenna, I'd want to
>> see an experiment showing this.
>
>
> It's only raindrops having a charge different from
> the antenna that make the noise and I have previously
> explained the mechanism of charge equalization between
> the two dipole elements through the link.
>
> Seems to me only magical thinking would result in each
> and every raindrop having a charge exactly equal to the
> antenna upon which it is falling. I'd like to see you
> come up with a proof for such an assertion.
>
>> Most of the sources on the
>> web, at least, don't mention it, but generally agree with
>> Tom about the cause of the problem. You can read all that
>> for yourself.
>
>
> I have read it for myself and *nothing* I have read agrees
> with W8JI. Corona doesn't exist until ionization takes
> place. Precipitation static and even arcing do not require
> any corona to exist. Here's a web page that explains the
> difference between arcing and corona discharge including
> a gray area called "brush discharges".
>
> http://www.ce-mag.com/archive/1999/novdec/mrstatic.html
>
> Please notice that arcing at a coax connector doesn't require
> corona at all.

Cecil,
show me your experiments. You can ratiocinate your head
off and you still won't be any closer to the truth. Tell me how I
can spray water drops on my antenna and make a noise in my
receiver as each drop hits the antenna. Can you do it?
73,

Tom Donaly, KA6RUH

4044. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 18:24:00 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <h59392he8f22qfdm6pe4tp6miv6coilmc8@4ax.com>
Source record: 57836

On Thu, 15 Jun 2006 17:42:40 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>You can ratiocinate your head
>off and you still won't be any closer to the truth.

Hi Tom,

As Judge Judy would say, "Don't discharge on my leg and tell me its
corona even if you've been drinking beer."

73's
Richard Clark, KB7QHC

4045. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 18:47:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7Xhkg.97539$H71.54619@newssvr13.news.prodigy.com>
Source record: 57837

Tom Donaly wrote:
> show me your experiments. You can ratiocinate your head
> off and you still won't be any closer to the truth. Tell me how I
> can spray water drops on my antenna and make a noise in my
> receiver as each drop hits the antenna. Can you do it?

No, I think it is up to you to prove that each and every
raindrop that falls has exactly the same charge as
any antenna upon which it might fall. Which means that
you must prove that all antennas being rained upon have
identical unchanging charges. That is what would have to
be true for you to be correct. Sorry Tom, please peddle
your magical thinking to someone else. What do you think
about the 2000 ARRL Handbook quote?

"Precipitation static is an almost continuous hash-type noise
that often accompanies various kinds of precipitation, including
snowfall. Precipitation static is caused by rain drops, snowflakes
or even wind-blown dust, transferring a small electrical charge
on contact with an antenna."

The physics of charged particles has been understood for
a century or so. I am not going to waste my time proving
those known and accepted facts of physics. It is up to you
and W8JI to prove a century of physics knowledge to be
wrong. Good luck on proving that all static is caused by
corona discharge even in the absence of the necessary
ionization that defines the word "corona".
--
73, Cecil, http://www.qsl.net/w5dxp

4046. Antenna Q as a useful measurement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 18:51:24 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150397484.025443.139030@f6g2000cwb.googlegroups.com>
Source record: 57838

I'm wondering about calculating antenna efficiency from the Q as measured at the feedpoint.

I know the definition of antenna Q has been hashed out a bit on this group, so let me be specific and say that I'm measuring Q by looking at the half power bandwidth around resonance as I would with an LCR circuit, or maybe I'm looking at the generalization for a different voltage down from the maximum, so I can use the 2:1 SWR bandwidth as per the description here:

http://lists.contesting.com/_amps/2006-01/msg00179.html

Once you know the Q, you need to know the antenna's radiation resistance using some method, so that you can figure out the loss resistance.

Is seems reasonable to model the antenna in EZNEC with lossless elements and use the feedpoint resistance at resonance as the radiation resistance and then subtract that off from the R calculated from Q=X/R.

Then all the loss elements are empirically determined, ground losses, bolted connections, traps, etc etc.

Any comments on this? It seems a good idea to me but I'd welcome some holes poked in it. I know that accurately modeling things like multiband verticals and so forth even in the lossless case might be tricky.

73,
Dan
N3OX

4047. Re: Wide bandwidth ladder line J-pole for 6-Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 19:01:52 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <heb392hq0bff65fq5uuqaiequ52uhukp1n@4ax.com>
Source record: 57839

On Tue, 13 Jun 2006 14:27:14 -0700, "Chuck Olson"
<chuckolson01@REMOVETHIScomcast.net> wrote:

>
>"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
>news:e6n2i3$pf0$1@avnika.corp.mot.com...
>>
>> "Chuck Olson" <chuckolson01@REMOVETHIScomcast.net> wrote in message
>> news:Ts-dndx_b-BRkBPZnZ2dnUVZ_oydnZ2d@comcast.com...
>> > Today I clipped out the connection I had made at the bottom of the
>> radiator,
>> > and the SWR bandwidth remained 2MHz as is was with the connection. The
>> group
>> > of SWR measurements moved up an average of 150 KHz from my readings with
>> the
>> > connection, but otherwise the performance of the "Slim Jim"
>configuration
>> is
>> > identical. The length of the gap may now serve as a tuning mechanism,
>> which
>> > wasn't a feature with the bottom connection, and the archives show some
>> > builders made good use of that facility. Thanks for spotting the
>> similarity,
>> > Jeff. My 6M antenna will no doubt be better for it.
>> > 73, Chuck
>>
>>
>> Chuck,
>> I searched on Slim-Jim. Let me see if I understand correctly.
>> Slim-Jim is a twin-lead or ladder-line type J antenna with the *top* of
>the
>> half-wave (dual conductor) radiator ends connected.
>> Yours has the bottom of the 1/2 wave ends connected.
>
>Yes, I conncted both top and bottom of the radiator to the previously
>floating wire, and when I removed the bottom connection, the SWR bandwidth
>remained as before, so the bottom connection does not appear to be
>necessary. The top connection is very easy, and evidently that's all you
>need, so no doubt about it - - it becomes a Slim-Jim.
>
>> Am I to understand that the Slim-Jim configuration and yours have very
>> similar SWR BW?
>
>Yes.

>
>> This is good to know.
>>
>> Then I'd like clarification on your comment:
>> "... If you analyze the operation of the very successful "Open Stub
>> > J-Pole" that Arrow makes, you will find they use the 0.95 FV for both
>the
>> > radiator and the stub,..."
>>
>> Can you be more specific about this. What is the electrical length of the
>> stub for said analysis? I like that design, though there is controversy
>> about it.
>
>I'm old fashioned, so I use an HP17BII calculator which has a "solve"
>function, and with the formula, LIN = 11811 / F(MHZ) / 4 x VF, given any two
>of LIN, FMHZ, and FV, I can obtain the third for a 1/4 wave stub.
>
>We find on the Arrow site http://www.arrowantennas.com/j-pole.html the
>longest element for operation at 146 MHz is 57.5", and the shorter element
>that makes the 1/4-wave stub is 19.25". With FMHZ = 146 and LIN = 19.25" we
>solve for VF of that shorter element and get 0.95 (which refers to the free
>space 1/4-wave as 1.00). Subtracting the 19.25 from 57.5 we get the radiator
>length of 38.25". Since that is a 1/2-wave length, we divide by 2 so we can
>use the 1/4-wave formula, and solving for VF we again get 0.95. I hope this
>helps.
>
>>
>> 73, Steve, K9DCi
>>
>>
>
>Best regards,
>
>Chuck, W6PKP
>

My 2-meter ladderline j-pole is connected at the bottom of the
apparatus only, forming the hook of the so-called "J". Yours is
connected at the very top and very bottom, forming kind of a double
"J"?

bob
k5qwg

4048. Re: Antenna Q as a useful measurement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 19:03:03 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gib392pi7h86b1h46gutf1124t1echrn0l@4ax.com>
Source record: 57840

On 15 Jun 2006 11:51:24 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

> so I can use the 2:1 SWR bandwidth as
>per the description here:
>
>http://lists.contesting.com/_amps/2006-01/msg00179.html
>
>Once you know the Q, you need to know the antenna's radiation
>resistance using some method, so that you can figure out the loss
>resistance.

Hi Dan,

Conceptually close, but certainly not to the degree of accuracy you
might expect. 2:1 SWR points are not half power, as would be the
classic determinant for Q bandwidth. As your link provides, it is 88%
power points.

73's
Richard Clark, KB7QHC

4049. Re: Needed: Kenwood TS-180 user manual

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 19:17:18 UTC
From: "g. beat"
Message-ID: <jvednY4HAMrdLwzZnZ2dnUVZ_tWdnZ2d@comcast.com>
Source record: 57841

"Buck" <not@this.time> wrote in message
news:ocu292ltc8f4v3tp1c6dvmtcll1pu852sv@4ax.com...
> Needed: Kenwood TS-180 user manual
>
> Please let me know if someone has one they are willing to part with or
> scan for me.
> --
> 73 for now
> Buck
> N4PGW

Yes, I see that XE1BEF only have the schematic and original QST review
http://members.fortunecity.com/xe1bef/kenwood-manuals.htm

Service bulletins
http://www.ham.dmz.ro/kenwood/ts-180s.php
http://www.radiomods.co.nz/kenwood/kenwoodts180.html

Surplus Sales has both the Operators and Service manuals ($25 and $27)
http://www.surplussales.com/Manuals/man_kenwood.html

4050. Re: Antenna Q as a useful measurement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 19:37:20 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150400240.217946.54270@f6g2000cwb.googlegroups.com>
Source record: 57842

Yes, I guess alternatively you could calculate the SWR at the
half-power points from

(E/Eo)^2=(1-((1-SWR)/(1+SWR))^2)

With E/Eo = 1/sqrt(2)

I get that this is about SWR = 5.8, and I understand that the MFJ-259B
is less and less accurate as the load moves away from 50 ohms
resistive, so it might be better to use the 88% power, 2:1 SWR
bandwidth points.

- - - - - -

I've thought of an additional question regarding this method. The
ground has an effect on antenna feedpoint impedance. This effect
contains both modification to the radiation resistance and the loss
resistance components of the feedpoint resistance.

Is the effect on the radiation resistance different for lossy earth and
for perfect earth? Obviously the loss increases with proximity to
ground, but can the effect of ground reflections on radiation
resistance be accurately modeled by putting the antenna over perfect
ground?

73,
Dan
N3OX

4051. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 20:00:59 UTC
From: w8ji@akorn.net
Message-ID: <1150401659.630033.154690@c74g2000cwc.googlegroups.com>
Source record: 57843

Cecil Moore wrote:
> The physics of charged particles has been understood for
> a century or so. I am not going to waste my time proving
> those known and accepted facts of physics. It is up to you
> and W8JI to prove a century of physics knowledge to be
> wrong. Good luck on proving that all static is caused by
> corona discharge even in the absence of the necessary
> ionization that defines the word "corona".

I think you miss the whole point Cecil.

1.) It isn't the noise made by the actual contact of particle to the antenna that makes what is commonly called p-static noise. There are many ways to disprove that through direct observation, and I have done that many many times. The problem is largely caused by the potential difference between the antenna and the area around the antenna, which is what causes corona.

This is why on days when there are clouds with high levels of charge from approaching storms there is p-static, even when no particles are strinking the antenna, there is noise.

This is why the noise level is higher and appears earlier on taller antennas, and why lowering the antenna SLIGHTLY in height but noticably below other structures greatly reduces or eliminates noise. It's also why a Super Stationmaster, in a fiberglass housing with the internal element spaced away from the housing BUT with a small metal tip out the top, has about the same noise level as a bare element.

We spent thousands of dollars changing antennas based on the common myth (which at one point in the 70's I swallowed like you are today) that it was the contact of particles to the antenna that caused the noise, money I wish I could have gotten back.

You tend to toss out anything that disagrees with you.

2.) No one is disputing how particles behave, except perhaps those who think the particle contact noise is the problem and that providing a dc path somehow eliminates that energy transfer.

73 Tom

4052. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 20:05:08 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <U3jkg.97550$H71.14448@newssvr13.news.prodigy.com>
Source record: 57844

Richard Clark wrote:
> On Thu, 15 Jun 2006 17:42:40 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>You can ratiocinate your head
>>off and you still won't be any closer to the truth.
>
>
> Hi Tom,
>
> As Judge Judy would say, "Don't discharge on my leg and tell me its
> corona even if you've been drinking beer."
>
> 73's
> Richard Clark, KB7QHC

In Cecil's case he'd claim it was Corona Extra.
73,
Tom Donaly, KA6RUH

4053. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 20:18:55 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Pgjkg.97555$H71.64075@newssvr13.news.prodigy.com>
Source record: 57845

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> show me your experiments. You can ratiocinate your head
>> off and you still won't be any closer to the truth. Tell me how I
>> can spray water drops on my antenna and make a noise in my
>> receiver as each drop hits the antenna. Can you do it?
>
>
> No, I think it is up to you to prove that each and every
> raindrop that falls has exactly the same charge as
> any antenna upon which it might fall. Which means that
> you must prove that all antennas being rained upon have
> identical unchanging charges. That is what would have to
> be true for you to be correct. Sorry Tom, please peddle
> your magical thinking to someone else. What do you think
> about the 2000 ARRL Handbook quote?
>
> "Precipitation static is an almost continuous hash-type noise
> that often accompanies various kinds of precipitation, including
> snowfall. Precipitation static is caused by rain drops, snowflakes
> or even wind-blown dust, transferring a small electrical charge
> on contact with an antenna."
>
> The physics of charged particles has been understood for
> a century or so. I am not going to waste my time proving
> those known and accepted facts of physics. It is up to you
> and W8JI to prove a century of physics knowledge to be
> wrong. Good luck on proving that all static is caused by
> corona discharge even in the absence of the necessary
> ionization that defines the word "corona".

You're the one who made the statements, Cecil, so you're the one
who has to prove them. Just tell me how you sprayed charged
water drops on your antenna and recorded the noise from your
receiver when each one of them hit. If you can't do that, all
appeals to a higher authority are meaningless.
73,
Tom Donaly, KA6RUH

4054. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 20:35:06 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <_vjkg.44866$fb2.20464@newssvr27.news.prodigy.net>
Source record: 57847

Tom Donaly wrote:
> You're the one who made the statements, Cecil, so you're the one
> who has to prove them.

Sorry, I'm just agreeing with the 2000 ARRL Handbook and
all other references I can find on the subject. It is you
who has to prove all those references wrong.
--
73, Cecil, http://www.qsl.net/w5dxp

4055. Re: Question about Bode's book Ch V P 81

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 20:35:24 UTC
From: hwbode <fan.he1@gmail.com>
Message-ID: <1150403723.948994.121000@p79g2000cwp.googlegroups.com>
Source record: 57846

Hi Richard,

Just for 4-17, if you read the phrase just before the 4-17. you can
find that
the gain is the current in response to the unit generator (1V voltage
source),
so it's clear that result 4-17 is transfer admittance I/V. Here we
omited the load Wr.

on the contrary, in 5-20, the load impendance Wr has been taken as Z5.
so i can't see any relevance to our question.

Thanks,

Richard Clark 写道：

> On 15 Jun 2006 08:13:59 -0700, "fan.he1@gmail.com" <fan.he1@gmail.com>
> wrote:
> >> You alternate between questions of math and physical significance. The
> >> two are linked only through abstractions at this point in the
> >> discussion.
> >>
> >********** I don't think so, the math and physical significance are
> >both important,
>
> Hi Raymond,
>
> That is what I said.
>
> >and if you read Bode's book, you can feel that he
> >always explain the physical meanings of his math equations and symbols.
> >such as Delta(x,y)/Delta(0)
> >(Delta(x,y) is the cofactor of determinant Delta)
>
> And that too, has been said. Bode has developed what is a transfer
> function. That is the math. He has developed it from the conditions
> of a tube circuit in which the tube is unpowered. That is the
> physical meaning. The two are abstractly linked. That is the lesson.
>
> >so cofactor is not simplely a resistance here.
>
> The matrix assignment of all resistances replacing complex impedances
> was YOUR stipulation, how a co-factor does not resolve to resistance
> is your error. I expect you to fully demonstrate your own example,
> not assert a conflicting conclusion.
>

> You have not yet fulfilled:
> >> This doesn't make much sense - show your work.
> >> This makes even less sense - show your work.
>
> >> Aside from that, and relating to only one point you complained of -
> >> admittance. Look at the last term of (5-20) and note that it is W. W
> >> is an immittance. An immittance is normally dimensionless, but in
> >> older texts it can be either an admittance or an impedance depending
> >> upon context.
> >
> >********* I think Immittance is not dimensionless, because it must be
> >an impedance or an admittance, so it will have a unit of ohm or
> >siemens. if not, could you tell me what's an immttance for the modern
> >texts, if it doesn't represent impedance or admittance.
>
> Raymond, that has already been said.
>
> >> Fractional gain =3D - term1 =B7 term2 =B7 Z5 =B7 W
> >>
> >> where
> >> term1 = Z2
> >> ----------------------
> >> Z3(Z4 + Z5)
> >> Z1 + Z2 + --------------
> >> Z3 + Z4 + Z5
> >>
> >
> >In Page 81, Bode said this term can be recognized as the
> >Delta(1,3)/Delta(0), but as i discussed above, the ratio must have a
> >unit of ohm or siemens. (depends on mesh or nodal equations)
> >
> >but if we examined this term, it's dimensionless.(for simple, we can
> >assume all impendance only have real part, it means only resistive)
> >
> >so there's a paradox with bode's words.
>
> Your problem with this subset of equation 5-20 suggests you skipped
> over earlier work. There is no paradox. The subset above is
> developed identically to equation 4-17. If you could achieve it, then
> equation 5-20 is no more problematic.
>
> *************** Fixed Font ****************************
>
> For other's benefits, the circuit provided by Bode for 4-17:
>
> ----------------------------
> | | |
> Z1 Z Z2
> | | |
> (Src) | |

> | | |
> ----------------------------
>
> where equation 4-17 is
>
> Z
> gain = ----------------------
> Z1 · Z2 + Z(Z1 + Z2)
>
> 73's
> Richard Clark, KB7QHC

4056. Re: Antenna Q as a useful measurement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 20:51:55 UTC
From: Wes Stewart <n7ws*@*yahoo.com>
Message-ID: <ckh392l70fpl6p149t8hqv0qdkokt29pgq@4ax.com>
Source record: 57848

On 15 Jun 2006 11:51:24 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

>I'm wondering about calculating antenna efficiency from the Q as
>measured at the feedpoint.
>
>I know the definition of antenna Q has been hashed out a bit on this
>group, so let me be specific and say that I'm measuring Q by looking at
>the half power bandwidth around resonance as I would with an LCR
>circuit, or maybe I'm looking at the generalization for a different
>voltage down from the maximum, so I can use the 2:1 SWR bandwidth as
>per the description here:
>
>http://lists.contesting.com/_amps/2006-01/msg00179.html
>
>Once you know the Q, you need to know the antenna's radiation
>resistance using some method, so that you can figure out the loss
>resistance.
>
>Is seems reasonable to model the antenna in EZNEC with lossless
>elements and use the feedpoint resistance at resonance as the radiation
>resistance and then subtract that off from the R calculated from Q=X/R.
>
>Then all the loss elements are empirically determined, ground losses,
>bolted connections, traps, etc etc.
>
>Any comments on this? It seems a good idea to me but I'd welcome some
>holes poked in it. I know that accurately modeling things like
>multiband verticals and so forth even in the lossless case might be
>tricky.

SWR bandwidth is pretty much meaningless in this effort. If you model
the antenna and then use the reactance slope with respect to frequency
around the resonant frequency then you can calculate an equivalent L &
C for the radiator. With this and the feedpoint resistance you can
calculate Q, for whatever it's worth.

Close to resonance the reactance slope is very near linear and the
real part is nearly constant. I use Excel's solver to find L & C and
go from there. With coupled elements (Yagis, etc) I'm not sure this
method is particularly useful, but I'm not sure whether knowing the Q
is very useful in the first instance.

4057. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 20:54:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <cOjkg.44872$fb2.10961@newssvr27.news.prodigy.net>
Source record: 57849

w8ji@akorn.net wrote:
> 1.) It isn't the noise made by the actual contact of particle to the
> antenna that makes what is commonly called p-static noise.

Assuming that "p-static" is precipitation static, you already
agreed with the laws of physics that make your statement false.
Any particle with a charge different from the antenna wire
will cause particle noise even when the corona threshold
is not even close. There's no way to stop a charged particle
from transferring its charge to a bare-wire antenna. There's
no way to keep that charge from equalizing through the
link coupling in a non-folded dipole. This is all easily proved
using very small charges nowhere near the corona threshold.

I agree that some cars are white. I just disagree with your
assertion that all cars are white. I agree with the 2000
ARRL Handbook about precipitation static Vs corona static.

> The 2000 ARRL Handbook says:
>> "Precipitation static is an almost continuous hash-type noise
>> that often accompanies various kinds of precipitation, including
>> snowfall. Precipitation static is caused by rain drops, snowflakes
>> or even wind-blown dust, transferring a small electrical charge
>> on contact with an antenna."

I also agree with what they say about corona static which certainly
exists and is what you are talking about. But corona static is not
the only thing that exists, as you are asserting.
--
73, Cecil, http://www.qsl.net/w5dxp

4058. Re: Rget help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 20:55:55 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <9tWdnRER2OHHVAzZnZ2dnUVZ_q2dnZ2d@comcast.com>
Source record: 57850
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.CB

an Old friend wrote:

> hamm_burger_1@yahoo.com wrote:
>
>>DR DEATH WOULD ALSO BENEFIT FROM EASIER TESTING. THAT PESKY NO CODE
>>THEORY IS A MOTHERFUCKER FOR HIM.
>
> rumor has it he has a tech license but rarely uses it
>

Does he wonder what 'OFF/ON' means?

4059. Re: Question about Bode's book Ch V P 81

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 21:09:07 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <kud392dgor4gcsh4dbbavpdi1o2t8uoc7d@4ax.com>
Source record: 57851

On 15 Jun 2006 11:52:51 -0700, "RR67" <raymond.ribas@gmail.com> wrote:

>Hi Richard ,
>I sent you whole document at your email address comcast.net
>I don't know how I can put it on the net at the moment , so feel free
>to put it on the net to share it with other person (at the moment I
>sent you just 3 pages) , I will manage it as soo as possible.
>I will provide you a gmail address if you want (actually the gmail box
>size it's 2.7 GBytes)
>Regards

Hi Raymond,

OK, so I see partial solutions for parallel and series impedances.
They are all quite in agreement with Bode's equation 5-20 - in
general.

However, the computation of i1 on page 3 entirely omits Z2. As a
result, the co-factored computation does not agree with the solution
found on page 2. del0 also omits Z2.

If page 3 were to agree with page 2; then it would seem that your
matrix substitution for del13 to del11 should have a equal treatment
for Bode's del42. It would appear he has at least one more mesh than
your analysis.

In this regard, it would pay to work backwards from equation 5-20 to
chapter 1 where the larger matrix resides for all the discussion up to
this point. This comes from the treatment of figure 1.5 which
contains the same number of impedances, but is treated with a larger
matrix. Observe how the meshes are defined and consider how he
implies the same treatment for figure 4.5.

Bode also offers advice on mesh vs. nodal analysis in chapter 1 (page
16) that bears upon your wish for physical correlation. Make sure to
heed his warning about the virtues of nodal analysis and what appear
to be your difficulties with mesh descriptions.

73's
Richard Clark, KB7QHC

4060. Re: Question about Bode's book Ch V P 81

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 21:14:28 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <7aj3929dv7vu4rmlt8p9u6tgvoh9dr0fmt@4ax.com>
Source record: 57852

On 15 Jun 2006 13:35:24 -0700, "hwbode" <fan.he1@gmail.com> wrote:

>Hi Richard,
>
>Just for 4-17, if you read the phrase just before the 4-17. you can
>find that
>the gain is the current in response to the unit generator (1V voltage
>source),
>so it's clear that result 4-17 is transfer admittance I/V. Here we
>omited the load Wr.
>
>on the contrary, in 5-20, the load impendance Wr has been taken as Z5.
>so i can't see any relevance to our question.

Hi OM,

You and Raymond appear to be sharing the same terminal, if not the
same room, and certainly the same town (Paris). You must be sharing
the same notes to which I've responded to in another post. Consider
my comments there.

73's
Richard Clark, KB7QHC

4061. Re: Antenna Q as a useful measurement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 21:32:37 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150407157.063063.70910@y41g2000cwy.googlegroups.com>
Source record: 57853

Wes and Richard. I've realized my conceptual mistake here. I have an antenna analyzer, not just an SWR meter. I can MEASURE the resistive part of the feedpoint impedance. I can calculate the radiation resistance using EZNEC or more simply for simpler antennas.

The resitive part of the feedpoint impedance minus the radiation resistance is the loss resistance, and then I can calculate the antenna efficiency.

I've complicated things by getting the Q involved, though maybe if all you have is an SWR meter...

Thanks for the replies.

73,
Dan

4062. Re: Antenna Q as a useful measurement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 21:33:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8hj392h759iiopl604df3sqd2iat2qqbkr@4ax.com>
Source record: 57854

On 15 Jun 2006 12:37:20 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

>I've thought of an additional question regarding this method. The
>ground has an effect on antenna feedpoint impedance.

Hi Dan,

To say the least.

>This effect
>contains both modification to the radiation resistance and the loss
>resistance components of the feedpoint resistance.

Well, it doesn't change radiation resistance, that is a property of
the height of the radiator (as in length, not how high above ground).
As for feedpoint resistance, the loss of ground is cast into the
determination of feedpoint Z (which contains the sum of Rr, Ohmic loss
of the structure, and dielectric loss of the soil).

>Is the effect on the radiation resistance different for lossy earth and
>for perfect earth?

To say the least.

>Obviously the loss increases with proximity to
>ground, but can the effect of ground reflections on radiation
>resistance be accurately modeled by putting the antenna over perfect
>ground?

Ground reflections are post-hoc determinations of what happens to the
available power AFTER it has escaped ground loss and left the
radiator. Ground serves to influence the radiation pattern, but only
ground at a distance. This is basically ray-tracing and trigonometry
between the antenna as a point, and the far field earth. Ground also
serves to influence the radiation pattern insofar as how much power is
divided between heating the ground and radiating out to that ground at
a distance which then bounces off and away.

Perfect ground has no loss, and is perfectly reflective. Poor ground
(very poor ground in fact) has little loss, but little reflectivity.
Better ground has more loss, but higher reflectivity. Ground is a
two-edged sword and the degrees of variation don't swing very far for
the majority of Hams.

If you happen to be one of those minority Hams, you possibly have your
vertical planted into very low loss sand dune overlooking the ocean.
If you happen to reside at the other end of the bell curve, that

minority probably lives in a mountain valley swamp.

All situations bear upon the drivepoint Z, and the launch characteristics, but bear in mind they are separate characteristics that have different major variables.

73's
Richard Clark, KB7QHC

4063. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 21:34:53 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <dik392plsiq6p3mdg79c62mauesj2hsv80@4ax.com>
Source record: 57855

On Thu, 15 Jun 2006 20:05:08 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>> As Judge Judy would say, "Don't discharge on my leg and tell me its
>> corona even if you've been drinking beer."
>>
>> 73's
>> Richard Clark, KB7QHC
>
>In Cecil's case he'd claim it was Corona Extra.

BAILIFF! Whack his pee-pee!

4064. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 23:21:38 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <6Ylkg.24591$VE1.11667@newssvr14.news.prodigy.com>
Source record: 57856

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> You're the one who made the statements, Cecil, so you're the one
>> who has to prove them.
>
>
> Sorry, I'm just agreeing with the 2000 ARRL Handbook and
> all other references I can find on the subject. It is you
> who has to prove all those references wrong.

Ha, ha! Nice joke, Cecil. I'll tell you what: if you can show that a group of students can tell whether it's raining or not solely by listening to the static on a radio with an outside antenna, I might begin to believe part of what you say. Otherwise, all your talk about carefully selected references is little more than a pathetically hollow attempt at self justification.
73,
Tom Donaly, KA6RUH

(P.S. You'll have to figure out a way to get rid of any charge buildup in order to keep the corona noise at bay.)

4065. After CW is gone, new hams will be phone only or 'Phonies.'

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 23:23:31 UTC
From: Re-Morse <see@double.you>
Message-ID: <TZIkg.13430$921.5299@newsread4.news.pas.earthlink.net>
Source record: 57857
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap

So when you work someone on HF phone you can ask:

Did you pass a code test or are you just a phony?

LOL.

Remorse

4066. Re: Antenna Q as a useful measurement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 23:32:38 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <PKOdnRIsTZFXcwzZRVnyiA@bt.com>
Source record: 57858

Q cannot be measured. It is a dimensionless number. It is merely a ratio of two quantities which ARE measurable.

But it's not so ridiculous as measuring the standing wave ratio on an imaginary transmission line.

4067. Re: Rget help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-15 23:53:25 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <1293snn2gr0he5a@corp.supernews.com>
Source record: 57859
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.shortwave,rec.radio.CB

"Dave" <W1MCE@comcast.net> wrote in message
news:9tWdnRER2OHHVAzZnZ2dnUVZ_q2dnZ2d@comcast.com...
> an Old friend wrote:
>
>> hamm_burger_1@yahoo.com wrote:
>>
>>>DR DEATH WOULD ALSO BENEFIT FROM EASIER TESTING. THAT PESKY NO CODE
>>>THEORY IS A MOTHERFUCKER FOR HIM.
>>
>> rumor has it he has a tech license but rarely uses it
>>
>
> Does he wonder what 'OFF/ON' means?
>

I took the online practice test and passed without studying. I do not possess any license, as I have no desire to become a ham. And yes I know what OFF/ON means. I probably know more about theory than most of the trolls on this group. I certainly post on topic more often than most of you. But I can post on topic once a month and accomplish that.

4068. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 00:21:11 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150417271.125737.165490@f6g2000cwb.googlegroups.com>
Source record: 57860
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap

Re-Morse wrote:
> So when you work someone on HF phone you can ask:
>
> Did you pass a code test or are you just a phony?
>
>
> LOL.
>
> Remorse
gte help loser

4069. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 00:44:54 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4491ff07$0$6141$39cecf19@news.twtelecom.net>
Source record: 57861

Cecil Moore wrote:

> be true for you to be correct. Sorry Tom, please peddle
> your magical thinking to someone else. What do you think
> about the 2000 ARRL Handbook quote?
>
> "Precipitation static is an almost continuous hash-type noise
> that often accompanies various kinds of precipitation, including
> snowfall. Precipitation static is caused by rain drops, snowflakes
> or even wind-blown dust, transferring a small electrical charge
> on contact with an antenna."
>
> The physics of charged particles has been understood for
> a century or so. I am not going to waste my time proving
> those known and accepted facts of physics. It is up to you
> and W8JI to prove a century of physics knowledge to be
> wrong. Good luck on proving that all static is caused by
> corona discharge even in the absence of the necessary
> ionization that defines the word "corona".

It especially shows up in the 300 inches a year lake effect snowfalls in northern NY. You can hear it on 6 and 2 quite well. These were DC grounded yagi antennas on all elements, so no corona available here, thank you.

Also, K1RQG, who is net control of the EMENet on 14345 Sat and Sun mornings, had it so bad from rain last weekend that he couldn't copy most of the participants for a few minutes. And in a heavy rainstorm, I have doubts that it had much to do with corona.

tom
K0TAR

4070. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 00:59:44 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44920280.6000402@fuse.net>
Source record: 57862

Roy Lewallen wrote:
> jawod wrote:
>
>> . . .
>> Seems to me, that Joules per unit time is precisely the measure that's
>> needed in this "analysis". Is this Voltage, or am I mistaken?
>
>
> Joules (energy) per unit time is power, not voltage.
>
>>
>> Compare the density of the dust cloud with the charge collected. There
>> should be a correlation. What about velocity of the cloud: more
>> charges transferred per unit time.
>
>
> Charge per unit time is current.
>
>> If your rug was scorched, some "work" was done. My college physiscs
>> is only a nightmare away: what is the relation of Joules to work?
>
>
> The joule is a unit of energy. Work is energy, so it can also be
> expressed in joules. Welcome to my nightmare. How many joules does it take to scorch a carpet?
>
>> . . .
>> If a given volume of dust particles moves through the field of an
>> antenna (it would have a field, wouldn't it? ... even if grounded?
>
>
> An antenna creates an electrostatic field if charged, but an
> electromagnetic field only if that charge is being accelerated, that is,
> if it carries current which changes with time.
> If the antenna is at ground potential and charged particles move across it, does it not induce a current inthe antenna?

>> perhaps field is the wrong word), increasing velocity of the volume
>> would mean more particles per unit time passing the antenna. Hence
>> more charge transferred: more charge per unit time. Again, is this
>> Voltage?
>
>
> No, charge per unit time is current.

OK, current.
You just saved me the trouble of digging out my old physics book, thanks.
> >. . .
>
> It's impossible to contribute much to the understanding of complex
> phenomena without first gaining an understanding of the most basic
> principles.
> I couldn't care less about "contributing" to the diatribes on this ng that pretend to address "understanding"
Like, I said, I just wanted to butt in.
I'll continue to read the posts (for some strange reason). If I post, I
trust that someone will always be there to correct my errors.

4071. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 01:13:50 UTC
From: jawod <jawod@fuse.net>
Message-ID: <449205CE.90103@fuse.net>
Source record: 57863

Tom Donaly wrote:
>
>
> There was once an article in the old Scientific American Amateur
> Scientist section about using the earth's electric field to
> power various static electric motors. Just build a motor from
> one of the simple designs on the web; using a weather balloon,
> run a wire up 300 feet or so (should give you 9000 volts or
> so on a clear day); attach your motor between the wire and ground, and,
> once the wire charges up, the motor turns. You won't get much work
> out of it, but it'll run a long time.
> 73,
> Tom Donaly, KA6RUH
Thanks, Tom, for your reasonable response. So, I guess we're talking
lots of voltage and very little current...makes sense.
Wasn't Ben Franklin involved in working all this out?

I'll ask another question that no doubt is off the mark:

The Santa Ana winds in California are supposed to blow for long periods
of time. Are there any measures of voltage, current, joules or cole
slaw on antennas in this area? Do they experience the "noise"?
Couldn't one connect a large capacitor circuit to store the charge and
trickle it to a battery?

(I just won't give up, eh?)

4072. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 02:02:31 UTC
From: w8ji@akorn.net
Message-ID: <1150423351.033258.85960@u72g2000cwu.googlegroups.com>
Source record: 57864

> It especially shows up in the 300 inches a year lake effect snowfalls in
> northern NY. You can hear it on 6 and 2 quite well. These were DC
> grounded yagi antennas on all elements, so no corona available here,
> thank you.

What makes you think the charge gradient and corona goes away with a grounded element? Because there is never lightning and lightning never hits a grounded object? Where dod you get that idea?

The earth is one terminal, the air and things in the air (like clouds) have a charge difference.

Since the "sky" is one terminal and the earth the other with large charge differential, why would you think connecting a tall sructure to earth REDUCES the charge differential?

> Also, K1RQG, who is net control of the EMENet on 14345 Sat and Sun
> mornings, had it so bad from rain last weekend that he couldn't copy
> most of the participants for a few minutes. And in a heavy rainstorm, I
> have doubts that it had much to do with corona.

Why? Maybe you can answer this.....

Do we have more lightning, which is caused by a charge difference between clouds and earth so severe it actually arcs for thousands of feet, in heavy rain or on clear dry days?

Do the leaders and streamers form on clear dry days, or when the weather is nasty?

You have it exactly backwards Tom. Grounding the element doesn't reduce corna or reduce the charge difference between air and things in air around the element and the element, it INCREASES the difference. If we could float the element and allow the element to charge to the potential of things around the element, the voltage gradient between the element and things around the element would be reduced. Why do you think the element, if we float the feedline, arcs to earth? It does that because the air around the element is greatly different in potential than the earth.

As for moisture, you also might do another test. Blow gently on a CRT anode lead. See if your hot humid breath increases corona or decreases it. Now go get a Windex bottle full of water and spray a mist on the anode lead and see if the corna goes away, or gets worse.

I wonder how many people really understand there is a huge potential difference between the air and earth even on a calm clear day, and

nasty weather can just make it worse.

73 Tom

4073. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 02:04:44 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <0lokg.24642$VE1.6169@newssvr14.news.prodigy.com>
Source record: 57865

jawod wrote:
> Tom Donaly wrote:
>
>>
>>
>> There was once an article in the old Scientific American Amateur
>> Scientist section about using the earth's electric field to
>> power various static electric motors. Just build a motor from
>> one of the simple designs on the web; using a weather balloon,
>> run a wire up 300 feet or so (should give you 9000 volts or
>> so on a clear day); attach your motor between the wire and ground, and,
>> once the wire charges up, the motor turns. You won't get much work
>> out of it, but it'll run a long time.
>> 73,
>> Tom Donaly, KA6RUH
>
> Thanks, Tom, for your reasonable response. So, I guess we're talking
> lots of voltage and very little current...makes sense.
> Wasn't Ben Franklin involved in working all this out?
>
> I'll ask another question that no doubt is off the mark:
>
> The Santa Ana winds in California are supposed to blow for long periods
> of time. Are there any measures of voltage, current, joules or cole
> slaw on antennas in this area? Do they experience the "noise"? Couldn't
> one connect a large capacitor circuit to store the charge and trickle it
> to a battery?
>
> (I just won't give up, eh?)

You'll get a lot more energy out of the wind by just putting up a wind
generator. There are many wind farms in California.
73,
Tom Donaly, KA6RUH

4074. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 02:06:54 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <2nokg.24643$VE1.19051@newssvr14.news.prodigy.com>
Source record: 57866

Tom Ring wrote:

> Cecil Moore wrote:
>
>> be true for you to be correct. Sorry Tom, please peddle
>> your magical thinking to someone else. What do you think
>> about the 2000 ARRL Handbook quote?
>>
>> "Precipitation static is an almost continuous hash-type noise
>> that often accompanies various kinds of precipitation, including
>> snowfall. Precipitation static is caused by rain drops, snowflakes
>> or even wind-blown dust, transferring a small electrical charge
>> on contact with an antenna."
>>
>> The physics of charged particles has been understood for
>> a century or so. I am not going to waste my time proving
>> those known and accepted facts of physics. It is up to you
>> and W8JI to prove a century of physics knowledge to be
>> wrong. Good luck on proving that all static is caused by
>> corona discharge even in the absence of the necessary
>> ionization that defines the word "corona".
>
>
> It especially shows up in the 300 inches a year lake effect snowfalls in
> northern NY. You can hear it on 6 and 2 quite well. These were DC
> grounded yagi antennas on all elements, so no corona available here,
> thank you.
>
> Also, K1RQG, who is net control of the EMENet on 14345 Sat and Sun
> mornings, had it so bad from rain last weekend that he couldn't copy
> most of the participants for a few minutes. And in a heavy rainstorm, I
> have doubts that it had much to do with corona.
>
> tom
> K0TAR

Grounding might make it worse. Can you see why?
73,
Tom Donaly, KA6RUH

4075. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 02:20:01 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44921551$0$6150$39cecf19@news.twtelecom.net>
Source record: 57867

w8ji@akorn.net wrote:

>>It especially shows up in the 300 inches a year lake effect snowfalls in
>>northern NY. You can hear it on 6 and 2 quite well. These were DC
>>grounded yagi antennas on all elements, so no corona available here,
>>thank you.
>
>
> What makes you think the charge gradient and corona goes away with a
> grounded element? Because there is never lightning and lightning never
> hits a grounded object? Where dod you get that idea?
>
> The earth is one terminal, the air and things in the air (like clouds)
> have a charge difference.
>

So this is an inverse form of corona? Where it comes from the surrounding charged air and particles (whatever type they are)? Because it's not the form I'm familiar with where the end of the antenna has a high voltage on it.

I am genuinely asking a question here. If this is the way that noise occurs, I'd like to know the physical method involved.

It still sounds like it matches the description of what is commonly called precipitation static, and it still makes a lot of noise, unless you'd like me to disbelieve my lieing ears.

tom
K0TAR

4076. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 02:23:22 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4492161a$0$6150$39cecf19@news.twtelecom.net>
Source record: 57868

Tom Donaly wrote:

>
>
> Grounding might make it worse. Can you see why?
> 73,
> Tom Donaly, KA6RUH

Yes, but I still doubt it is corona.

tom
K0TAR

4077. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 03:18:44 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <oqpkg.50861$Lm5.36926@newssvr12.news.prodigy.com>
Source record: 57869

Tom Donaly wrote:
> Ha, ha! Nice joke, Cecil. I'll tell you what: if you can show
> that a group of students can tell whether it's raining or not solely
> by listening to the static on a radio with an outside antenna, I
> might begin to believe part of what you say. Otherwise, all your
> talk about carefully selected references is little more than a
> pathetically hollow attempt at self justification.

For you to be right, Tom, every raindrop, every dust particle,
and every snowflake in the world must have exactly the same
charge as every antenna in the world. Please get real.
--
73, Cecil http://www.qsl.net/w5dxp

4078. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 03:22:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Atpkg.50862$Lm5.42830@newssvr12.news.prodigy.com>
Source record: 57870

Tom Ring wrote:
> It especially shows up in the 300 inches a year lake effect snowfalls in
> northern NY. You can hear it on 6 and 2 quite well. These were DC
> grounded yagi antennas on all elements, so no corona available here,
> thank you.
>
> Also, K1RQG, who is net control of the EMENet on 14345 Sat and Sun
> mornings, had it so bad from rain last weekend that he couldn't copy
> most of the participants for a few minutes. And in a heavy rainstorm, I
> have doubts that it had much to do with corona.

Tom, methinks we are having our legs pulled.
--
73, Cecil http://www.qsl.net/w5dxp

4079. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 03:36:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <HGpkg.50864$Lm5.47092@newssvr12.news.prodigy.com>
Source record: 57871

w8ji@akorn.net wrote:
> Do we have more lightning, which is caused by a charge difference
> between clouds and earth so severe it actually arcs for thousands of
> feet, in heavy rain or on clear dry days?

In Arizona, we have the worst precipitation static on clear dry
days without a cloud in sight. You have just made my argument.

> Do the leaders and streamers form on clear dry days, or when the
> weather is nasty?

If corona requires clouds, you have lost the argument.

> I wonder how many people really understand there is a huge potential
> difference between the air and earth even on a calm clear day, and
> nasty weather can just make it worse.

If it's not enough to cause ionization, it is NOT corona,
by definition. The charge buildup before a corona discharge
is NOT corona. If the charge doesn't result in ionization,
it is not corona.
--
73, Cecil http://www.qsl.net/w5dxp

4080. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 03:43:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <fNpkg.50865$Lm5.13875@newssvr12.news.prodigy.com>
Source record: 57872

Tom Donaly wrote:
> Grounding might make it worse. Can you see why?

Quoting the 2000 ARRL Handbook: "Electrical fields under
thunderstorms are sufficient to place many objects such
as trees, hair, and antennas, into corona discharge."

Of course, corona discharge exists and grounding an antenna
might make it worse. But corona discharge is not all that
exists.

And in the absence of clouds, corona discharge is not
likely to exist. Some other mechanism is obviously
responsible for clear-sky charged-particle static.
--
73, Cecil http://www.qsl.net/w5dxp

4081. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 03:57:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <i_pkg.50870$Lm5.8308@newssvr12.news.prodigy.com>
Source record: 57873

w8ji@akorn.net wrote:
> The earth is one terminal, the air and things in the air (like clouds)
> have a charge difference.

But that charge difference is NOT corona unless ionization occurs.
If the charge difference doesn't reach the ionization threshold,
it's not corona, by definition.
--
73, Cecil http://www.qsl.net/w5dxp

4082. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 04:50:57 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <RMqkg.28885$QP4.7369@fed1read12>
Source record: 57874
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

"clifto" <clifto@gmail.com> wrote in message
news:tue6m3-0iv.ln1@remote.clifto.com...
> Incidental note: I've never understood how people who use "it's" as a
> possessive never even think to use "hi's" (though some use "her's" and
> "their's").

Yup, me too. I listen to "A Way With Words," a radio program on KPBS
(available streaming at kpbs.org) whose host is language writer Richard
Lederer ("Anguished English," "Get Thee To A Punnery," etc). Richard said
that "it's" for "its" (possessive) was considered correct until near the end
of the 19th century. I didn't know that.

4083. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 05:50:35 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <AtGdnTrBz8yi2g_ZnZ2dnUVZ8sidnZ2d@bt.com>
Source record: 57875

Are there any measures of voltage, current, joules or cole
> slaw on antennas in this area? Do they experience the "noise"?
> Couldn't one connect a large capacitor circuit to store the charge
and
> trickle it to a battery?
==========

About 20 years ago I measured the charge produced on a 150-feet, long-wire, end-fed inverted-L antenna, using a DC, 0 to 50 micro-amp, moving coil meter.

It was a warm afternoon. Temperature about 25 degrees C. There was a clear-blue, cloudless sky with a dry breeze. I assume very low atmospheric humidity otherwise the charge would leaked away over the antenna's insulators.

There was a 300pF receiving-type, air-spaced tuning capacitor in series with the antenna. The other side of the capacitor was grounded via the transceiver which was not switched on.

Every few seconds the capacitor was breaking down with an audible click. I could not see a spark. The plates were spaced about 1mm apart. It was the clicks which drew my attention to what was going on. The clicks slowly varied at a rate of 1 every few seconds to as many as 5 or 6 per second.

I removed the capacitor and grounded the antenna through the micro-ammeter. The current varied around 10 to 20 microamps. After 5 or 10 minutes the effect gradually died away.

I can't remember the current polarity. The transceiver had not been damaged.

While making the connections with un-insulated aligator clips I received one or two mild shocks. All for the sake of science!

Later on in the day, clouds built up and there was a thunder and rain storm. Electricity had been in the air all along. How it got there I can't imagine except that it may have been due to the friction of dry air blowing past the antenna wire.

There was no precipitation unless it was plant pollen in the air. I don't suffer from hay fever or asthma.

Reg, G4FGQ

4084. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 10:06:28 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1150452388.504196.43150@c74g2000cwc.googlegroups.com>
Source record: 57876
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

Got AIDS from an old friend wrote:
> markie_morgan_rapesboys@yahoo.com wrote:
> > assraped by an old freind wrote:
> > > billy_shittydrawers_smith@yahoo.com wrote:
> \
> > > get
> >
> > Don't get help for your AIDS, just die from it.
> no AIDS here

Liar.

> but you are one sick bastard

You are the one who has sex with other men, animals and little boys.

4085. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 11:23:25 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1150457005.857466.114530@c74g2000cwc.googlegroups.com>
Source record: 57877
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

markie_morgan_rapesboys@yahoo.com wrote:
> Got AIDS from an old friend wrote:
> > markie_morgan_rapesboys@yahoo.com wrote:
> > > assraped by an old freind wrote:
> > > > billy_shittydrawers_smith@yahoo.com wrote:
> > \
> > > > get
> > >
> > > Don't get help for your AIDS, just die from it.
> > no AIDS here
>
> Liar.
no aids here
>
> > but you are one sick bastard
>
> You are the one who has sex with other men, animals and little boys.
get help you sack of shit

even my emenies reconizes I am better than your filthy sick mind wismen

4086. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 11:46:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sSwkg.58880$4L1.18613@newssvr11.news.prodigy.com>
Source record: 57878

Reg Edwards wrote:
> There was no precipitation unless it was plant pollen in the air. I
> don't suffer from hay fever or asthma.

Some 19th century doctors scoffed at the idea that there
could be germs so small that they could see them. :-)
Dust particles come in all sizes. Run some clear air
through a HEPA (High Efficiency Particulate Air) filter
and see what you get.

There are always particles in the air. Sometimes they
carry a charge. Air itself, is made up of particles.
Quantum Electrodynamics tells us that charge transfer is
impossible without particles.

For Tom^2 to be correct, every dust particle that touches
every antenna would have to carry the same identical charge
as the antenna to keep charge from transferring. I would
sure like to see them prove that assertion.
--
73, Cecil http://www.qsl.net/w5dxp

4087. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 12:23:56 UTC
From: w8ji@akorn.net
Message-ID: <1150460635.991135.150180@r2g2000cwb.googlegroups.com>
Source record: 57879

Tom Ring wrote:
> > The earth is one terminal, the air and things in the air (like clouds)
> > have a charge difference.
> >
>
> So this is an inverse form of corona? Where it comes from the
> surrounding charged air and particles (whatever type they are)? Because
> it's not the form I'm familiar with where the end of the antenna has a
> high voltage on it.

I don't understand that Tom.

What is "inverse corona"?

Corona comes from a charge difference between two things. In this case it is NOT a charge difference between the earth and the antenna that you could eliminate by shorting the antenna to the earth, it is a difference between the air around the antenna and the earth and things connected to earth. The corona is leaping off into space around the antenna, not back towards earth. Tying it to earth will only make it worse, not better.

> I am genuinely asking a question here. If this is the way that noise
> occurs, I'd like to know the physical method involved.

In every case I have looked at, and I have looked at dozens very carefully, it has been corna off the elements. That corna (and the resulting noise) occurs when there are particles, when there aren't, and at a rate different than the rate of particles hitting the antenna.

It occurs with radomes and insulated elements and without, it occurs with grounded elements and without.

It increases with increasing height, especially compared to surrounding objects. It is worse with protruding sharp points on the elements.

It is worse when the charge difference between earth and sky is greatest, and less when the charge difference is less. It is terrible when lightning is almost ready to strike. It often vanishes totally for a brief period after a ground to cloud lightning strike.

Of course a book, especially a handbook, might say it is something else. But then what they say should fit what occurs most of the time if what they say is mostly true.

In my experience, and I probably have much more than most people with this after changing dozens of antennas to try to eliminate this

problem, the idea the noise comes from an element "charging" or from particles hitting the antenna is largely incorrect.

I think that idea comes from reading and believing wive's tales and rumors, and not thinking and experimenting for oneself.

73 Tom

4088. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 13:11:46 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <m6ykg.196638$Fs1.100184@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57880

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> The earth is one terminal, the air and things in the air (like clouds)
>> have a charge difference.
>
>
> But that charge difference is NOT corona unless ionization occurs.
> If the charge difference doesn't reach the ionization threshold,
> it's not corona, by definition.

Cecil,

I am not entering this debate one way or the other. I do have a
question, however.

How do you determine when the ionization threshold has been reached?

73,
Gene
W4SZ

4089. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 13:19:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <jdykg.117059$dW3.105106@newssvr21.news.prodigy.com>
Source record: 57881

w8ji@akorn.net wrote:
> Corona comes from a charge difference between two things.

No, that's not complete. A charge difference is necessary
but not sufficient to cause corona. Corona comes from a charge
difference between two things that causes ionization of the air
around/between the two things. Corona, in the electrical sense
that we are using the word here, doesn't exist and cannot exist
without ionization. For this definition of the word, "corona",
my unabridged dictionary says, "7. Electrical: see corona
discharge".

In the web reference I posted yesterday, two charged spheres
arced before any corona was possible. Corona never existed
in that experiment even though arcing took place.

> In every case I have looked at, and I have looked at dozens very
> carefully, it has been corna off the elements. That corna (and the
> resulting noise) occurs when there are particles, when there aren't,
> and at a rate different than the rate of particles hitting the antenna.

Certainly white cars exist. That doesn't mean that all cars
are white.

> It occurs with radomes and insulated elements and without, it occurs
> with grounded elements and without.

Certainly corona exists. That doesn't mean the entire universe
is ruled by some Corona God.

> It increases with increasing height, especially compared to surrounding
> objects. It is worse with protruding sharp points on the elements.

For it to be defined as corona, it must ionize the air. How do
you prove that the air has indeed been ionized? At night, a
glow invariably accompanies corona ionization. Do your antennas
glow at night? Mine usually don't.

> It is worse when the charge difference between earth and sky is
> greatest, and less when the charge difference is less. It is terrible
> when lightning is almost ready to strike. It often vanishes totally for
> a brief period after a ground to cloud lightning strike.

"It" being corona, not clear-sky, dry-air, charged-particle
problems. Everyone agrees that corona exists, Tom. We just
disagree with you that corona is all that can cause a charge.
Is the 10 volt charge on a capacitor caused by corona?

> Of course a book, especially a handbook, might say it is something
> else. But then what they say should fit what occurs most of the time if
> what they say is mostly true.

Most of the time doesn't cut it, Tom. All it takes is one
example to the contrary to prove your all-inclusive assertions
to be false. Not all cars are white just because you have never
seen a colored car.

> In my experience, and I probably have much more than most people with
> this after changing dozens of antennas to try to eliminate this
> problem, the idea the noise comes from an element "charging" or from
> particles hitting the antenna is largely incorrect.

That may be true, but the question is: Do charged particles
hitting an antenna ever cause static discharge problems. If
it has ever occurred even once in history of this planet,
your assertions are wrong. It occurred in my antenna system
multiple times while I was living in the Arizona desert. There
was not a cloud in the entire state at some of those times.

According to the web source I posted yesterday, arcing can
completely eliminate corona because the arcing occurs *before*
the corona can possibly occur. The example given was between
two spherical electrodes. The corona example involved a
pointed electrode which caused corona to occur before the
arc.

> I think that idea comes from reading and believing wive's tales and
> rumors, and not thinking and experimenting for oneself.

I think you should stop worshiping the Corona God, go
out to Queen Creek, AZ and perform your experiments.
Please prove that every dust particle carries a charge
identical to the charge on every antenna.

You remind me of the host of scientists who believed that
the earth was never bombarded by meteors and comets
because they couldn't see more than a handful of impact
craters.

You can run the experiment for yourself, Tom. Set up an
inverted-V dipole and discharge a capacitor at one end
between one element and a ground plane. Guaranteed, you
will hear the noise in an RF receiver when there's no
sign of corona anywhere.
--
73, Cecil http://www.qsl.net/w5dxp

4090. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 13:20:44 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Meykg.196678$Fs1.171273@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57882

Cecil Moore wrote:
>
> For Tom^2 to be correct, every dust particle that touches
> every antenna would have to carry the same identical charge
> as the antenna to keep charge from transferring. I would
> sure like to see them prove that assertion.

Cecil,

More fractured physics.

If every interaction between objects requires that somehow the charge is transferred to keep things "identical", how did those nasty dust particles get charged in the first place?

I am not arguing about antenna noise. I am questioning your misuse of physics. There are no charge equalization laws.

73,
Gene
W4SZ

4091. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 13:33:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zqykg.117064$dW3.97380@newssvr21.news.prodigy.com>
Source record: 57883

Gene Fuller wrote:
> I am not entering this debate one way or the other. I do have a
> question, however.
>
> How do you determine when the ionization threshold has been reached?

Corona invariably causes a glow at night. I have witnessed
such a glow but not very often. I came across a calculation
of the ionization threshold in volts yesterday while on the
web. I don't remember the exact figure but it was in the
thousands of volts for average air conditions and varied
with the geometry of the conductor.

But the point is that, by definition, it is not corona until
ionization occurs. A wire in the air during high wind conditions
can accumulate charge from the charged particles but until it
accumulates enough charge to cause ionization of the air, it
is NOT corona, by definition.

W8JI is confusing cause and effect. The transfer of charge
from wind-driven charged particles can cause localized corona
but that's just an effect, NOT a cause. And if the antenna
wire is not allowed to reach the air ionization level,
charge may accumulate but corona will not occur.

Under thunderclouds, corona often occurs. I wouldn't try
to speculate whether rain or snow noise is caused by
charged particles or corona. But I will certainly speculate
that in a state without a cloud in the sky, a charge can
be deposited on an antenna by charged particles.
--
73, Cecil http://www.qsl.net/w5dxp

4092. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 13:47:38 UTC
From: w8ji@akorn.net
Message-ID: <1150465658.751015.125570@h76g2000cwa.googlegroups.com>
Source record: 57884

Cecil Moore wrote:

> W8JI is confusing cause and effect.

....and Cecil is confusing himself.

4093. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 13:51:46 UTC
From: w8ji@akorn.net
Message-ID: <1150465906.265488.200460@f6g2000cwb.googlegroups.com>
Source record: 57885

Cecil Moore wrote:
> Gene Fuller wrote:
> > I am not entering this debate one way or the other. I do have a
> > question, however.
> >
> > How do you determine when the ionization threshold has been reached?
>
> Corona invariably causes a glow at night. I have witnessed
> such a glow but not very often. I came across a calculation
> of the ionization threshold in volts yesterday while on the
> web. I don't remember the exact figure but it was in the
> thousands of volts for average air conditions and varied
> with the geometry of the conductor.

How many systems have you looked at Cecil where you were right next to
the antenna while this was going on?

More than I have or many times less?

My bet is many times less. Probably none.

I'd bet you never were on a 300 foot or taller tower or on the roof of
a building, and I'd also bet you never had multiple antennas of various
tyoes to compare.

I'd wager all your data comes from what you picture in your mind.

73 Tom

4094. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 13:52:45 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <NIykg.196811$Fs1.185044@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57886

Cecil,

First things first.

Ionization threshold has nothing to do with "voltage". It has everything
to do with field strength. This topic has been studied extensively for
centuries. Don't believe everything you find on the web, especially if
it requires "glow-in-the-dark" or "thousands of volts" as a determinant
for ionization.

73,
Gene
W4SZ

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> I am not entering this debate one way or the other. I do have a
>> question, however.
>>
>> How do you determine when the ionization threshold has been reached?
>
>
> Corona invariably causes a glow at night. I have witnessed
> such a glow but not very often. I came across a calculation
> of the ionization threshold in volts yesterday while on the
> web. I don't remember the exact figure but it was in the
> thousands of volts for average air conditions and varied
> with the geometry of the conductor.
>
> But the point is that, by definition, it is not corona until
> ionization occurs. A wire in the air during high wind conditions
> can accumulate charge from the charged particles but until it
> accumulates enough charge to cause ionization of the air, it
> is NOT corona, by definition.
>
> W8JI is confusing cause and effect. The transfer of charge
> from wind-driven charged particles can cause localized corona
> but that's just an effect, NOT a cause. And if the antenna
> wire is not allowed to reach the air ionization level,
> charge may accumulate but corona will not occur.
>
> Under thunderclouds, corona often occurs. I wouldn't try
> to speculate whether rain or snow noise is caused by
> charged particles or corona. But I will certainly speculate

> that in a state without a cloud in the sky, a charge can
> be deposited on an antenna by charged particles.

4095. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 14:12:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <4%ykg.45048$fb2.29105@newssvr27.news.prodigy.net>
Source record: 57887

w8ji@akorn.net wrote:
> Cecil Moore wrote:
>> W8JI is confusing cause and effect.
>
> ....and Cecil is confusing himself.

Charged dust particles can *cause* corona but they
don't necessarily cause corona. If the air is not
ionized, corona is impossible.
--
73, Cecil, http://www.qsl.net/w5dxp

4096. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 14:35:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Hkzkg.45051$fb2.12204@newssvr27.news.prodigy.net>
Source record: 57888

w8ji@akorn.net wrote:
> How many systems have you looked at Cecil where you were right next to
> the antenna while this was going on?

I don't know exactly how many. All it takes to prove
you wrong is a single one. If you simply admit that
at one time in the history of man, a charge accumulated
on an antenna without the presence of corona, I will
be satisfied. When you assert that 100% of all charged
up antennas is caused by corona, it doesn't matter
if you are right 99.99% of the time. Logically, you
are 100% wrong if 0.01% of charged up antennas do not
involve corona.

When there is not a cloud over the entire state of
Arizona, charged up antennas in the dry, dusty,
windy Arizona desert are not caused by corona.

> More than I have or many times less?

I multiply 6 times 7 once and get 42.
You multiply 6 times 7 ten times and get 56. Do
you really think you are right? The laws of physics
are not supposed to be the results of how many
flawed experiments are run.

Charged particles can exist in the absence of corona.
Like the cave men did, rub some amber against some
wool and then touch it to your dipole. That pop
you hear is NOT corona.

When a charged particle touches a reference bare
antenna wire, it transfers part of its charge to
the antenna. You have already agreed with that.
The rest is simple physics.

Exactly how do you prove that all charged up antennas
are causing ionization? What instrument did you use
to measure all that ionization?
--
73, Cecil, http://www.qsl.net/w5dxp

4097. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 14:49:26 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Wxzkg.60324$4L1.46212@newssvr11.news.prodigy.com>
Source record: 57889

Cecil Moore wrote:
> Reg Edwards wrote:
>
>> There was no precipitation unless it was plant pollen in the air. I
>> don't suffer from hay fever or asthma.
>
>
> Some 19th century doctors scoffed at the idea that there
> could be germs so small that they could see them. :-)
> Dust particles come in all sizes. Run some clear air
> through a HEPA (High Efficiency Particulate Air) filter
> and see what you get.
>
> There are always particles in the air. Sometimes they
> carry a charge. Air itself, is made up of particles.
> Quantum Electrodynamics tells us that charge transfer is
> impossible without particles.
>
> For Tom^2 to be correct, every dust particle that touches
> every antenna would have to carry the same identical charge
> as the antenna to keep charge from transferring. I would
> sure like to see them prove that assertion.

Cecil, if you're too chicken to do the experiment, just say so,
I'll understand. Also, quit misrepresenting my ideas. That's an
old Oakie debating trick that won't fly on this newsgroup. The first
thing you have to prove is that a charged particle striking your antenna
makes an audible noise in your receiver. Just because a charged particle
strikes your antenna doesn't mean you can hear it. I have an idea.
Borrow a big, old, awkward Texas kid from one of your neighbors.
Wash his head and blow dry his hair to get all the moisture out.
Now, have him stand out at your vertical and run a comb through
his hair. After the comb is charged, have him touch it to the antenna
while you listen to your radio inside the shack. See if you can hear
an audible click whenever the comb discharges into the antenna. If you
can hear something, it at least means that charged particles can make
a noise. If you can't,you have to rethink your position.
I know you go all gun shy and hysterical whenever someone mentions you
do an experiment, but it wouldn't kill you to try _something_ in order
to prove your point. You might learn something, too.
73,
Tom Donaly, KA6RUH

4098. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 14:58:17 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <dGzkg.45053$fb2.26583@newssvr27.news.prodigy.net>
Source record: 57890

Gene Fuller wrote:
> Ionization threshold has nothing to do with "voltage". It has everything
> to do with field strength.

Of course, static field strength implies energy which is
proportional to volts squared. Here's a quote from:

http://www.ce-mag.com/archive/1999/novdec/mrstatic.html

"A corona discharge is also called a silent discharge. It
may be maintained as long as the breakdown *field strength*
is exceeded in some regionï¿½that is, as long as the *voltage*
of the electrode or the *charge density* of the charged
insulator is high enough."

Just before the field strength is high enough to cause
ionization, the voltage between the electrodes can be
measured. I don't see how ionization could occur at
zero volts which you seem to imply is a possibility.
--
73, Cecil, http://www.qsl.net/w5dxp

4099. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 15:01:16 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <0Jzkg.117081$dW3.5139@newssvr21.news.prodigy.com>
Source record: 57891

Cecil Moore wrote:

> w8ji@akorn.net wrote:
>
>> Cecil Moore wrote:
>>
>>> W8JI is confusing cause and effect.
>>
>>
>> ....and Cecil is confusing himself.
>
>
> Charged dust particles can *cause* corona but they
> don't necessarily cause corona. If the air is not
> ionized, corona is impossible.

The air always has ions in it. It's one of the
mechanisms by which the giant spherical capacitor
called "the Earth" discharges. Quit changing the
subject, Cecil.
73,
Tom Donaly, KA6RUH

4100. Re: fs: Kenwood kpt50 repeater radio programmer

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 15:22:27 UTC
From: Skipp is back <skippsayshello@yahoo.com>
Message-ID: <e6uibjkur1@skeeter.ucdavis.edu>
Source record: 57892
Cross-posted to: rec.radio.amateur.equipment,rec.radio.swap,rec.radio.amateur.antenna

Man, the below is an old post... anyway the used kpt-50 programmer
is long gone/sold. I bought up a number of the last units Kenwood
had at the time and have been slowly selling them off. The Epcom
price for the kpt-50 is about $330 at last glance, I was selling
them for about $245 list and applying various discounts to get the
end price just about or just under $200... say about $195 per
unit. The mentioned price is for a new (not used) programmer with
the matching (and really handy) kpg software for use with a PC. Using
the matching software with a pc is really the only way to go. You
can save and retrive both base station and repeater station files,
which include the frequencies and ctcss (PL) - dcs (DPL) codes to
your computer hard drive (archived).

Anyway, I'm still around and still a full line Kenwood Dealer. Please
feel free to email me if you have any questions. Find me using the web
page url just below.

cheers,
skipp
www.radiowrench.com

: gl4871 <gl4871.297x22@news.radiobanter.com> wrote:
: [I would be willing to pay $140.00dollars for your kenwood kpt-50
: programer thank you Jerome
: =Skipp has Kenwood stuff] Kenwood kpt-50 repeater and radio proThis
: unit programs the Kenwood TK and TKR-720 / TKR-820 series repeater,
: base and mobile radios. It will also do (some of the) other similar
: Kenwood models.

: This unit is probably my last one for sale. I sold them on Ebay
: earlier
: this year for various amounts up to $239 each. This is an original
: kenwood unit and yes I'm an Authorized Kenwood Two-Way Radio Dealer -
: Service Center and would be happy to supply any two-way radio - parts
: needs you might have. Drop me a note if you have any Kenwood Two-Way
: question.

: This is a previously used unit, started life as my personal kpt50, lent
: it
: to "a friend" who had it over a year to program one "quick repeater
: job".
: Got it back just a short time ago. I will put a full new equipment
: warranty on it and provide copies of all the proper programming
: information. I had to use my last inventory unit in place of this unit
: while it went on vacation with my friend. Now it's back and I have one

: unit extra.

: I used to program the tkr-820 (and 720) repeaters by hand using this
: type
: unit, but forget that... this unit has the normal rs-232 pc port
: access
: which allows you to do everything on your related laptop and save the
: data
: in regular archive files. Much nicer... I'll include a regular copy
: of
: the pc software with the unit, not bad.

: Now the price, set below actual Dealer cost at $165 plus actual
: shipping,
: figure maybe $5 for USPS Priority Mail.

: OK, that's about it. Drop me an Email if your are interested. If no
: one
: responds within a week or two, I'll toss it up on Ebay. Don't be
: confused
: by the "clone units" often listed on Ebay. Some of the associated
: programming units don't work on all the models. I know because I
: bought
: one myself before I became a Kenwood Dealer some years ago.

: This is an original Kenwood made KPT-50 programmer.

: That's about it, remove the NOSPAMPLEASE from my email address if you
: want
: to drop me a related message. My ebay ID is over 700 actual... all
: positive feedback so I hopefully must be doing something right.

: Thank you for reading this post.i WOULD BE WILLING TO PAY $140.00
: DOLLARS FOR YOUR KENWOOD KPT-50 PROGRAMER.
: skipp

: skippNOSPAMPLEASE@pilot.ucdavis.edu
: i WOULD BE WILLING TO PAY $140.00 DOLLARS FOR KENWOULD KPT50
: PROGRAMER.i WOULD BE WILLING TO PAY $140.00 DOLLARS FOR YOUR KENWOOD
: PROGRAMER. YOU CAN EMAIL ME AT GL4871@ALLIANCECOM.NET THANK YOU JEROME
: Remove the NOSPAMPLEASE else I'll never receive your message.

: --
: gl4871

4101. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 15:32:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <BaAkg.45062$fb2.38813@newssvr27.news.prodigy.net>
Source record: 57893

Tom Donaly wrote:
> Cecil, if you're too chicken to do the experiment, just say so,
> I'll understand.

I did the experiment and posted how to do it.
Here it is again: Bring one end of a dipole down close
to the system ground rod. Charge up a capacitor to 12v.
Discharge the cap between the end of the dipole and
the ground rod. That pop you hear is NOT corona.
--
73, Cecil, http://www.qsl.net/w5dxp

4102. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 15:37:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <XeAkg.45063$fb2.21424@newssvr27.news.prodigy.net>
Source record: 57894

Tom Donaly wrote:
> The air always has ions in it.

I hope you understand the difference between isolated ions
existing in the air and the air being ionized into a
conducting path. Isolated ions is not corona.
--
73, Cecil, http://www.qsl.net/w5dxp

4103. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 15:41:46 UTC
From: w8ji@akorn.net
Message-ID: <1150472506.110656.119200@c74g2000cwc.googlegroups.com>
Source record: 57895

Cecil Moore wrote:
> Tom Donaly wrote:
> > Cecil, if you're too chicken to do the experiment, just say so,
> > I'll understand.
>
> I did the experiment and posted how to do it.
> Here it is again: Bring one end of a dipole down close
> to the system ground rod. Charge up a capacitor to 12v.
> Discharge the cap between the end of the dipole and
> the ground rod. That pop you hear is NOT corona.
> --
> 73, Cecil, http://www.qsl.net/w5dxp

Hmmm.

10uF capacitor charged to 12 volts = dust particle

How much charge can a dust particle hold as it moves through the air Cecil? Does it eventually assume the potential of the air? Can I substitute a dust particle for a 1pF capacitor? For a 10pF capacitor? For ten farads?

Why would anyone tgink that proves anything?

On the other hand I've been a few feet away from antennas in an undisturbed environment, and I've seen and heard the corna many times.

4104. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 16:03:14 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <6DAkg.31627$mF2.6511@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57896

Cecil Moore wrote:
> Gene Fuller wrote:
>> Ionization threshold has nothing to do with "voltage". It has
>> everything to do with field strength.
>
> Of course, static field strength implies energy which is
> proportional to volts squared. Here's a quote from:
>
> http://www.ce-mag.com/archive/1999/novdec/mrstatic.html
>
> "A corona discharge is also called a silent discharge. It
> may be maintained as long as the breakdown *field strength*
> is exceeded in some regionï¿½that is, as long as the *voltage*
> of the electrode or the *charge density* of the charged
> insulator is high enough."
>
> Just before the field strength is high enough to cause
> ionization, the voltage between the electrodes can be
> measured. I don't see how ionization could occur at
> zero volts which you seem to imply is a possibility.

Cecil,

> Of course, static field strength implies energy which is
> proportional to volts squared.

BZZZZT! More fractured physics.

Here's a hint. Voltage is often poorly defined since it requires a
reference. Very few physical phenomena depend on voltage as a primary
parameter.

> I don't see how ionization could occur at
> zero volts which you seem to imply is a possibility.

Huh?? Did I say that?

73,
Gene
W4SZ

4105. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 16:13:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <tMAkg.45067$fb2.28112@newssvr27.news.prodigy.net>
Source record: 57897

w8ji@akorn.net wrote:
> 10uF capacitor charged to 12 volts = dust particle

Nope, 1uF cap charged to 12 volts = charge.

One charged dust particle = charge.

I've never said I have ever heard a single particle
discharge. It was someone else who said that. I agree
with the 2000 ARRL Handbook when they said it was
"almost continuous". I have certainly heard that
"hash-type noise" get worse with wind speed. I wish
I had made S-meter measurements.

"Precipitation static is an almost continuous hash-type noise
that often accompanies various kinds of precipitation, including
snowfall. Precipitation static is caused by rain drops, snowflakes
or even *wind-blown dust*, transferring a small electrical charge
on contact with an antenna."

But what I am saying certainly makes a lot more sense
than your implication that all particles have exactly
the same charge as all antennas.
--
73, Cecil, http://www.qsl.net/w5dxp

4106. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 16:23:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <8WAkg.45068$fb2.43923@newssvr27.news.prodigy.net>
Source record: 57898

Gene Fuller wrote:
> Voltage is often poorly defined since it requires a
> reference.

Yes, and the web page reference provided a well defined
reference between two electrodes with known capacitance.
There is *always* a relationship between electric field
strength and voltage. I disagree that they are unrelated
as you implied.

>> I don't see how ionization could occur at
>> zero volts which you seem to imply is a possibility.
>
> Huh?? Did I say that?

No, but you implied it when you said "ionization threshold
has *nothing* to do with voltage". Nothing is zero so you
implied an ionization threshold is completely unrelated and
independent of volts. Do you want to amend that statement?
Maybe: "The relationship between field strength and voltage
is sometimes difficult to determine."?
--
73, Cecil, http://www.qsl.net/w5dxp

4107. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 16:33:40 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <VNqdnccaYZR0QA_ZRVny3g@bt.com>
Source record: 57899

"Reg Edwards" wrote
> About 20 years ago I measured the charge produced on a 150-feet,
> long-wire, end-fed inverted-L antenna, using a DC, 0 to 50
micro-amp,
> moving coil meter.
>
==========

The VLF capacitance to ground of the 30-feet high antenna is about
250 pico-farads. Total capacitance including the air-spaced tuning
capacitor = 550 pico-farads.

Assuming a capacitor breakdown voltage of 2000 volts and a breakdown
rate of once per second, then leakage over several antenna insulators
must have been about 1800 megohms. A not unreasonable figure.

It's surprising what can be deduced from a simple but fundamental
relationship such as -

Q = C * V = I * T

where Q = capacitor charge in Coulombs, C = Farads, V = volts, I =
amps, T = seconds.

It's only arithmetic. ;o)

You could now estimate the receiver noise level in dBm, due to
precipitation of rain drops of given average diameter, on an antenna
at a rate of N drops per second, each drop charged up to a potential
of V volts relative to ground. You would, of course, have to take
receiver bandwidth and a lot of other things into account. So it's
probably not worth the time and trouble.

Reg.

4108. Force 12 C-3 on 6 Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 17:16:38 UTC
From: Win <w0lz@winlyn.us>
Message-ID: <kgp592pk5sl0j402av69i9udu6rou3lb4p@4ax.com>
Source record: 57900

I have been told that the Force 12 C-3SS does not have much of a pattern on 6 meters. Today, however, on 6 meters, with a C-3SS, it appeared that I had good forward lobe, and maybe even some front to back.

Has anyone modeled this antenna for 6 meter. If so I would love to see the pattern.

Win, w0lz

4109. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 18:00:59 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <vlCkg.61955$4L1.34265@newssvr11.news.prodigy.com>
Source record: 57901

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Cecil, if you're too chicken to do the experiment, just say so,
>> I'll understand.
>
>
> I did the experiment and posted how to do it.
> Here it is again: Bring one end of a dipole down close
> to the system ground rod. Charge up a capacitor to 12v.
> Discharge the cap between the end of the dipole and
> the ground rod. That pop you hear is NOT corona.

Most raindrops don't have a little plate and a wire to ground.
In order to mimic a raindrop, Cecil, you'd have to leave the
ground terminal of your capacitor floating. Do that and tell me
what you hear. Anyway, you're still not addressing the real
issue: can you tell whether or not it's raining solely by
listening to the static noise on your antenna?
73,
Tom Donaly, KA6RUH

4110. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 18:03:45 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <5oCkg.61981$4L1.49994@newssvr11.news.prodigy.com>
Source record: 57902

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> The air always has ions in it.
>
>
> I hope you understand the difference between isolated ions
> existing in the air and the air being ionized into a
> conducting path. Isolated ions is not corona.

Nevertheless, air is in a constant state of conduction. It may only be picoamps per square meter but it still exists and it's what causes the earth to be a lousy capacitor.
73,
Tom Donaly, KA6RUH

4111. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 18:07:49 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <VrCkg.62015$4L1.46499@newssvr11.news.prodigy.com>
Source record: 57903

Cecil Moore wrote:

> Gene Fuller wrote:
>
>> Voltage is often poorly defined since it requires a reference.
>
>
> Yes, and the web page reference provided a well defined
> reference between two electrodes with known capacitance.
> There is *always* a relationship between electric field
> strength and voltage. I disagree that they are unrelated
> as you implied.
>
>>> I don't see how ionization could occur at
>>> zero volts which you seem to imply is a possibility.
>>
>>
>> Huh?? Did I say that?
>
>
> No, but you implied it when you said "ionization threshold
> has *nothing* to do with voltage". Nothing is zero so you
> implied an ionization threshold is completely unrelated and
> independent of volts. Do you want to amend that statement?
> Maybe: "The relationship between field strength and voltage
> is sometimes difficult to determine."?

If I remember right, your "Dr. Static" thought that you can't
have a voltage without the presence of a conductor. You ought to
read what these guys write before you quote them.
73,
Tom Donaly, KA6RUH

4112. Re: newbie UHF antenna question

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 18:54:49 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6uupqhmo1@avnika.corp.mot.com>
Source record: 57904

Ham or commercial? It makes a difference.

73, Steve

"Mike" <meb58optonline.net> wrote in message
news:jcg09290feuu9dt7poubpt873k2e7kbps5@4ax.com...
> Hi...I have a mototola ht1000 uhf walkie talkie. I would like to
> install an outdoor antenna on my house to increase my range. Can
> someone please advise me to a site or any other info that could help
> me out? It currently has a small rubber antenna on it that I would
> like to improve on when Im home....Thank You.....

4113. Re: Wide bandwidth ladder line J-pole for 6-Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 18:59:44 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6uv30$hn3$1@avnika.corp.mot.com>
Source record: 57905

"Chuck Olson" <chuckolson01@REMOVETHIScomcast.net> wrote in message
news:V5adnegPcuxKsBLZnZ2dnUVZ_qKdnZ2d@comcast.com...
>
> "Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
> news:e6n2i3$pf0$1@avnika.corp.mot.com...
> >
[...snip...]

> > Then I'd like clarification on your comment:
> > "... If you analyze the operation of the very successful "Open Stub
> > > J-Pole" that Arrow makes, you will find they use the 0.95 FV for both
> the
> > > radiator and the stub,..."
> >
> > Can you be more specific about this. What is the electrical length of
the
> > stub for said analysis? I like that design, though there is controversy
> > about it.
>
> I'm old fashioned, so I use an HP17BII calculator which has a "solve"
> function, and with the formula, LIN = 11811 / F(MHZ) / 4 x VF, given any
two
> of LIN, FMHZ, and FV, I can obtain the third for a 1/4 wave stub.
>
> We find on the Arrow site http://www.arrowantennas.com/j-pole.html the
> longest element for operation at 146 MHz is 57.5", and the shorter
element
> that makes the 1/4-wave stub is 19.25". With FMHZ = 146 and LIN = 19.25"
we
> solve for VF of that shorter element and get 0.95 (which refers to the
free
> space 1/4-wave as 1.00). Subtracting the 19.25 from 57.5 we get the
radiator
> length of 38.25". Since that is a 1/2-wave length, we divide by 2 so we
can
> use the 1/4-wave formula, and solving for VF we again get 0.95. I hope
this
> helps.
>

OK, then I believe you are assuming the short section is exactly 1/4 wave?
That's what I was after. I'm not convinced this is the case, but it is a
complex arrangement...matching 50 to an end fed half-wave.

73, Steve, K9DCI

4114. Re: Wide bandwidth ladder line J-pole for 6-Meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 19:05:44 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e6uve9hpk1@avnika.corp.mot.com>
Source record: 57906

"Bob Miller" <NOSPAM@neosoft.com> wrote in message
news:heb392hq0bff65fq5uuqaiequ52uhukp1n@4ax.com...
> On Tue, 13 Jun 2006 14:27:14 -0700, "Chuck Olson"
> <chuckolson01@REMOVETHIScomcast.net> wrote:
>
> >
> >"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
> >news:e6n2i3$pf0$1@avnika.corp.mot.com...
> >>
> >> "Chuck Olson" <chuckolson01@REMOVETHIScomcast.net> wrote in message
> >> news:Ts-dndx_b-BRkBPZnZ2dnUVZ_oydnZ2d@comcast.com...
> >> > Today I clipped out the connection I had made at the bottom of the
> >> radiator,
> >> > and the SWR bandwidth remained 2MHz as is was with the connection.
The
> >> group
> >> > of SWR measurements moved up an average of 150 KHz from my readings
with
> >> the
> >> > connection, but otherwise the performance of the "Slim Jim"
> >configuration
> >> is
> >> > identical. The length of the gap may now serve as a tuning mechanism,
> >> which
> >> > wasn't a feature with the bottom connection, and the archives show
some
> >> > builders made good use of that facility. Thanks for spotting the
> >> similarity,
> >> > Jeff. My 6M antenna will no doubt be better for it.
> >> > 73, Chuck
> >>
> >>
> >> Chuck,
> >> I searched on Slim-Jim. Let me see if I understand correctly.
> >> Slim-Jim is a twin-lead or ladder-line type J antenna with the *top* of
> >the
> >> half-wave (dual conductor) radiator ends connected.
> >> Yours has the bottom of the 1/2 wave ends connected.
> >
> >Yes, I conncted both top and bottom of the radiator to the previously
> >floating wire, and when I removed the bottom connection, the SWR
bandwidth
> >remained as before, so the bottom connection does not appear to be
> >necessary. The top connection is very easy, and evidently that's all you

> >need, so no doubt about it - - it becomes a Slim-Jim.
> >
> >> Am I to understand that the Slim-Jim configuration and yours have very
> >> similar SWR BW?
> >
> >Yes.
> >
> >> This is good to know.
> >>
> >> Then I'd like clarification on your comment:
> >> "... If you analyze the operation of the very successful "Open Stub
> >> > J-Pole" that Arrow makes, you will find they use the 0.95 FV for both
> >the
> >> > radiator and the stub,..."
> >>
> >> Can you be more specific about this. What is the electrical length of
the
> >> stub for said analysis? I like that design, though there is
controversy
> >> about it.
> >
> >I'm old fashioned, so I use an HP17BII calculator which has a "solve"
> >function, and with the formula, LIN = 11811 / F(MHZ) / 4 x VF, given any
two
> >of LIN, FMHZ, and FV, I can obtain the third for a 1/4 wave stub.
> >
> >We find on the Arrow site http://www.arrowantennas.com/j-pole.html the
> >longest element for operation at 146 MHz is 57.5", and the shorter
element
> >that makes the 1/4-wave stub is 19.25". With FMHZ = 146 and LIN = 19.25"
we
> >solve for VF of that shorter element and get 0.95 (which refers to the
free
> >space 1/4-wave as 1.00). Subtracting the 19.25 from 57.5 we get the
radiator
> >length of 38.25". Since that is a 1/2-wave length, we divide by 2 so we
can
> >use the 1/4-wave formula, and solving for VF we again get 0.95. I hope
this
> >helps.
> >
> >>
> >> 73, Steve, K9DCi
> >>
> >>
> >
> >Best regards,
> >
> >Chuck, W6PKP
> >

>
> My 2-meter ladderline j-pole is connected at the bottom of the
> apparatus only, forming the hook of the so-called "J". Yours is
> connected at the very top and very bottom, forming kind of a double
> "J"?
>
> bob
> k5qwg

Yea, there's another double back at the top if you connect it there. And it is easier at th etop with twin-lead. ... simply makes that upper half-wave a single parallel sonductor, instead of one with a floating conductor next to it. I wouldn't be surprised if you couldn't widen the bandwidth a bit by playing with the length of that floating wire. However, connecting it at either the top and/or botton seems to make a big improvement very easily. I'd have to think a bit as to why the floating wire reduces the bandwidth...or the converse if the wider bandth is simply a case of a "thicker" condustor simulated by the parallel wires.

73, Steve, k9DCI

4115. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 19:38:55 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <NrWdnR2cwYpTlQ7ZnZ2dnUVZ_v-dnZ2d@comcast.com>
Source record: 57907
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap

an_old_friend wrote:
> Re-Morse wrote:
>
>>So when you work someone on HF phone you can ask:
>>
>>Did you pass a code test or are you just a phony?
>>
>>
>>LOL.
>>
>>Remorse
>
> gte help loser

Loser?? You can't even spell!! What does "gte' mean??

Or, did you forget to turm ON your spell checker?

But, I did like the play on words: 'phoney'
>

4116. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 19:58:05 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <h3Ekg.51027$Lm5.42054@newssvr12.news.prodigy.com>
Source record: 57908

Gene Fuller wrote:
> If every interaction between objects requires that somehow the charge is
> transferred to keep things "identical", how did those nasty dust
> particles get charged in the first place?

Huh? It is you who says the dust particles carry exactly the
same charge as the antenna they are encountering. Otherwise,
there is current flow in the antenna system which you deny.

> I am not arguing about antenna noise. I am questioning your misuse of
> physics. There are no charge equalization laws.

Huh? Place a charge on a wire. Doesn't current flow in
both directions until the charge is equalized throughout
the conductor? Did my college professors lie to me?
--
73, Cecil http://www.qsl.net/w5dxp

4117. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 20:04:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <D9Ekg.51030$Lm5.30952@newssvr12.news.prodigy.com>
Source record: 57909

Tom Donaly wrote:
> Anyway, you're still not addressing the real
> issue: can you tell whether or not it's raining solely by
> listening to the static noise on your antenna?

No, but in Queen Creek, AZ, I could look outside and not see
a cloud in sight. I could look at the weather radar and
see there wasn't a cloud over the entire state of Arizona.
I probably could be convinced that static electricity
during rain or snow was corona if I had not experienced
the clear-sky charged-particle effect in Arizona. I suspect
that neither you nor W8JI has ever experienced the clear-sky
charged-particle effect and therefore deny its existence.
I know better from my own personal experience as do others.
--
73, Cecil http://www.qsl.net/w5dxp

4118. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 20:05:52 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e6v36k$nu1$1@news.service.uci.edu>
Source record: 57910

Cecil Moore wrote:

> I've never said I have ever heard a single particle
> discharge. It was someone else who said that. I agree
> with the 2000 ARRL Handbook when they said it was
> "almost continuous". I have certainly heard that
> "hash-type noise" get worse with wind speed. I wish
> I had made S-meter measurements.

Were having a 'Santa Ana' wind today in
So Cal. High ion concentration. S9+
noise levels on the HF bands. Happens
almost every time we have a 'Santa Ana'
condition.

73, ac6xg

4119. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 20:15:31 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <DjEkg.51034$Lm5.47623@newssvr12.news.prodigy.com>
Source record: 57911

Tom Donaly wrote:
> Nevertheless, air is in a constant state of conduction.

Nevertheless, that is *NOT* corona.

You will be glad to hear that Madisonville, TX is
experiencing rather severe corona effects today.
The knife switches that I use to vary the length
of my transmission line are snap, cracklin', and
poppin'. In this high humidity region of Texas,
I am not sure that charged-particle static ever
occurs. However, I am absolutely sure that it
sometimes occurs in Queen Creek, AZ, where I
lived for 11 years.
--
73, Cecil http://www.qsl.net/w5dxp

4120. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 20:16:54 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <WkEkg.118090$dW3.71154@newssvr21.news.prodigy.com>
Source record: 57912

Jim Kelley wrote:
>
>
> Cecil Moore wrote:
>
>> I've never said I have ever heard a single particle
>> discharge. It was someone else who said that. I agree
>> with the 2000 ARRL Handbook when they said it was
>> "almost continuous". I have certainly heard that
>> "hash-type noise" get worse with wind speed. I wish
>> I had made S-meter measurements.
>
>
> Were having a 'Santa Ana' wind today in So Cal. High ion concentration.
> S9+ noise levels on the HF bands. Happens almost every time we have a
> 'Santa Ana' condition.
>
> 73, ac6xg
>
>

Hot, dry air off the desert. Just like a clothes dryer. You guys are
suffering from static cling.
73,
Tom Donaly, KA6RUH

4121. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 20:18:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <DmEkg.51037$Lm5.40035@newssvr12.news.prodigy.com>
Source record: 57913

Jim Kelley wrote:
>
> Cecil Moore wrote:
>> I've never said I have ever heard a single particle
>> discharge. It was someone else who said that. I agree
>> with the 2000 ARRL Handbook when they said it was
>> "almost continuous". I have certainly heard that
>> "hash-type noise" get worse with wind speed. I wish
>> I had made S-meter measurements.
>
> Were having a 'Santa Ana' wind today in So Cal. High ion concentration.
> S9+ noise levels on the HF bands. Happens almost every time we have a
> 'Santa Ana' condition.

So Jim, would you say that's corona discharge or dry-air
charged-particle problems?
--
73, Cecil http://www.qsl.net/w5dxp

4122. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 20:20:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <4oEkg.51038$Lm5.8287@newssvr12.news.prodigy.com>
Source record: 57914

Tom Donaly wrote:
> Hot, dry air off the desert. Just like a clothes dryer. You guys are
> suffering from static cling.

"Nevertheless", unrelated to corona.
--
73, Cecil http://www.qsl.net/w5dxp

4123. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 20:35:18 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <aCEkg.148630$F_3.9033@newssvr29.news.prodigy.net>
Source record: 57915

Jim Kelley wrote:
> Were having a 'Santa Ana' wind today in So Cal. High ion concentration.
> S9+ noise levels on the HF bands. Happens almost every time we have a
> 'Santa Ana' condition.

Jim, I forgot to ask. Do you have a bare-wire dipole
with no DC connection between the elements? If so,
does the coax connector ever arc when you disconnect
it from your system?

The first time I encountered this phenomenon in Arizona,
my G5RV coax connector was arcing while connected to
my IC-745. I disconnected the coax from my transceiver
and tossed it on the floor. It woke me up arcing and
scorching my carpet. Shorting the coax conductors
cured the arcing problem.

It was a clear starry night with the wind blowing about
30 mph. I have a hard time diagnosing that as a corona
problem.
--
73, Cecil http://www.qsl.net/w5dxp

4124. Resonant stub measurement

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 20:42:48 UTC
From: Chuck Olson <chuckolson01@REMOVETHIScomcast.net>
Message-ID: <NPCdnemFTdwxig7ZnZ2dnUVZ_vydnZ2d@comcast.com>
Source record: 57916

I think I've found a way to measure the resonant frequency of a shorted stub for the purpose of determining the Velocity Factor of twinlead cable. Unfortunately it requires the use of an HP3577A Network Analyzer, but I latched on to a used one a few years ago on Ebay, so I can have all kinds of fun with it. But there's a question of how to interpret the results.

I use two small one turn Faraday-shielded loops that I made out of RG58 a while back to induce or detect signals in various circuitry. For the purpose of this measurement, I loosely couple two of them, one from the analyzer source and the other to its receiver, about 4" apart with the loops parallel and axially aligned. Then I introduce the stub midway into the space between the loops, oriented for a maximum effect and observe a small peak followed by a small dip in the received spectrum sweep. My question is, which is the true measurement of the resonance of the stub - - the peak or the dip or the zero-crossing between them, and why? Up to now, I've felt the dip is the correct feature to use, since at resonance the stub patently steals a little energy from the coupled fields, but that doesn't really say why it steals energy, or why the peak isn't just as valid an indicator.

Thanks for your help,

Chuck, W6PKP

4125. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 21:23:04 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <de1692hcp75am3t191nb1hv5eq57l0m1s2@4ax.com>
Source record: 57918

On Fri, 16 Jun 2006 18:03:45 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Cecil Moore wrote:
>
>> Tom Donaly wrote:
>>
>>> The air always has ions in it.
>>
>>
>> I hope you understand the difference between isolated ions
>> existing in the air and the air being ionized into a
>> conducting path. Isolated ions is not corona.
>
>Nevertheless, air is in a constant state of conduction. It may
>only be picoamps per square meter but it still exists and it's
>what causes the earth to be a lousy capacitor.

Hi Tom,

To support your statement with more specific characteristics, from a
1972 copy of "Astronautics and Aeronautics:"

That capacitor can be described as roughly 3.54 F to the
atmosphere at an elevation of 50km;

charged with a world-wide continuous 630 MW flow;

with a potential difference (average) of 350 KV;

and current (average) of 1800 A.

Taking this current, from earth, on a basis of cmï¿½, the current is
then 90 aA about 1 pA/mï¿½ as you said the same article goes as high as
2.5 pA/mï¿½. The difference is I used an homogenous earth model, the
author uses a real model with oceans and land with seasonal
variations.

"...the equipotential planes remain remarkably
horizontal in spite of winds, thermals, drizzle,
and cloud cover."

"few persons realize that when a person stands
in an open field on a clear day, his head has a
potential approximately 300V more positive than his feet
and .... The gradient averages about 180 V/m over land
in the summertime."

"The gradient in the austauch or mixing layer varies more
than at high altitudes because thermal convection
in this region often lifts ions and particles from such
sources as pollution, dust, and fog, thus generating an electrical
convection current."

This "austauch" layer, by observation of accompanying charts, appears
to be the first mile (actually 7000 feet) in elevation where
conductivity is flat at 200 micro-esu;
the electric field starts at 180 - 200 V/m,
to then vary downward to 60 V/m;
and Charges/cmï¿½ goes from 0 to -2 in the first 2000 feet,
and rises to +18.

The "austauch" layer may, in fact, be this first 2000 feet where the
charge density is negative. This accounts for the heavier positive
ion drift downward compared to the lighter negative ion rise into the
atmosphere. Be that as it may, the description is suitable for
antennas and high places.

73's
Richard Clark, KB7QHC

4126. Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 21:24:55 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150493095.604886.118330@p79g2000cwp.googlegroups.com>
Source record: 57917

I'm thinking about how I can make matching networks for the center of a 40 foot doublet for field day. I have a couple of those 20 footer fiberglass poles and a center mount and want to be able to match on 20m, 15m, and 10m for now, and there are lots of ways I could do this, ladderline to the base and a manual or auto tuner, autotuner at the feedpoint, etc, etc, but what I'd really like to do is have switchable fixed-tuned networks as my intent for this antenna is to be set up in the middle of a field in the clear at the same height all the time, and I want to have FAST bandswitching.

An autotuner really isn't in the cards financially, and needs power.

So, inductors are easy. I've got 500 feet of #10 copper wire.

I need capacitors. Preferably very very cheap ones, and I guess I need a number of values.

So it seems like 3/4" copper tubing (type L) slipped into 5/8" copper tubing with an air dielectric has a capacitance of 30pF per inch and a breakdown voltage of 1300V, ballpark in the *ideal* case.

Two questions: It seems like having a small gap in a cylindrical capacitor like this probably makes it act like more of a lumped-element capacitor than, say, a length of RG-58. I guess the latter is more like 30pF per FOOT, and so you need to use a much longer line in terms of a wavelength to get the desired capacitance. Sound right to you folks?

Second, I know the actual breakdown voltage of such an object is going to be much less than 30kV/cm*the gap width. Anyone using copper tubing caps like this (I saw a magloop "trombone" unit some years back like this) and what are the dimensions and actual breakdown voltages of real units?

I guess polishing the tubes, making the cut edges rounded and so forth will help some, but maintaining the gap will be tough. I can easily derate for concentricity errors, but what about the ends? What is a good overlap of the two sections? Is it better to have the tubes be exactly the same length, flush with each other, or maybe have one longer than the other one so that the ends of one are far away from the ends of the other, or is it likely no difference? I can always go to a bigger gap; 0.035in diametral difference is probably pushing it for 100W use but I haven't yet calculated likely voltages across these things, so here I'll take any general comments on making coaxial caps that stand high voltage. I'd probably prefer air dielectric to teflon heat-shrink or something, I don't know how available that is.

73,
Dan
N3OX

4127. Re: Don't do what I did.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 21:28:51 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97E4934F33305doldridgsprintca@64.59.135.159>
Source record: 57919

"K7ITM" <k7itm@msn.com> wrote in
news:1150345273.427051.74190@r2g2000cwb.googlegroups.com:

>
> VE2CJW wrote:
>> I thought I had a coax problem. Every time I tried to check the dc
>> resistance of a length of coax not connected to anything, I always
>> got a reading around 1.25 meg. This is not a short nor open line so I
>> checked another length and got similar results, so I was really
>> baffled. The odd thing is that both of these coaxes work perfectly
>> when connected to an antenna. I finally found out what I was doing
>> wrong. I was using probes that I had to hold with my fingers, so I
>> was really measuring the dc resistance between my fingers. After
>> watching my fingers, I get infinite dc resistance like I should. This
>> one really baffled me for some time, I don't wish something like that
>> to happen again.
>>
>> 73 Mike.
>
> Of course if it WAS a megohm shunt at the operating frequency, you
> wouldn't even notice it. But yes, your advice goes equally for other
> resistance checks. Don't expect to evaluate even a 10k resistor
> accurately by holding the test leads on it with your fingers. I have
> some voltmeter test leads with "grabber" hooks that I just love for
> things like that--these particular ones have points that work like
> regular probes too.
>
> If you really do want to check the coax's high resistance with your
> fingers, charge up a 30 meter or so length to about a kilovolt, let it
> rest with no applied voltage for several minutes, and see if it will
> "zap" you when you touch across the conductors. If you're crazy
> enough to try it, do NOT do it with two hands, because there's some
> danger with the current going through your upper body... If the line
> stays charged to, say, 9/10 of the original voltage for an hour, what
> resistance is that? Well, it would be roughly a ten hour time
> constant, and if it's 50-ohm line with solid polyethylene dielectric,
> it will be about 3000pF capacitance, so the resistance would be about
> 10^13 ohms. Don't be surprised if it's actually better than that,
> even...I have a couple metalized polypropylene caps I charged up a few
> years ago that I take out and measure every once in a while (very
> carefully with a very high impedance volt meter), and they are showing
> a self-discharge time constant in excess of 50 YEARS.

I got in some trouble in high school by bringing in some 600volt 8
microfarad oil caps and discharging them loudly against the metal desk

when (I thought) the teacher wasn't looking. I never did find out how long they would hold a charge, but they would load up to 500-600 volts and stay that way all day!

--
Dave Oldridge+
ICQ 1800667

4128. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 21:34:41 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <RtFkg.32356$mF2.23860@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57920

Cecil Moore wrote:
> Gene Fuller wrote:
>> If every interaction between objects requires that somehow the charge
>> is transferred to keep things "identical", how did those nasty dust
>> particles get charged in the first place?
>
> Huh? It is you who says the dust particles carry exactly the
> same charge as the antenna they are encountering. Otherwise,
> there is current flow in the antenna system which you deny.
>
>> I am not arguing about antenna noise. I am questioning your misuse of
>> physics. There are no charge equalization laws.
>
> Huh? Place a charge on a wire. Doesn't current flow in
> both directions until the charge is equalized throughout
> the conductor? Did my college professors lie to me?

Cecil,

If your college professors actually said that, then yes, they lied.

Try looking in any basic physics text. I believe you will find discussion of electrostatic forces, equipotential surfaces, fields, and Gauss' law. It is doubtful that you will find any technical description of charge equalization.

Simply grabbing random techno-factoids and assembling them into some sort of support for your case does not really help.

(I said nothing about dust particles. I merely asked you how they got charged.)

73,
Gene
W4SZ

4129. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 21:55:39 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <vNFkg.24870$VE1.1061@newssvr14.news.prodigy.com>
Source record: 57921

Gene Fuller wrote:
> Cecil Moore wrote:
>
>> Gene Fuller wrote:
>>
>>> If every interaction between objects requires that somehow the charge
>>> is transferred to keep things "identical", how did those nasty dust
>>> particles get charged in the first place?
>>
>>
>> Huh? It is you who says the dust particles carry exactly the
>> same charge as the antenna they are encountering. Otherwise,
>> there is current flow in the antenna system which you deny.
>>
>>> I am not arguing about antenna noise. I am questioning your misuse of
>>> physics. There are no charge equalization laws.
>>
>>
>> Huh? Place a charge on a wire. Doesn't current flow in
>> both directions until the charge is equalized throughout
>> the conductor? Did my college professors lie to me?
>
>
> Cecil,
>
> If your college professors actually said that, then yes, they lied.
>
> Try looking in any basic physics text. I believe you will find
> discussion of electrostatic forces, equipotential surfaces, fields, and
> Gauss' law. It is doubtful that you will find any technical description
> of charge equalization.
>
> Simply grabbing random techno-factoids and assembling them into some
> sort of support for your case does not really help.
>
>
> (I said nothing about dust particles. I merely asked you how they got
> charged.)
>
> 73,
> Gene
> W4SZ

It isn't the charge that is equal, it's the potential. If there were a potential difference between two places on a conductor, there would be a current and then the conditions wouldn't be static. David K. Cheng addresses this in his book _Field and Wave Electromagnetics_. I think it's Cecil's memory that lied to him rather than his professors.
73,
Tom Donaly, KA6RUH

4130. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 22:11:02 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <W%Fkg.24873$VE1.17046@newssvr14.news.prodigy.com>
Source record: 57922

Richard Clark wrote:

> On Fri, 16 Jun 2006 18:03:45 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>Cecil Moore wrote:
>>
>>
>>>Tom Donaly wrote:
>>>
>>>
>>>>The air always has ions in it.
>>>
>>>
>>>I hope you understand the difference between isolated ions
>>>existing in the air and the air being ionized into a
>>>conducting path. Isolated ions is not corona.
>>
>>Nevertheless, air is in a constant state of conduction. It may
>>only be picoamps per square meter but it still exists and it's
>>what causes the earth to be a lousy capacitor.
>
>
> Hi Tom,
>
> To support your statement with more specific characteristics, from a
> 1972 copy of "Astronautics and Aeronautics:"
>
> That capacitor can be described as roughly 3.54 F to the
> atmosphere at an elevation of 50km;
>
> charged with a world-wide continuous 630 MW flow;
>
> with a potential difference (average) of 350 KV;
>
> and current (average) of 1800 A.
>
> Taking this current, from earth, on a basis of cmï¿½, the current is
> then 90 aA about 1 pA/mï¿½ as you said the same article goes as high as
> 2.5 pA/mï¿½. The difference is I used an homogenous earth model, the
> author uses a real model with oceans and land with seasonal
> variations.
>

> "...the equipotential planes remain remarkably
> horizontal in spite of winds, thermals, drizzle,
> and cloud cover."
>
> "few persons realize that when a person stands
> in an open field on a clear day, his head has a
> potential approximately 300V more positive than his feet
> and .... The gradient averages about 180 V/m over land
> in the summertime."
>
> "The gradient in the austauch or mixing layer varies more
> than at high altitudes because thermal convection
> in this region often lifts ions and particles from such
> sources as pollution, dust, and fog, thus generating an electrical
> convection current."
>
> This "austauch" layer, by observation of accompanying charts, appears
> to be the first mile (actually 7000 feet) in elevation where
> conductivity is flat at 200 micro-esu;
> the electric field starts at 180 - 200 V/m,
> to then vary downward to 60 V/m;
> and Charges/cmï¿½ goes from 0 to -2 in the first 2000 feet,
> and rises to +18.
>
> The "austauch" layer may, in fact, be this first 2000 feet where the
> charge density is negative. This accounts for the heavier positive
> ion drift downward compared to the lighter negative ion rise into the
> atmosphere. Be that as it may, the description is suitable for
> antennas and high places.
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
that's pretty much the basis of my interpretation of
Tom Rauch's experience with precipitation static. Some authors
(Feynman for one)claim the earthly capacitor is constantly being
recharged from lightning storms in the tropics. I don't understand
dust storm electrodynamics, though, but since Saint Elmo's fire has
been seen in dust storms it may still have something to do with
the earth's electrical field added to whatever produces the
potentials within the dust storm.
73,
Tom Donaly, KA6RUH

4131. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 22:20:12 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <43b692pn4a0v1je14kjkhb3046984i3qef@4ax.com>
Source record: 57923

On 16 Jun 2006 14:24:55 -0700, "n3ox.dan@gmail.com"
<n3ox.dan@gmail.com> wrote:

>Two questions: It seems like having a small gap in a cylindrical
>capacitor like this probably makes it act like more of a lumped-element
>capacitor than, say, a length of RG-58. I guess the latter is more
>like 30pF per FOOT, and so you need to use a much longer line in terms
>of a wavelength to get the desired capacitance. Sound right to you
>folks?

It is an approximation to estimate the reactance of a given length by
multiplying the length by a capacitance per unit length figure. Error
becomes significant as the length increases, and the estimate is
probably not accurate enought for you purposes beyond about 15% - 20%
of a wavelength (electrically) and is grossly wrong over 25% of a
wavelength.

Owen
--

4132. Ham Survey: How many Appliance Operator classes do we need after code goes away?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 22:28:40 UTC
From: Skip Land <my.mail@skip.land>
Message-ID: <sgGkg.6851$lp.887@newsread3.news.pas.earthlink.net>
Source record: 57924
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.swap

We have three classes now, Should we increase or decrease?

I'm thinking we can reduce the number to two license classes:

One class for VHF/UHF so those people can screw up the repeaters, and one with a little harder test that adds HF privileges, for those that want to screw things up world wide.

SL

4133. Re: Ham Survey: How many Appliance Operator classes do we need after code goes away?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 22:34:04 UTC
From: Woody <woody.shadetree@verizon.net>
Message-ID: <wlGkg.258$DR1.193@trnddc02>
Source record: 57925
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.swap

Good God people... is everyone a bus driver or teacher??? [then again, the mentality is that of students] What is with this troll-o-rama since school ended????
Shouldn't you people be in Myrtle/Virginia beach or something??
sheesh.
rb

"Skip Land" <my.mail@skip.land> wrote in message news:sgGkg.6851$lp.887@newsread3.news.pas.earthlink.net...
> We have three classes now, Should we increase or decrease?
>
>
> I'm thinking we can reduce the number to two license classes:
>
> One class for VHF/UHF so those people can screw up the repeaters, and one
> with a little harder test that adds HF privileges, for those that want to
> screw things up world wide.
>
> SL

4134. Antenna Drawings

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 22:34:31 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <YlGkg.55557$9c6.30756@dukeread11>
Source record: 57776

It has been my experience that most people that are sharing their antenna designs on a web site have very bad drawings of those antennas so bad that it is hard to determine how to build them. Well I would like to help change that. If anyone here is actively maintaining a web site with antenna designs and would like better drawings, please let me know. I will draw them in 3D and give you the 3D model to put on your web site along with screen shots and or PDF drawings of the 3D model. For web site visitors to view the 3D model they have to download and install the free viewer and download the model. The viewer does work as a plug in to IE but it's not very easy to use that way.

--
Chris W
KE5GIX

Gift Giving Made Easy
Get the gifts you want &
give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

4135. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 22:50:36 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150498235.925052.47440@u72g2000cwu.googlegroups.com>
Source record: 57777

Right. So I figure if I don't need to ever exceed 10-15 inches of line to build a capacitative stub on HF, it's better than if I need to get out to many feet of line to get the same Xc.

So, here's a question. I've built a piece of such line since I posted.

The outer conductor is 15 inches long, 0.995 inch inner diameter. The inner conductor sticks out on both ends, 1.5 inches on one end, 8 inches on the other (I've not cut it yet). The outer diameter of the inner conductor is 0.875 inches. The dielectric is air, except for 1/2 inch at either end of the outer conductor where there are some little nylon rings to keep the inner conductor spaced.

Incidentally, Zo of this line should be 7.7 ohms or thereabouts. I expect the velocity factor is not so far from 1.

I attached it to an MFJ-259 via a small length (about 8 inches) of RG-58 coax cable with a connector on one end and stripped ends (only about an inch) on the other.

At low frequency (~2MHz) the analyzer shows a purely capacitative load, about 200pF. (some of which is from the RG-58, some from the pipe)

However, this object (pipes+coax) has a series resonance around 30MHz! (R=0,X=0).

This was not expected as the line is only 0.04 wavelengths long at this frequency.

If I calculate Xc from Xc=Zo/tan(length in degrees) at 2MHz (Zo=7.7ohm), I get Xc=482 ohms. C=165pF, not too far from measured, considering that the 8 inch RG-58 probably adds a few tens of pF.

If I calculate at 30MHz where I'm finding a resonance, I expect Xc=31 ohms and Xl (Zo*tan(length in degrees)) = 1.88 ohms, so it should still be strongly capacitative.

Where's my resonance coming from?

73,
Dan
N3OX

4136. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 23:41:17 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150501277.720010.39580@h76g2000cwa.googlegroups.com>
Source record: 57778

OK, so I've done another measurement in the interest of eliminating some variables.

1) I've cut the tubing so that the conductors so that they're the same length within 1 inch, one end is flush, there's an inch of the center conductor sticking out of the other end.

The shield is still 15 inches long.

2) I connected a 47 ohm resistor in series with the stub, so I should expect 47 ohms at resonance. The outer conductor of the stub is connected directly to the "ground" terminal on the MFJ-259B, the center conductor is connected via the 47 ohm resistor to the center conductor of the SO-239 with a banana plug.

The open stub is now resonant at about 52MHz. (47+j0) I calculate its physical length to be about 0.066 wavelength at this frequency.

3) If I connect the stub directly (short <1 inch wires) to the meter, and set it to measure capacitance, the low frequency (2MHz) test shows 166pF, exactly what I'd expect from this length of 7.7 ohm line.

The conclusions I could draw from this:

1) I'm dumb and missing something.
2) I'm using the meter wrong.
3) The velocity factor of the particular 7.7 ohm line I've built is only 26%

dididahdahdidit

Dan

4137. Re: Foreign hams should be concerned about FCC licensing changes as well.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 23:49:56 UTC
From: Graymond <rayncarol@gmail.com>
Message-ID: <1150501795.913615.294710@r2g2000cwb.googlegroups.com>
Source record: 57779
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap

Skip Land wrote:

> When bands are open they'll also have to listen to the retards.
True, but what's new ?

4138. Re: Foreign hams should be concerned about FCC licensing changes as well.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 23:50:44 UTC
From: Mustafa <mancity@shaw.ca>
Message-ID: <otHkg.45078$iF6.20640@pd7tw2no>
Source record: 57780
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap

"Skip Land" <my.mail@no.spam> wrote in message
news:rgGkg.6850$lp.5393@newsread3.news.pas.earthlink.net...
> When bands are open they'll also have to listen to the retards.

I'll be listening out for you then.

4139. Re: Ham Survey: How many Appliance Operator classes do we need after code goes away?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-16 23:53:44 UTC
From: Mustafa <herrbimmler@yahoo.co.uk>
Message-ID: <cwHkg.45105$iF6.22274@pd7tw2no>
Source record: 57781
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.swap

"Skip Land" <my.mail@skip.land> wrote in message
news:sgGkg.6851$lp.887@newsread3.news.pas.earthlink.net...
> We have three classes now, Should we increase or decrease?
>
>
> I'm thinking we can reduce the number to two license classes:
>
> One class for VHF/UHF so those people can screw up the repeaters, and one
> with a little harder test that adds HF privileges, for those that want to
> screw things up world wide.
>
> SL

So which group are you in, 'cause I doubt you have the skills or
intelligence to build your own equipment...Mr appliance operator in denial.

4140. Re: Needed: Kenwood TS-180 user manual

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 00:05:50 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <VMmdnftLmsfC2g7ZnZ2dnUVZ_vqdnZ2d@comcast.com>
Source record: 57782

"Buck" <not@this.time> wrote in message
news:ocu292ltc8f4v3tp1c6dvmtcll1pu852sv@4ax.com...
> Needed: Kenwood TS-180 user manual
>
> Please let me know if someone has one they are willing to part with or
> scan for me.
>
> Thanks
> Buck
> N4PGW
> --
> 73 for now
> Buck
> N4PGW
Go to www.manualman.com I see Pete has 3 of them in various state of wear.
To find the list, click on FAQ first. I think they all say TS180S.

Tam/WB2TT

4141. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 00:22:54 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44934B5E.2020505@fuse.net>
Source record: 57783

There ya go. REAL data.

4142. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 00:43:58 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150505038.408172.97350@p79g2000cwp.googlegroups.com>
Source record: 57784

I guess I'm learning a public lesson but I'm going to post this as a
wrapup.

I figured out the problem. My inch of wire appears to measure about
0.06 microhenries.

1/(2*Pi*sqrt(0.06microhenries*165picofarads) ~ 50MHz

73,
Dan
N3OX

4143. Re: Force 12 C-3 on 6 Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 00:48:42 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <4493516a$0$6155$39cecf19@news.twtelecom.net>
Source record: 57785

Win wrote:

> I have been told that the Force 12 C-3SS does not have much of a
> pattern on 6 meters. Today, however, on 6 meters, with a C-3SS, it
> appeared that I had good forward lobe, and maybe even some front to
> back.
>
> Has anyone modeled this antenna for 6 meter. If so I would love to
> see the pattern.
>
> Win, w0lz

Interesting. This antenna doesn't cover 6 meters according to their web
page.

http://force12inc.com/c3ssinfo.htm

tom
K0TAR

4144. Re: Antenna Drawings

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 01:41:47 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <v5Jkg.208$RU4.154@trnddc03>
Source record: 57786

"Chris W" <1qazse4@cox.net> wrote in message
news:YlGkg.55557$9c6.30756@dukeread11...
> It has been my experience that most people that are sharing their antenna
> designs on a web site have very bad drawings of those antennas so bad that
> it is hard to determine how to build them. Well I would like to help
> change that. If anyone here is actively maintaining a web site with
> antenna designs and would like better drawings, please let me know. I
> will draw them in 3D and give you the 3D model to put on your web site
> along with screen shots and or PDF drawings of the 3D model. For web site
> visitors to view the 3D model they have to download and install the free
> viewer and download the model. The viewer does work as a plug in to IE
> but it's not very easy to use that way.
>
>
> --
> Chris W
> KE5GIX
>
> Gift Giving Made Easy
> Get the gifts you want &
> give the gifts they want
> One stop wish list for any gift,
> from anywhere, for any occasion!
> http://thewishzone.com

Hi Chris

I just finished designing an antenna that I'm in the process of trying to describe on a web site. The antenna isnt of much value to most HAMs. I made it for receiving weather satellites (NOAA). I have a buddy in Finland who is helping me display the concept on his web site so anyone with an interest in weather satellite images can build their own hemispheric coverage antenna.
My buddy in Finland puts everything I send him on the web. So, this site may be confusing. But, the general idea of what I'm trying to make clean and clear is at http://213.250.83.83/~jerry/index.html.

How do I get an idea of the cost?

Jerry

4145. Re: Force 12 C-3 on 6 Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 02:17:09 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44936625$0$6147$39cecf19@news.twtelecom.net>
Source record: 57787

nospam@nouce.bellatlantic.net wrote:

>
>
> It woks on 6M because it's near the third harmonic of 20M, the
> elements act similar to an array of extended double zepps.
> Feeding it is the problem but gain and some front to back should be
> expected.
>
> Allison

Keep saying to yourself "There's no place like home, there's no place
like home..."

tom
K0TAR

4146. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 02:18:44 UTC
From: w8ji@akorn.net
Message-ID: <1150510724.399697.250400@g10g2000cwb.googlegroups.com>
Source record: 57788

Thanks Richard and Tom D.

I was worried for a while mythology and the magic dust (not Cheech and Chong style, but Texas style) would overshadow what really goes on.

Richard Clark wrote:
> "few persons realize that when a person stands
> in an open field on a clear day, his head has a
> potential approximately 300V more positive than his feet
> and .... The gradient averages about 180 V/m over land
> in the summertime."

We have to be careful with that!

Actually the impedance of the field is very high. When a person stands in an open field he actually perturbs the electric field very close to him because his body resistance is very very low compared to the impedance of the electric field. His feet are not really 300V more negative than his head unless you would replace everything below his eyebrows and above his ankles with a very good insulator.

On calm windless days the electric field in the air around a structure like an antenna is easily bled off even through extremely high values of resistance, and when the wind picks up, especially when there are particles of some type, the electric field impedance is effectively reduced.

There are some people who believe in magic. Some people think a tall metal structure has a potential difference between ends that builds up in storms, eventually charging the top of the structure so much it arcs to the clouds above.

To cure that pure fantasy they put little spikey balls on the top of their tower, somehow thinking the leakage from that corona that Cecil knows doesn't exist bleeds off the charge and makes the clouds above and earth below the same potential.

It's very strange how those people all argue with each other and argue against themselves, but then that's what happens when too much magic dust hits an antenna.

73 Tom

4147. Re: Force 12 C-3 on 6 Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 02:28:44 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <449368df$0$6141$39cecf19@news.twtelecom.net>
Source record: 57789

nospam@nouce.bellatlantic.net wrote:
>
> It woks on 6M because it's near the third harmonic of 20M, the
> elements act similar to an array of extended double zepps.
> Feeding it is the problem but gain and some front to back should be
> expected.
>
> Allison
>

There will be no front lobe. BTDT. There will be a lobe to the NW and NE if you define the desired main lobe as north. It may end up better or a lot worse depending on the "reflector", which isn't going to perform well as one.

The only way triple f yagis work well is if the elements are swept forward. That pushes the right and left lobes from the straight elements into the center.

tom
K0TAR

4148. Re: Force 12 C-3 on 6 Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 02:32:10 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <449369aa$0$6141$39cecf19@news.twtelecom.net>
Source record: 57790

Tom Ring wrote:

> The only way triple f yagis work well is if the elements are swept
> forward. That pushes the right and left lobes from the straight
> elements into the center.
>

Well known in the VHF and UHF design world, probably almost unknown here.

tom
K0TAR

4149. Re: Antenna Drawings

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 02:36:19 UTC
From: Wayne <mygarbagecan@verizon.net>
Message-ID: <DUJkg.356$DI2.92@trnddc05>
Source record: 57791

"Chris W" <1qazse4@cox.net> wrote in message
news:YlGkg.55557$9c6.30756@dukeread11...
> It has been my experience that most people that are sharing their antenna
> designs on a web site have very bad drawings of those antennas so bad that
> it is hard to determine how to build them. Well I would like to help
> change that. If anyone here is actively maintaining a web site with
> antenna designs and would like better drawings, please let me know. I
> will draw them in 3D and give you the 3D model to put on your web site
> along with screen shots and or PDF drawings of the 3D model. For web site
> visitors to view the 3D model they have to download and install the free
> viewer and download the model. The viewer does work as a plug in to IE
> but it's not very easy to use that way.
>
That's a great idea Chris. Also, it would be helpful if you posted some of
the antennas from QST on a website. For the past few years, they typically
do not have a clean electrical diagram of antennas described in articles.
They include so many mechanical details with the electrical, that it is
often hard to recognize something as simple as a loaded vertical. For
example, I never had the patience to figure out that GPS antenna they posted
a couple of years ago.

--Wayne

4150. Re: Antenna Drawings

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 02:37:47 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <0WJkg.55564$9c6.31463@dukeread11>
Source record: 57792

Jerry Martes wrote:
> "Chris W" <1qazse4@cox.net> wrote in message
> news:YlGkg.55557$9c6.30756@dukeread11...
>
>>It has been my experience that most people that are sharing their antenna
>>designs on a web site have very bad drawings of those antennas so bad that
>>it is hard to determine how to build them. Well I would like to help
>>change that. If anyone here is actively maintaining a web site with
>>antenna designs and would like better drawings, please let me know. I
>>will draw them in 3D and give you the 3D model to put on your web site
>>along with screen shots and or PDF drawings of the 3D model. For web site
>>visitors to view the 3D model they have to download and install the free
>>viewer and download the model. The viewer does work as a plug in to IE
>>but it's not very easy to use that way.
>>
>>
>>--
>>Chris W
>>KE5GIX
>>
>>Gift Giving Made Easy
>>Get the gifts you want &
>>give the gifts they want
>>One stop wish list for any gift,
>>from anywhere, for any occasion!
>>http://thewishzone.com
>
>
>
> Hi Chris
>
> I just finished designing an antenna that I'm in the process of trying to
> describe on a web site. The antenna isnt of much value to most HAMs. I
> made it for receiving weather satellites (NOAA). I have a buddy in Finland
> who is helping me display the concept on his web site so anyone with an
> interest in weather satellite images can build their own hemispheric
> coverage antenna.
> My buddy in Finland puts everything I send him on the web. So, this site
> may be confusing. But, the general idea of what I'm trying to make clean
> and clear is at http://213.250.83.83/~jerry/index.html.
>
> How do I get an idea of the cost?

I don't really care what the antennas are for as long as it is a community share type project and not something you are only going to sell plans for. As long as I don't get to many requests, I'll draw it up for free. In return I'm hoping some of you guys out there who know antenna design can help me with some antenna designs. Right now I am trying to figure out a good design for a LEO Satellite Phone that has a frequency range of 1616-1626.5Mhz.

So if you can get email me some sketches or what ever you have I will try and draw it up. The email I use for news groups is bogus. You can email me at a real address by looking for the "email support" link on my web site linked below.

--
Chris W
KE5GIX

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from anywhere, for any occasion!
http://thewishzone.com

4151. Re: Antenna Drawings

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 03:01:58 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <GgKkg.387$RU4.102@trnddc03>
Source record: 57793

"Chris W" <1qazse4@cox.net> wrote in message
news:0WJkg.55564$9c6.31463@dukeread11...
> Jerry Martes wrote:
>> "Chris W" <1qazse4@cox.net> wrote in message
>> news:YlGkg.55557$9c6.30756@dukeread11...
>>
>>>It has been my experience that most people that are sharing their antenna
>>>designs on a web site have very bad drawings of those antennas so bad
>>>that it is hard to determine how to build them. Well I would like to
>>>help change that. If anyone here is actively maintaining a web site with
>>>antenna designs and would like better drawings, please let me know. I
>>>will draw them in 3D and give you the 3D model to put on your web site
>>>along with screen shots and or PDF drawings of the 3D model. For web site
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>> hemispheric coverage antenna.
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> good design for a LEO Satellite Phone that has a frequency range of
> 1616-1626.5Mhz.
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> So if you can get email me some sketches or what ever you have I will try
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> from anywhere, for any occasion!
> http://thewishzone.com

4152. Re: Antenna Drawings

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 03:09:30 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <KnKkg.405$RU4.104@trnddc03>
Source record: 57794

"Chris W" <1qazse4@cox.net> wrote in message
news:0WJkg.55564$9c6.31463@dukeread11...
> Jerry Martes wrote:
>> "Chris W" <1qazse4@cox.net> wrote in message
>> news:YlGkg.55557$9c6.30756@dukeread11...
>>
>>>It has been my experience that most people that are sharing their antenna
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>> My buddy in Finland puts everything I send him on the web. So, this
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> good design for a LEO Satellite Phone that has a frequency range of
> 1616-1626.5Mhz.
>
> So if you can get email me some sketches or what ever you have I will try
> and draw it up. The email I use for news groups is bogus. You can email
> me at a real address by looking for the "email support" link on my web
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> http://thewishzone.com

Hi Chris

I had tried to contact you before replying to the group by clicking on
"reply to sender". Now I'll contact you at your site.
I have absolutely *no* interest in selling anything associated with this
antenna. Heck, I've paid to get others to try it just to get confirmation
of its usability.

Thanks
Jerry

4153. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 03:20:30 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <2yKkg.118336$dW3.62092@newssvr21.news.prodigy.com>
Source record: 57795

w8ji@akorn.net wrote:
> To cure that pure fantasy they put little spikey balls on the top of
> their tower, somehow thinking the leakage from that corona that Cecil
> knows doesn't exist bleeds off the charge and makes the clouds above
> and earth below the same potential.

Please stop fibbing about what I said. As far as I know,
virtually all the localized static problems I have here
in East Texas is corona. I am not aware of any charged
particle problems in my high humidity environment.

But I experienced something different in the Arizona
desert that cannot be explained by corona.
--
73, Cecil http://www.qsl.net/w5dxp

4154. Re: Antenna Drawings

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 03:23:52 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <cBKkg.433$RU4.326@trnddc03>
Source record: 57796

"Chris W" <1qazse4@cox.net> wrote in message
news:0WJkg.55564$9c6.31463@dukeread11...
> Jerry Martes wrote:
>> "Chris W" <1qazse4@cox.net> wrote in message
>> news:YlGkg.55557$9c6.30756@dukeread11...
>>
>>>It has been my experience that most people that are sharing their antenna
>>>designs on a web site have very bad drawings of those antennas so bad
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> return I'm hoping some of you guys out there who know antenna design can
> help me with some antenna designs. Right now I am trying to figure out a
> good design for a LEO Satellite Phone that has a frequency range of
> 1616-1626.5Mhz.
>

Hi Chris

The antenna I want to describe was designed for LEO polar orbiting NOAA satellites. It works well at 137 MHz. It is sensitive to RHCP thruout the hemisphere, so I suppose it would be an excellant design for 1.6 GHz LEO satellites. But, with 3 inch dipoles, it would be relatively difficult to construct.
I dont have any test equipment for anything over 400 MHz. If I could do any measurements at 1.6 GHz, I'd try to build a prototype 1.6 MHz version of this "Double Cross" antenna.

Jerry KD6JDJ

4155. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 03:24:44 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <0CKkg.118338$dW3.94930@newssvr21.news.prodigy.com>
Source record: 57797

Gene Fuller wrote:
> Cecil Moore wrote:
> Try looking in any basic physics text. I believe you will find
> discussion of electrostatic forces, equipotential surfaces, fields, and
> Gauss' law. It is doubtful that you will find any technical description
> of charge equalization.

On the contrary, my DC circuits book has an example of the
charges on two identical capacitors equalizing when they
are paralleled.
--
73, Cecil http://www.qsl.net/w5dxp

4156. Re: Ham Survey: How many Appliance Operator classes do we need after code goes away?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 03:36:07 UTC
From: Povertyhill <nowhere@nono.noway>
Message-ID: <HMKkg.12726$LT2.12247@tornado.tampabay.rr.com>
Source record: 57798
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.swap

You can change your name that you are showing but you are still the poor troll that just can't let go! Go play with your key or something! sheeez! Still posting from the same IP group!

4157. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 03:41:04 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <kRKkg.148806$F_3.106444@newssvr29.news.prodigy.net>
Source record: 57799

w8ji@akorn.net wrote:
> Thanks Richard and Tom D.
>
> I was worried for a while mythology and the magic dust (not Cheech and
> Chong style, but Texas style) would overshadow what really goes on.
>
> Richard Clark wrote:
>
>> "few persons realize that when a person stands
>> in an open field on a clear day, his head has a
>> potential approximately 300V more positive than his feet
>> and .... The gradient averages about 180 V/m over land
>> in the summertime."
>
>
> We have to be careful with that!
>
> Actually the impedance of the field is very high. When a person stands
> in an open field he actually perturbs the electric field very close to
> him because his body resistance is very very low compared to the
> impedance of the electric field. His feet are not really 300V more
> negative than his head unless you would replace everything below his
> eyebrows and above his ankles with a very good insulator.
>
> On calm windless days the electric field in the air around a structure
> like an antenna is easily bled off even through extremely high values
> of resistance, and when the wind picks up, especially when there are
> particles of some type, the electric field impedance is effectively
> reduced.
>
> There are some people who believe in magic. Some people think a tall
> metal structure has a potential difference between ends that builds up
> in storms, eventually charging the top of the structure so much it arcs
> to the clouds above.
>
> To cure that pure fantasy they put little spikey balls on the top of
> their tower, somehow thinking the leakage from that corona that Cecil
> knows doesn't exist bleeds off the charge and makes the clouds above
> and earth below the same potential.
>
> It's very strange how those people all argue with each other and argue
> against themselves, but then that's what happens when too much magic
> dust hits an antenna.
>

> 73 Tom
>

For something that doesn't get much ink in the textbooks, static electricity can be an awfully important subject. I spent years trying every half-baked, nuthouse remedy I could get my hands on to try to get paper through a printing press without having sheets cling to each other due to static attraction. Nothing actually worked very well. There were plenty of people willing to sell me remedies, though. I'm surprised no one is marketing a corona killer for antennas.
73,
Tom Donaly, KA6RUH

4158. Re: Force 12 C-3 on 6 Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 04:35:22 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12971kdecfb3342@corp.supernews.com>
Source record: 57800

Tom Ring wrote:
> Tom Ring wrote:
>
>> The only way triple f yagis work well is if the elements are swept
>> forward. That pushes the right and left lobes from the straight
>> elements into the center.
>>
>
> Well known in the VHF and UHF design world, probably almost unknown here.

That's too bad, since I've described that technique on this group a number of times in various contexts. It allows you to make a very nice 40/15 meter antenna, for example. Bending the wires of a 40 meter dipole in 30 degrees aligns the lobes on 15 meters, but doesn't alter the 40 meter pattern much. And of course it's widely used for TV antennas, where the upper VHF bands are about three times the frequency of the lower ones.

This doesn't make an extended double zepp as posted earlier. An EDZ is 5/4 wavelength, which has a single lobe in each direction broadside to the antenna when the antenna is straight. A dipole operated at three times its lowest resonant frequency is about 3/2 wavelength, and has four lobes in a cloverleaf pattern, rather than two in opposite directions like an EDZ. So it requires bending if you want just two major lobes in opposite directions.

Roy Lewallen, W7EL

4159. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 05:15:31 UTC
From: "Michael A. Terrell" <mike.terrell@earthlink.net>
Message-ID: <44938FBA.B98B46E4@earthlink.net>
Source record: 57801
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap

Dave wrote:
>
> an_old_friend wrote:
> >
> > gte help loser
>
> Loser?? You can't even spell!! What does "gte' mean??
>
> Or, did you forget to turm ON your spell checker?
>
> But, I did like the play on words: 'phoney'

GTE was "General Telephone, Inc." a company that ran small local
phone systems and sold early PBX systems. ;-)

--
Service to my country? Been there, Done that, and I've got my DD214 to
prove it.
Member of DAV #85.

Michael A. Terrell
Central Florida

4160. Re: I bought a large capacitance hat for my vertical, but the antenna still gets wet when it rains.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 05:53:39 UTC
From: Roger <Delete-Invallid.stuff.groups@tm.net>
Message-ID: <r167929cq49ov07ta9rfgejla5v2qdlihi@4ax.com>
Source record: 57802
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.shortwave

On Thu, 15 Jun 2006 21:50:57 -0700, "Sal M. Onella"
<salmonella@food.poisoning.org> wrote:

>
>"clifto" <clifto@gmail.com> wrote in message
>news:tue6m3-0iv.ln1@remote.clifto.com...
>> Incidental note: I've never understood how people who use "it's" as a
>> possessive never even think to use "hi's" (though some use "her's" and
>> "their's").
>
>Yup, me too. I listen to "A Way With Words," a radio program on KPBS
>(available streaming at kpbs.org) whose host is language writer Richard
>Lederer ("Anguished English," "Get Thee To A Punnery," etc). Richard said
>that "it's" for "its" (possessive) was considered correct until near the end
>of the 19th century. I didn't know that.

That's as bad as using entitled. Michigan Tech voted that as one of
the 10 words that should be eliminated in one of their yearly
selections.

Roger Halstead (K8RI & ARRL life member)
(N833R, S# CD-2 Worlds oldest Debonair)
www.rogerhalstead.com.

>

4161. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 06:26:42 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <4377925pib1eecfu6rbl7ek8u03os7ddpq@4ax.com>
Source record: 57803

On 16 Jun 2006 19:18:44 -0700, w8ji@akorn.net wrote:

>Thanks Richard and Tom D.
>
>I was worried for a while mythology and the magic dust (not Cheech and
>Chong style, but Texas style) would overshadow what really goes on.
>
>Richard Clark wrote:
>> "few persons realize that when a person stands
>> in an open field on a clear day, his head has a
>> potential approximately 300V more positive than his feet
>> and .... The gradient averages about 180 V/m over land
>> in the summertime."
>
>We have to be careful with that!
>
>Actually the impedance of the field is very high. When a person stands
>in an open field he actually perturbs the electric field very close to
>him because his body resistance is very very low compared to the
>impedance of the electric field. His feet are not really 300V more
>negative than his head unless you would replace everything below his
>eyebrows and above his ankles with a very good insulator.

Hi Tom,

Quite true. Its as if a needle has penetrated the equipotential
shells over that 300V span. Streamlines would probably reveal a dead
short to what are in the distance 300V/90aA = 3,333,333 GOhm resistive
paths.

The author's intent was to design a plane's auto leveling (in flight)
mechanism by sensing the voltage differential while banking. He
accomplished this by placing sensors at each wing tip turning the span
into a bridge circuit. He wasn't sensing voltage, but instead using
current. The plane would be already shorting out the potential, so he
had to turn this lemon into lemonade.

The problem was that the sensors had to grab hold of the current
before the massive short hogged it. The solution was to use mildly
radioactive isotopes to "make good electrical contact with samples of
air at two different points in the vertical potential gradient...."
Those radioactive sources were 500 ï¿½Curie Polonium Alpha emitters -
the kind I used to remove static from records back in the early 70s
(your solution to taking care of paper static, Tom D.).

73's
Richard Clark, KB7QHC

4162. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 12:43:22 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <vaqdneBpDuh0ZQ7ZnZ2dnUVZ_rOdnZ2d@comcast.com>
Source record: 57804

> Gene Fuller wrote:
>
>> Cecil Moore wrote:
>> Try looking in any basic physics text. I believe you will find
>> discussion of electrostatic forces, equipotential surfaces, fields,
>> and Gauss' law. It is doubtful that you will find any technical
>> description of charge equalization.
>
>
> On the contrary, my DC circuits book has an example of the
> charges on two identical capacitors equalizing when they
> are paralleled.

If I cause 10 coulombs of charge to be on a 10 meter long wire, do I not have a uniform charge distribution of 1 coulomb per meter on the wire, under dc steady state conditions? Isn't this required for any equipotential surface?

4163. Re: Force 12 C-3 on 6 Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 13:22:12 UTC
From: Win <w0lz@winlyn.us>
Message-ID: <1sv792ttf1hgoknbb2cbd77ejgv5bkefpp@4ax.com>
Source record: 57805

On Fri, 16 Jun 2006 12:16:38 -0500, Win <w0lz@winlyn.us> wrote:

Actuall, this explains a lot. I remember a slight null at center.

I will play with it again today, if the band opens. The antenna
loaded well with the internal tuner. I also received good reports.
My dilemma is, live with this for a while, or find a place on the
tower for another antenna.

Thanks, everyone.

Win, w0lz

4164. Re: Force 12 C-3 on 6 Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 13:37:59 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <449405b8$0$6146$39cecf19@news.twtelecom.net>
Source record: 57806

Roy Lewallen wrote:
> Tom Ring wrote:
>
>> Tom Ring wrote:
>>
>>> The only way triple f yagis work well is if the elements are swept
>>> forward. That pushes the right and left lobes from the straight
>>> elements into the center.
>>>
>>
>> Well known in the VHF and UHF design world, probably almost unknown here.
>
>
> That's too bad, since I've described that technique on this group a
> number of times in various contexts. It allows you to make a very nice
> 40/15 meter antenna, for example. Bending the wires of a 40 meter dipole
> in 30 degrees aligns the lobes on 15 meters, but doesn't alter the 40
> meter pattern much. And of course it's widely used for TV antennas,
> where the upper VHF bands are about three times the frequency of the
> lower ones.
<snip>
> Roy Lewallen, W7EL

I should have known you would have stated it already. My bad. ;)

There is also an interesting 2 meter antenna for sale on the net that
uses that method. 3 3/2 wavelength elements made as a sort of yagi as I
remember. I have no idea how well it really works.

tom
K0TAR

4165. Re: Force 12 C-3 on 6 Mtrs

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 13:42:41 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <449406d1$0$1009$39cecf19@news.twtelecom.net>
Source record: 57807

nospam@nouce.bellatlantic.net wrote:

>
>
> A simple" your wrong" or "the facts dont support" would have been far
> classier. Instead you resort to abuse.
>
> Allison

Ok, I apologize.

But if you think what I did was abuse, you haven't been reading how some other people in this group express their disagreement, LOL.

tom
K0TAR

4166. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 13:55:19 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <lJUkg.59966$qd2.26187@bignews6.bellsouth.net>
Source record: 57811

<n3ox.dan@gmail.com> wrote in message
news:1150493095.604886.118330@p79g2000cwp.googlegroups.com...
> I'm thinking about how I can make matching networks for the center of a
> 40 foot doublet for field day. I have a couple of those 20 footer
> fiberglass poles and a center mount and want to be able to match on
> 20m, 15m, and 10m for now, and there are lots of ways I could do this,
> ladderline to the base and a manual or auto tuner, autotuner at the
> feedpoint, etc, etc, but what I'd really like to do is have switchable
> fixed-tuned networks as my intent for this antenna is to be set up in
> the middle of a field in the clear at the same height all the time, and
> I want to have FAST bandswitching.
>
> An autotuner really isn't in the cards financially, and needs power.
>
> So, inductors are easy. I've got 500 feet of #10 copper wire.
>
> I need capacitors. Preferably very very cheap ones, and I guess I need
> a number of values.
>
> So it seems like 3/4" copper tubing (type L) slipped into 5/8" copper
> tubing with an air dielectric has a capacitance of 30pF per inch and a
> breakdown voltage of 1300V, ballpark in the *ideal* case.
>
> Two questions: It seems like having a small gap in a cylindrical
> capacitor like this probably makes it act like more of a lumped-element
> capacitor than, say, a length of RG-58. I guess the latter is more
> like 30pF per FOOT, and so you need to use a much longer line in terms
> of a wavelength to get the desired capacitance. Sound right to you
> folks?
>
> Second, I know the actual breakdown voltage of such an object is going
> to be much less than 30kV/cm*the gap width. Anyone using copper tubing
> caps like this (I saw a magloop "trombone" unit some years back like
> this) and what are the dimensions and actual breakdown voltages of real
> units?
>
> I guess polishing the tubes, making the cut edges rounded and so forth
> will help some, but maintaining the gap will be tough. I can easily
> derate for concentricity errors, but what about the ends? What is a
> good overlap of the two sections? Is it better to have the tubes be
> exactly the same length, flush with each other, or maybe have one
> longer than the other one so that the ends of one are far away from the
> ends of the other, or is it likely no difference? I can always go to a
> bigger gap; 0.035in diametral difference is probably pushing it for

> 100W use but I haven't yet calculated likely voltages across these
> things, so here I'll take any general comments on making coaxial caps
> that stand high voltage. I'd probably prefer air dielectric to teflon
> heat-shrink or something, I don't know how available that is.
>
> 73,
> Dan
> N3OX
>

Seems like you want something that once it is adjusted to the right capacitance it will probably never have to be tweaked again. I would go with brass plates. You can make up a nice little "brick" and then tweak it by grinding parts of it off or drilling holes in it. Sounds a little crude but really worked quite nicely for an antenna I built a long time ago. It did prove a little impractical though, Capacitance really seemed to change a bit with humidity. I never really solved this problem or even tried because I came by one of the old Heathkit antenna tuners that was a motor driven cap that you put in seies with a long wire antenna. Placing the brick in plastic box would have probably been a viable fix. Also consider that your linear caps may have quite a bit of inductance, just something else to figure into it all.

4167. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 14:02:36 UTC
From: w8ji@akorn.net
Message-ID: <1150552956.325543.198880@g10g2000cwb.googlegroups.com>
Source record: 57808

Richard Clark wrote:
> Quite true. Its as if a needle has penetrated the equipotential
> shells over that 300V span. Streamlines would probably reveal a dead
> short to what are in the distance 300V/90aA = 3,333,333 GOhm resistive
> paths.

....and when we picture this stuff correctly everything works. For an example the cubical quad antenna.

Quads almost always have long insulated spreaders with long leakage paths that allow directors and the reflector to "float". So, unlike the typical Yagi, the elements can charge to whatever potential is around them.

Everything around the floating element is around the same potential as the element. There is no corona.

The driven element has a path to ground, as most antennas do, so it is at a different potential than stuff around the element. Unlike a Yagi, the quad has the advantage of not having very sharp multiple extended protrusions into the space around its only "grounded" element.

Not only does the only quad element with a connection that keeps it at earth potential lack extended protrusions, it also does not have the highest impedance point of the element at the point where corona or leakage current is likely to form. This means the quad, unlike the Yagi, does not have a very high impedance point of the antenna protruding into space around the antenna where any very tiny leakage discharges with very low current and very high voltage are better matched to the antenna.

When we don't get all hung up on the very obvious nonsense that a closed loop is somhow magically quieter than an open element by virtue of "dc short", or fixated on an odd idea that the particles hitting the conductor are the actual instant of noise generation, everything fits.

In conditions where there is corona or the potential for corona, quads are less susceptable to noise. As a matter of fact the very reason quads were used in their initial applications was in the moist high altitude environment of HCJB, and the quad element was used to prevent errosion of the dipole elements by corona into the moist air!

When we look at this, it is almost laughable the very people claiming corona can't be the root cause of what is commonly called p-static noise are often arguing quad or quad like antenna short the noise of particles striking the antenna to ground, and thus can't have corona.

Or worse yet they argue moisture prevents corona, when the entire reason the quad was "invented" was to prevent coronal errosion of dipole elements in the moist air at HCJB.

73 Tom

4168. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 14:26:17 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <diUkg.34492$mF2.20659@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57809

Cecil Moore wrote:
> Gene Fuller wrote:
>> Cecil Moore wrote:
>> Try looking in any basic physics text. I believe you will find
>> discussion of electrostatic forces, equipotential surfaces, fields,
>> and Gauss' law. It is doubtful that you will find any technical
>> description of charge equalization.
>
> On the contrary, my DC circuits book has an example of the
> charges on two identical capacitors equalizing when they
> are paralleled.

Cecil,

My bad.

I forgot that rain drops and antenna wires are identical. The behavior
of two identical capacitors certainly covers all charge transfer phenomena.

8-)

73,
Gene
W4SZ

4169. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 14:32:33 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <5oUkg.34508$mF2.19466@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57810

Dave wrote:
>> Gene Fuller wrote:
>>
>>> Cecil Moore wrote:
>>> Try looking in any basic physics text. I believe you will find
>>> discussion of electrostatic forces, equipotential surfaces, fields,
>>> and Gauss' law. It is doubtful that you will find any technical
>>> description of charge equalization.
>>
>>
>> On the contrary, my DC circuits book has an example of the
>> charges on two identical capacitors equalizing when they
>> are paralleled.
>
> If I cause 10 coulombs of charge to be on a 10 meter long wire, do I not
> have a uniform charge distribution of 1 coulomb per meter on the wire,
> under dc steady state conditions? Isn't this required for any
> equipotential surface?
>

Dave,

No. A good conductor in DC conditions will have an equipotential surface. Charge distribution depends on the shape of the object and the external environment. The wire you describe will have higher charge density near its ends.

Electrostatic analysis would be a lot easier if what you suggested was true.

73,
Gene
W4SZ

4170. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 15:23:47 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150557827.419421.102410@y41g2000cwy.googlegroups.com>
Source record: 57812

Jimmie, I like the idea of drilling some holes to tweak the
capacitance. Good idea for a set-and-forget.... nice.

I've also used PC board caps. I don't know what the Q of those is
like; I guess it depends heavily on the dielectric... I'm sure the
duroid microwave board is much better than regular G10 or whatever.
Never really used them with power though.

There was a good tip in QST last? month about using big teflon heat
shrink tubing to make caps that were inherent parts of vertical
antennas, but I checked some prices of teflon heat shrink in large
sizes and it's not cheap.

73,
Dan

4171. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 15:47:52 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <Os2dnbPR3eoquQnZnZ2dnUVZ8s6dnZ2d@bt.com>
Source record: 57813

My previous comments about the charge on each particle of given
diameter which impinges on a grounded antenna wire appears to have put
you on the right track.

But you are now over-complicating matters. KISS.

A succession of random dis-charges constitutes a noise current induced
in an antenna wire.

Now carry on from there. You'll eventually sort it out.

Reg.

4172. Re: Question about Bode's book Ch V P 81

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 15:54:13 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bo8892hdisnnogkhnsvihtad8uq629u64h@4ax.com>
Source record: 57814

On 17 Jun 2006 02:17:43 -0700, "RR67" <raymond.ribas@gmail.com> wrote:

>This problem is solve.
>Thanks Richard for your replies and help and thanks to point out for Mr
>hwBode ...
> The answer is thanks to you now we know we are working in the same
>Compagny.
>
>Talking each other we have found the answer, my mistake was my
>interpretation of
>what Bode calls "the gain W of the tube itself"
> p69 he said "the W of equations (5-1) and (5-2) is the
>transconductance"
>I asked to myself why Bode did do it on this way
>John Pierce provide me the answer :
>On namming the transistor ....
>http://www.pbs.org/transistor/album1/pierce/index.html
>and by the way the answer
>
>To finish if you have an impedance ratio
>
>Z1/Z2 for example with Z1 and Z2 complex , the dimension of this ratio
>is defined by the modulus , and the physic tells us a ratio of (ohm /
>ohm) gives something dimensionless
>A number complex is always definied by a modulus and an argurment
>(phase).
>Another example 1/jCw for an ideal capacitor the modulus is 1/Cw and of
>course (1/Cw) are ohms
>Best regards

Hi Raymond,

Sounds like a good rationale, but you don't show a solution, just a
feel good answer. After all, you once assigned W = 0 and if that be
dimensionless or not, the product is likewise 0. You don't mention
what W = ?

As for a tube having transconductance. Yes, of course - if it is
conducting at all, and a stone cold tube does not conduct (aside from
parasitics which do not have transconductance).

To say
>of course (1/Cw) are ohms
does not satisfy your initial problem:
>> the final result for the fractionated gain has unit of ohm square.
which already acknowledged ohms to the point of too many of them!

No, your solution is found in the topology of the circuit, and the missing mesh. I see three of them, Bode saw three of them, you fellows decide to stop at two to the confusion of results. Simply put, your statements above do not describe equation 5-20.

When you guys hand in your papers at end of term, perhaps the professor will offer the solution.

73's
Richard Clark, KB7QHC

4173. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 15:59:54 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <_FVkg.98515$H71.52435@newssvr13.news.prodigy.com>
Source record: 57815

Dave wrote:
>> Gene Fuller wrote:
>>
>>> Cecil Moore wrote:
>>> Try looking in any basic physics text. I believe you will find
>>> discussion of electrostatic forces, equipotential surfaces, fields,
>>> and Gauss' law. It is doubtful that you will find any technical
>>> description of charge equalization.
>>
>>
>>
>> On the contrary, my DC circuits book has an example of the
>> charges on two identical capacitors equalizing when they
>> are paralleled.
>
>
> If I cause 10 coulombs of charge to be on a 10 meter long wire, do I not
> have a uniform charge distribution of 1 coulomb per meter on the wire,
> under dc steady state conditions? Isn't this required for any
> equipotential surface?
>

Nope.
73,
Tom Donaly, KA6RUH

4174. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 16:09:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <wOVkg.45528$fb2.16685@newssvr27.news.prodigy.net>
Source record: 57816

w8ji@akorn.net wrote:

> In conditions where there is corona or the potential for corona, quads
> are less susceptable to noise.

Quads are also less susceptible to noise from charged particles
because they tend to distribute the charge locally instead of
through the transmission line like a dipole does.

Corona is like being pregnant. It either exists or it doesn't.
Corona is steady-state ionization of the air. Arcing can occur
without corona.

> Or worse yet they argue moisture prevents corona, when the entire
> reason the quad was "invented" was to prevent coronal errosion of
> dipole elements in the moist air at HCJB.

Apples and oranges, Tom. Since nobody has argued that high
humidity prevents corona during transmitting, your statement
is just an unfair obfuscation of the facts. On a clear-sky,
high-humidity day, the high humidity prevents corona on *receiving*
antennas. The antenna at HCJB did *NOT* report any corona problems
during receive.

The antenna at HCJB had corona problems when 10 KW of
power was being supplied by the transmitter. The energy
necessary to cause the corona was coming from the
transmitter, not from the atmosphere.
--
73, Cecil http://www.qsl.net/w5dxp

4175. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 16:13:18 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ySVkg.45530$fb2.1245@newssvr27.news.prodigy.net>
Source record: 57817

Gene Fuller wrote:
> I forgot that rain drops and antenna wires are identical. The behavior
> of two identical capacitors certainly covers all charge transfer phenomena.

You apparently misunderstood what I was saying. I didn't say
the charge on the charged particle and the wire equalized. I
said, after the charge is transferred to a point on the wire
by the particle, the charge on the wire equalizes up and down
the wire.

But I am always ready to learn something new. Given two identical
conductive spheres with unequal charges, please explain the physics
that prohibits those spheres from equalizing their charges
when they are brought into physical contact.
--
73, Cecil http://www.qsl.net/w5dxp

4176. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 16:18:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <CXVkg.45535$fb2.26728@newssvr27.news.prodigy.net>
Source record: 57818

Tom Donaly wrote:
>> If I cause 10 coulombs of charge to be on a 10 meter long wire, do I
>> not have a uniform charge distribution of 1 coulomb per meter on the
>> wire, under dc steady state conditions? Isn't this required for any
>> equipotential surface?
>>
> Nope.

But that wasn't the correct question. Given two identical dipole
elements connected by a link coupling, does the charge on each
element equalize with the other?
--
73, Cecil http://www.qsl.net/w5dxp

4177. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 16:21:30 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <e_Vkg.45536$fb2.38945@newssvr27.news.prodigy.net>
Source record: 57819

Cecil Moore wrote:
> Gene Fuller wrote:
>> I forgot that rain drops and antenna wires are identical. The behavior
>> of two identical capacitors certainly covers all charge transfer
>> phenomena.
>
> You apparently misunderstood what I was saying. I didn't say
> the charge on the charged particle and the wire equalized. I
> said, after the charge is transferred to a point on the wire
> by the particle, the charge on the wire equalizes up and down
> the wire.

I'm sorry, not up and down the single elementary wire, but
between the two identical elements of a link-coupled dipole.

> But I am always ready to learn something new. Given two identical
> conductive spheres with unequal charges, please explain the physics
> that prohibits those spheres from equalizing their charges
> when they are brought into physical contact.
--
73, Cecil http://www.qsl.net/w5dxp

4178. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 16:30:22 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <y6Wkg.45541$fb2.17531@newssvr27.news.prodigy.net>
Source record: 57820

Gene Fuller wrote:
> I forgot that rain drops and antenna wires are identical. The behavior
> of two identical capacitors certainly covers all charge transfer phenomena.

I didn't say what I wanted to say in my last reply to this
posting so I canceled my first reply and am substituting
this one for it. It the older reply made it off my server,
please ignore it.

You obviously misunderstood what I said. I didn't say the charge
equalized between the charged particle and the wire. What I said
is after the charge is deposited on the wire and the particle
that did the depositing of the charge is long gone, the charge
deposited by that particle will equalize between two identical
dipole elements that are link coupled.

Let's say we have a perfectly symmetrical link-coupled dipole
and we deposit one coulomb on one element. Please explain the
laws of physics that prohibit those two dipole elements from
equalizing at the same charge.
--
73, Cecil http://www.qsl.net/w5dxp

4179. Circular vs. Linear and Dipole vs. Loop. Thoughts?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 18:33:49 UTC
From: NathanielColson@gmail.com
Message-ID: <1150569229.622462.314370@h76g2000cwa.googlegroups.com>
Source record: 57821

Ok, I have a question for an antenna expert. I'm a UCF student designing a UHF RFID system for a new kind of robot positioning system, and I have two choices to make:

1. Circular vs. Linear polarized antenna for the RFID reader
2. Halfwave dipole vs. Fullwave loop antenna for the tags

The reader antenna transmits a signal that electrically couples the tag antenna, inducing a current that the tag uses to transmit its ID number back to the reader. It's a long range application, so it's important that I maximize the power transfer to the tag. Here's my current understanding of the matter, let me know if I'm wrong:

A L-pol reader antenna with a dipole tag antenna will get great power transfer, but there will be lots of null zones if the tag is oriented improperly.

A C-pol reader antenna with a dipole tag antenna will get great orientation indifference, but power transfer to the tag will suffer.

A L-pol reader antenna with a loop tag antenna will also get great orientation indifference, but sub-optimal power transfer.

A C-pol reader antenna with a loop tag antenna will get both great orientation indifference and maximum power transfer.

So I believe I want to do the last one, but I wanted to get some input from people with antenna experience, in case I have no idea what I'm doing, which is entirely plausible.
Thanks!
Nathaniel

4180. Re: Circular vs. Linear and Dipole vs. Loop. Thoughts?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 18:41:12 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <8si8925hn9mvg438p68r5iaabkrb37khv4@4ax.com>
Source record: 57822

On 17 Jun 2006 11:33:49 -0700, NathanielColson@gmail.com wrote:

>Ok, I have a question for an antenna expert. I'm a UCF student
>designing a UHF RFID system for a new kind of robot positioning system,
>and I have two choices to make:
>
>1. Circular vs. Linear polarized antenna for the RFID reader
>2. Halfwave dipole vs. Fullwave loop antenna for the tags

Hi Nathaniel,

Both Loops and Dipoles are dipoles. This is not about geometry so
much as it is about phase driving two separate, but close antennas.

I doubt it any RFID tags are polarized, but I could be wrong. If so,
then you will need a more complex antenna for the reader. Either way,
you should check with the vendor of the tags. They have every
motivation to make sure you know antenna requirements.

73's
Richard Clark, KB7QHC

4181. Re: Circular vs. Linear and Dipole vs. Loop. Thoughts?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 19:16:09 UTC
From: Christen Fihl <mail.address.on.my.web.site@nospam.plz>
Message-ID: <449454f9$0$102$edfadb0f@dread16.news.tele.dk>
Source record: 57823

I read this paper myself:
http://www.ti.com/rfid/docs/manuals/appNotes/HFAntennaCookbook.pdf

--
Christen Fihl
http://oz1aab.Fihl.net/

4182. Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 19:32:00 UTC
From: Howard W3CQH <hgorden@adelphia.net>
Message-ID: <DvmdnX0ALIEzxQnZnZ2dnUVZ_rmdnZ2d@adelphia.com>
Source record: 57824

Looking for specs on any log periodic antenna that covers 50Mhz - 1300Mhz, (Ham variety). Specs must also contain that it can withstand 80MPH wind and 30 Lbs of ICE?

Thanks and best DXin.

de Howard W3CQH

4183. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 20:24:50 UTC
From: kb9rqz_child_molester@yahoo.com
Message-ID: <1150575890.532370.40940@f6g2000cwb.googlegroups.com>
Source record: 57825
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

```
an old friend wrote:
> markie_morgan_rapesboys@yahoo.com wrote:
> > Got AIDS from an old friend wrote:
> > > markie_morgan_rapesboys@yahoo.com wrote:
> > > > assraped by an old freind wrote:
> > > > > billy_shittydrawers_smith@yahoo.com wrote:
> > > \
> > > > > get
> > > >
> > > > Don't get help for your AIDS, just die from it.
> > > no AIDS here
> >
> > Liar.
> no aids here

Liar.

> >
> > > but you are one sick bastard
> >
> > You are the one who has sex with other men, animals and little boys.
> get help you sack of shit

What's the matter, you perverted deviant? Truth hurt?

> even my emenies reconizes I am better than your filthy sick mind wismen

No, they recognize that you are one illiterate asshole.
```

4184. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 20:50:04 UTC
From: Bob <warthog9@pacbell.net>
Message-ID: <0WZkg.46046$fb2.1205@newssvr27.news.prodigy.net>
Source record: 57676

The KMA log antennas seem more durable than Create or Tennadyne but not
sure about 80mph wind + ice. They can make you one from thicker
materials that would probably survive.
Bob

Howard W3CQH wrote:
> Looking for specs on any log periodic antenna that covers 50Mhz - 1300Mhz,
> (Ham variety). Specs must also contain that it can withstand 80MPH wind and
> 30 Lbs of ICE?
>
> Thanks and best DXin.
>
> de Howard W3CQH
>
>
>

4185. Re: Ham Survey: How many Appliance Operator classes do we need after code goes away?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 21:46:13 UTC
From: Zombie Wolf <zmbwf@gwi.net>
Message-ID: <e8OdncHhbMC85QnZnZ2dnUVZ_uWdnZ2d@giganews.com>
Source record: 57677
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.scanner,rec.radio.swap

oooooh yeah, Barry O'Fuss-ass - those top posters ! they should be drawn
and quartered.

"Barry OGrady" <god_free_jones@yahoo.com> wrote in message
news:feq692hr24bjlm9gn3mksgo3jsba3t7qe9@4ax.com...
> On Fri, 16 Jun 2006 22:34:04 GMT, "Woody" <woody.shadetree@verizon.net>
> wrote:
>
>>Good God people... is everyone a bus driver or teacher??? [then again, the
>>mentality is that of students] What is with this troll-o-rama since school
>>ended????
>>Shouldn't you people be in Myrtle/Virginia beach or something??
>>sheesh.
>
> They certainly should not be top posting!
>
>>rb
>>
>>
>>"Skip Land" <my.mail@skip.land> wrote in message
>>news:sgGkg.6851$lp.887@newsread3.news.pas.earthlink.net...
>>> We have three classes now, Should we increase or decrease?
>>>
>>>
>>> I'm thinking we can reduce the number to two license classes:
>>>
>>> One class for VHF/UHF so those people can screw up the repeaters, and
>>> one
>>> with a little harder test that adds HF privileges, for those that want
>>> to
>>> screw things up world wide.
>>>
>>> SL
>>
>
> Barry
> =====
> Home page
> http://members.iinet.net.au/~barry.og

4186. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 22:03:53 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1150581833.306643.237700@p79g2000cwp.googlegroups.com>
Source record: 57678
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

kb9rqz_child_molester@yahoo.com wrote:
> an old friend wrote:
> > markie_morgan_rapesboys@yahoo.com wrote:
no AIDS here
> > >
> > > Liar.
> > no aids here
>
> Liar.
get help for your delsuions

4187. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 22:12:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <S6%kg.99273$H71.8068@newssvr13.news.prodigy.com>
Source record: 57679

w8ji@akorn.net wrote:
> When we look at this, it is almost laughable the very people claiming
> corona can't be the root cause of what is commonly called p-static
> noise are often arguing quad or quad like antenna short the noise of
> particles striking the antenna to ground, and thus can't have corona.

W8JI: Tibet doesn't exist.

W5DXP: Please prove it.

W8JI: I have seen China but I have never seen Tibet.

Substitute "corona" for China and "charged particle
noise" for Tibet and you will completely understand
W8JI's argument.
--
73, Cecil http://www.qsl.net/w5dxp

4188. Re: Ham Survey: How many Appliance Operator classes do we need after code goes away?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 22:39:01 UTC
From: Win <w0lz@winlyn.us>
Message-ID: <9c0992hfeoplrae287q3m7gj53f0q8vt6l@4ax.com>
Source record: 57680

For the sake of the troll... Back in the early 90s there may have been some etiiqutte on the net, but not today. Top posting is perfectly acceptable today. The first line is about all anyone reads of this kind of crap, anyway.

And, these want-to be nurds that think they are hackers because they can read a header are also full of crap. I suspect I was writing code befoer many were born. Most could not hack me if I gave them my password.

Give me a break.

Win, w0lz

4189. one

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-17 22:47:11 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150584431.037666.110530@r2g2000cwb.googlegroups.com>
Source record: 57681

Win wrote:
> For the sake of the troll... Back in the early 90s there may have
> been some etiiqutte on the net, but not today. Top posting is
> perfectly acceptable today. The first line is about all anyone reads
> of this kind of crap, anyway.
indeed in manay does any past the title

4190. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 04:31:54 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <1299lnlqg1nng48@corp.supernews.com>
Source record: 57683

Dear Howard W3CQH:

A 26:1 frequency range is difficult to do well. Might you intend 500 MHz to 1300 MHz? A 2.6:1 LPDA is reasonably straight forward with design information in the ARRL Antenna Handbook (including mechanical information).

Use care when specifying survival of an antenna in terms of MPH. It is the equivalent Newtons per square meter (pounds-force per square foot) that is important. Several ways of describing wind speed exist and are not equal in terms of what they do to an antenna structure. Ask for pressure information.

I do not recognize the "30 Lb of ICE" specification. Most often, ice loading is specified in terms of size such as 12 mm of ice all of the way around each element (12 mm of radial ice).

It will help to know the task to be performed by the antenna. Tell us more.

Regards, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Howard W3CQH" <hgorden@adelphia.net> wrote in message
news:DvmdnX0ALIEzxQnZnZ2dnUVZ_rmdnZ2d@adelphia.com...
> Looking for specs on any log periodic antenna that covers 50Mhz - 1300Mhz,
> (Ham variety). Specs must also contain that it can withstand 80MPH wind
and
> 30 Lbs of ICE?
>
> Thanks and best DXin.
>
> de Howard W3CQH
>
>
>

4191. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 04:32:18 UTC
From: w8ji@akorn.net
Message-ID: <1150605138.230626.17070@p79g2000cwp.googlegroups.com>
Source record: 57684

Cecil Moore wrote:
> Apples and oranges, Tom. Since nobody has argued that high
> humidity prevents corona during transmitting, your statement
> is just an unfair obfuscation of the facts. On a clear-sky,
> high-humidity day, the high humidity prevents corona on *receiving*
> antennas. The antenna at HCJB did *NOT* report any corona problems
> during receive.

Typical of Cecil Moore. Do you think you are the center of attention
and no one else is worth talking to? I wasn't even talking to you!

Look back Cecil. K0TAR said there couldn't be corona in the rain.
That's incorrect.

Speak when spoken to Cecil.

73 Tom

4192. Feedline impedance query

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 04:34:19 UTC
From: David & Margaret McBeth <damarg@ihug.co.nz>
Message-ID: <e72kre$f61$1@lust.ihug.co.nz>
Source record: 57682

If I join 2 lengths of 93 ohm coax to give 46.5 ohm impedance will the db
loss on the line be greater,less or the same as a single lengthof the coax?
ZL2DG

4193. Re: Circular vs. Linear and Dipole vs. Loop. Thoughts?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 04:43:40 UTC
From: NathanielColson@gmail.com
Message-ID: <1150605820.308827.52650@r2g2000cwb.googlegroups.com>
Source record: 57685

Thanks for your help Richard.
I think you're right about the tag antennas not being polarized, but I
know the big antenna mounted on the reader can be. These are the one's
I'm considering:
http://rfidusa.com/superstore/index.php?cPath=105_109&osCsid=1e9c0e08f34b4d260a95d20420be597e

Richard Clark wrote:
> On 17 Jun 2006 11:33:49 -0700, NathanielColson@gmail.com wrote:
>
> >Ok, I have a question for an antenna expert. I'm a UCF student
> >designing a UHF RFID system for a new kind of robot positioning system,
> >and I have two choices to make:
> >
> >1. Circular vs. Linear polarized antenna for the RFID reader
> >2. Halfwave dipole vs. Fullwave loop antenna for the tags
>
> Hi Nathaniel,
>
> Both Loops and Dipoles are dipoles. This is not about geometry so
> much as it is about phase driving two separate, but close antennas.
>
> I doubt it any RFID tags are polarized, but I could be wrong. If so,
> then you will need a more complex antenna for the reader. Either way,
> you should check with the vendor of the tags. They have every
> motivation to make sure you know antenna requirements.
>
> 73's
> Richard Clark, KB7QHC

4194. Re: Circular vs. Linear and Dipole vs. Loop. Thoughts?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 05:07:27 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <bln992ti7479i4ir4kkcgm9rn98i5l8dgg@4ax.com>
Source record: 57687

On 17 Jun 2006 21:43:40 -0700, NathanielColson@gmail.com wrote:

>Thanks for your help Richard.
>I think you're right about the tag antennas not being polarized, but I
>know the big antenna mounted on the reader can be. These are the one's
>I'm considering:
>http://rfidusa.com/superstore/index.php?cPath=105_109&osCsid=1e9c0e08f34b4d260a95d20420be597e

Hi Nathaniel,

Just build two dipole antennas and try one first. One may do the
trick. The circular polarized (or more likely cross-polarized)
antennas are mostly to anticipate a random orientation of the tag. If
you can put all the tags in the same orientation, you only need one
(the favored) polarization. Figuring out which is relatively trivial.
If you need circular/cross polarized, it isn't much more getting there
than cabling.

73's
Richard Clark, KB7QHC

4195. Re: Feedline impedance query

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 05:10:58 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <6fn99219pobjiufndo7mskdatlcr68gcho@4ax.com>
Source record: 57686

On Sun, 18 Jun 2006 16:34:19 +1200, "David & Margaret McBeth"
<damarg@ihug.co.nz> wrote:

>If I join 2 lengths of 93 ohm coax to give 46.5 ohm impedance will the db
>loss on the line be greater,less or the same as a single lengthof the coax?
> ZL2DG
>

Presumably by "join 2 lengths" you mean to connect two lengths in
parallel.

If the loss factor L is the loss in one length of the cable, won't the
loss in two parallel lengths be Plost=Pin/2*L+Pin/2*L, so Plost/Pin=L?

Owen
--

4196. Re: Feedline impedance query

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 05:16:58 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <o5o992p7eaig28d9i8cumpkdjnd8jnuprf@4ax.com>
Source record: 57688

On Sun, 18 Jun 2006 05:10:58 GMT, Owen Duffy <owen@no.where> wrote:

>On Sun, 18 Jun 2006 16:34:19 +1200, "David & Margaret McBeth"
><damarg@ihug.co.nz> wrote:
>
>>If I join 2 lengths of 93 ohm coax to give 46.5 ohm impedance will the db
>>loss on the line be greater,less or the same as a single lengthof the coax?
>> ZL2DG
>>
>
>Presumably by "join 2 lengths" you mean to connect two lengths in
>parallel.
>
>If the loss factor L is the loss in one length of the cable, won't the
>loss in two parallel lengths be Plost=Pin/2*L+Pin/2*L, so Plost/Pin=L?

Hi Owen,

Hmm, each time I look at these equations, something is missing, but I
don't know what (probably because it is missing).

Simply put, two lines in parallel lose as much power as one line.
Nothing to be gained in that regard.

73's
Richard Clark, KB7QHC

4197. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 05:27:57 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <rrn9929omlehggpe6r5pqbl30pflqu079h@4ax.com>
Source record: 57689

On Sun, 18 Jun 2006 00:31:54 -0400, "J. Mc Laughlin"
<jcm@power-net.net> wrote:

> I do not recognize the "30 Lb of ICE" specification. Most often, ice
>loading is specified in terms of size such as 12 mm of ice all of the way
>around each element (12 mm of radial ice).

Given the looseness of use of the unit lb to specify mass and
(incorrectly) force, it is a bit ambiguous... but he probably means
mass. 30lbf of windage from ice loading isn't much on an antenna of
that type!

(We sin in the metric system as well! If someone asks me what I weigh
(being a force) I will answer in Kg (being a mass) instead of N
(force).)

Having said that, the impact of ice on the wind forces is probably
much more significant than the gravitational force due to the mass of
the ice.

Mac, I agree, radial ice loading is a more relevant specification.

Owen
--

4198. Re: Feedline impedance query

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 05:33:00 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <5ro992d0mr8lju37jos9cn674uv2dtvtv8@4ax.com>
Source record: 57690

On Sat, 17 Jun 2006 22:16:58 -0700, Richard Clark <kb7qhc@comcast.net>
wrote:

>>If the loss factor L is the loss in one length of the cable, won't the
>>loss in two parallel lengths be Plost=Pin/2*L+Pin/2*L, so Plost/Pin=L?
>
>
>Hi Owen,
>
>Hmm, each time I look at these equations, something is missing, but I
>don't know what (probably because it is missing).

Devilishly clever technique that. I can't really help, I didn't see it
even after I pressed the send button!

>
>Simply put, two lines in parallel lose as much power as one line.

Of course, we both assumed the lines operates with VSWR=1.

>Nothing to be gained in that regard.

Pardon the pun!

Owen
--

4199. Re: Feedline impedance query

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 05:35:59 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <u9p992ll79rjpda71b36gmimar14npega7@4ax.com>
Source record: 57691

On Sun, 18 Jun 2006 05:33:00 GMT, Owen Duffy <owen@no.where> wrote:

>>Simply put, two lines in parallel lose as much power as one line.
>
>Of course, we both assumed the lines operates with VSWR=1.

Hi Owen,

You assumed twice. SWR will only mean more loss - the same loss for
one or two lines either way.

73's
Richard Clark, KB7QHC

4200. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 05:41:35 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <jl5lg.179246$bm6.6953@fed1read04>
Source record: 57692

"Howard W3CQH" <hgorden@adelphia.net> wrote in message
news:DvmdnX0ALIEzxQnZnZ2dnUVZ_rmdnZ2d@adelphia.com...
> Looking for specs on any log periodic antenna that covers 50Mhz - 1300Mhz,
> (Ham variety). Specs must also contain that it can withstand 80MPH wind
and
> 30 Lbs of ICE?
>
> Thanks and best DXin.
>
> de Howard W3CQH
>
>
>
http://www.eham.net/reviews/detail/1700 for starters

4201. Sky noise temperature - 2m, 70cm, 23cm

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 08:10:49 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <2q1a92pkre7o2kc0cechlks7pmh7rlacdn@4ax.com>
Source record: 57693

Googling about turns up a little, and only a little information on the expected sky noise temperature on 2m, 70cm, 23cm.

The information isn't very consistent. For example, articles that talk about the sky noise below 200MHz being 100K or more, and amateur articles talking about sky noise at 144MHz being "hundreds of degrees".

Similary, for 70cm a broad brush figure of 45K seems to be used, and others talk about 20K away from the galactic plane and 60K on the galactic plane. (Yes, they will be blurred together with a low gain antenna.)

Some discussions treat the "sky noise temperature" as if it includes spillover noise (eg in cold sky / hot earth measurements).

Can anyone recommend a reliable source of sky noise characteristics for these bands.

Additionally, I am interested in the range of ambient noise levels experienced for these bands for traditional DX activity (ie antennas at zero elevation.

Alternatively, are satellite beacons a reliable source for measuring station receive performance?

Or... is there some other better way of measuring station receive performance?

Owen
--

4202. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 12:10:56 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4495430a$0$16233$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57694

"Owen Duffy" <owen@no.where> wrote in message
news:rrn9929omlehggpe6r5pqbl30pflqu079h@4ax.com...
> On Sun, 18 Jun 2006 00:31:54 -0400, "J. Mc Laughlin"
> <jcm@power-net.net> wrote:
>
>
> > I do not recognize the "30 Lb of ICE" specification. Most often, ice
> >loading is specified in terms of size such as 12 mm of ice all of the way
> >around each element (12 mm of radial ice).
>
> Given the looseness of use of the unit lb to specify mass and
> (incorrectly) force, it is a bit ambiguous... but he probably means
> mass.

lbs is always force as far as i know. slugs is mass.

so long as we are confined to the planet earth, there is no difference
really. 1 kg (mass) always weighs 2.2 lbs (force). obviously if you go to
the moon ...

kilogram, slug -- mass
newton, pound -- force

Gravity

30lbf of windage from ice loading isn't much on an antenna of
> that type!
>
> (We sin in the metric system as well! If someone asks me what I weigh
> (being a force) I will answer in Kg (being a mass) instead of N
> (force).)
>
> Having said that, the impact of ice on the wind forces is probably
> much more significant than the gravitational force due to the mass of
> the ice.
>
> Mac, I agree, radial ice loading is a more relevant specification.
>
> Owen
> --

4203. Re: Sky noise temperature - 2m, 70cm, 23cm

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 12:38:55 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <zPblg.2284$Td6.438@trnddc08>
Source record: 57695

"Owen Duffy" <owen@no.where> wrote in message
news:2q1a92pkre7o2kc0cechlks7pmh7rlacdn@4ax.com...
>
> Googling about turns up a little, and only a little information on the
> expected sky noise temperature on 2m, 70cm, 23cm.
>
> The information isn't very consistent. For example, articles that talk
> about the sky noise below 200MHz being 100K or more, and amateur
> articles talking about sky noise at 144MHz being "hundreds of
> degrees".
>
> Similary, for 70cm a broad brush figure of 45K seems to be used, and
> others talk about 20K away from the galactic plane and 60K on the
> galactic plane. (Yes, they will be blurred together with a low gain
> antenna.)
>
> Some discussions treat the "sky noise temperature" as if it includes
> spillover noise (eg in cold sky / hot earth measurements).
>
> Can anyone recommend a reliable source of sky noise characteristics
> for these bands.
>
> Additionally, I am interested in the range of ambient noise levels
> experienced for these bands for traditional DX activity (ie antennas
> at zero elevation.
>
> Alternatively, are satellite beacons a reliable source for measuring
> station receive performance?
>
> Or... is there some other better way of measuring station receive
> performance?
>
> Owen
> --

Hi Owen,

I seem to recall around 30K-40K for cold sky.

At 432 and above, everyone I know is using sun noise to evaluate system
performance. Have a look at K5SO's site:
http://www.k5so.com/Sun_noise.html

Most of us on 1296 EME use a GR1236 IF meter for sun measurements. Easily
resolves 0.1dB.

73,

Dale W4OP

4204. Re: Sky noise temperature - 2m, 70cm, 23cm

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 13:11:01 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <449550e6$0$1009$39cecf19@news.twtelecom.net>
Source record: 57696

Owen Duffy wrote:

>
> Or... is there some other better way of measuring station receive
> performance?
>
> Owen
> --

Several of the EME software programs, such as TRACKER for MS machines, or Palmtrack for Palm OS, will give the noise temperature at several frequencies. Google for "EME tracking scheduling".

You could also get help from one of the 2 EME nets on 20m. They run from approximately 1000 through 1230 Eastern time on 14345. If you can't check in, you can listen to the net on the first link at http://taring.org using WMP or any other mp3 streamer, and you can email your question to Joe, K1RQG_ _@_ _aol.com (remove the clutter to use) and he will likely get the net to respond with lots of information for you. Checking there would get you the best answers on sky noise.

Alternatively, the sun is easy to find, and the numbers are published daily for at least 2 frequencies. The problem is extrapolating those numbers to as low as 2 meters. Discussions recently say the best known, most used, equation probably is not correct, even at 1296, and will be even less accurate at 432, let alone 2 meters. There was a corrected one suggested, but I would take any of them as untrustworthy at this time. Again, the EME net may be of help, as many net participants take regular, even daily, sun noise measurements at 1296. They can also give you tips on avoiding errors and calibrating.

tom
K0TAR

4205. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 13:16:15 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44955220$0$1008$39cecf19@news.twtelecom.net>
Source record: 57697

w8ji@akorn.net wrote:

> Typical of Cecil Moore. Do you think you are the center of attention
> and no one else is worth talking to? I wasn't even talking to you!
>
> Look back Cecil. K0TAR said there couldn't be corona in the rain.
> That's incorrect.
>
> Speak when spoken to Cecil.
>
> 73 Tom
>

Hang on, I didn't say "couldn't", I said I doubted it, and I also said I was asking a question. And you and others have given lots of information since, thank you.

I not convinced that corona is what I'm hearing, but I'm no longer convinced it's not, either.

tom
K0TAR

4206. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 13:36:16 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <BFclg.13$PG4.11@fe12.lga>
Source record: 57698

<w8ji@akorn.net> wrote >
> Typical of Cecil Moore. Do you think you are the center of attention
> and no one else is worth talking to? I wasn't even talking to you!
>
> Look back Cecil. K0TAR said there couldn't be corona in the rain.
> That's incorrect.
>
> Speak when spoken to Cecil.
>
> 73 Tom
>

Ooooops!
Condx is worsening. Now besides being scientwist's guru, purporting to be
the Hitler of free speech.
Cecil, can you voluntarily relinquish your center of attention title to the
Allknowing One, please, in the name of preserving salinity of the Internet?
Shades of Freaktenna. :-)

Happy Father's Day to all brave fathers!

Yuri da BUm
not from Tibet, but lived in Zemplin
(free dB to anyone identifying the prefix)

4207. Re: Feedline impedance query

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 13:48:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <5Rclg.119011$dW3.87849@newssvr21.news.prodigy.com>
Source record: 57699

David & Margaret McBeth wrote:
> If I join 2 lengths of 93 ohm coax to give 46.5 ohm impedance will the db
> loss on the line be greater,less or the same as a single lengthof the coax?

You have not supplied enough information. What is the
load impedance in each case?
--
73, Cecil http://www.qsl.net/w5dxp

4208. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 13:49:01 UTC
From: w8ji@akorn.net
Message-ID: <1150638540.988006.226840@h76g2000cwa.googlegroups.com>
Source record: 57700

Tom Ring wrote:

> I not convinced that corona is what I'm hearing, but I'm no longer
> convinced it's not, either.

That's good. You shouldn't be convinced. Especially if it is something just accepted and circulated without experimental results confirming it.

There are a lot of odd ideas that are deeply rooted, especially when it comes to electric fields, noise, and charges.

Look at the shielded loop thread that just went on! Someone started a whole thread just to show the shield blocked electric fields and "noise", when all the shield really does is help balance the antenna and eleimnate common mode responses.

The "dc path eliminates noise" and the "noise comes from each particle hitting the antenna and a dc path reduces it" are nearly as far fetched.

The potential difference is between the earth and space above the earth. Clouds can also become "charged" and have a large potential difference to earth and anything connected to earth, especially in bad weather. That's why the world has lightning hits!

Anything connected to earth and sticking up and out in the air will have a huge potential difference between it and anything in the space around it at the same height or higher.

The sharper, higher, and more extended the conductive protrusions are the worse the problem is, and the best ground connection in the world won't reduce it (it can actually only make it worse). Rain or snow or dust won't make the problem less either. Neither will high humidity.

I spent a lot of time and money trying to fix what I thought was the problem (the particles making noise) until I learned the folklore was wrong.

73 Tom

4209. Re: Feedline impedance query

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 13:50:58 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <6Tclg.119013$dW3.79518@newssvr21.news.prodigy.com>
Source record: 57701

Richard Clark wrote:
> Simply put, two lines in parallel lose as much power as one line.
> Nothing to be gained in that regard.

Doesn't it depend on the value of the load impedance,
i.e. upon the SWR?
--
73, Cecil http://www.qsl.net/w5dxp

4210. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 14:10:02 UTC
From: w8ji@akorn.net
Message-ID: <1150639802.286568.197520@y41g2000cwy.googlegroups.com>
Source record: 57702

Yuri Blanarovich wrote:

> Ooooops!
> Condx is worsening. Now besides being scientwist's guru, purporting to be
> the Hitler of free speech.
> Cecil, can you voluntarily relinquish your center of attention title to the
> Allknowing One, please, in the name of preserving salinity of the Internet?
> Shades of Freaktenna. :-)
>
> Happy Father's Day to all brave fathers!
>
> Yuri da BUm
> not from Tibet, but lived in Zemplin
> (free dB to anyone identifying the prefix)

....and as Dr. Phil would say, "How's that shielded loop thread doing
Yuri? Is it working for you?"

4211. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 14:16:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <%edlg.119020$dW3.50901@newssvr21.news.prodigy.com>
Source record: 57703

Yuri Blanarovich wrote:
> <w8ji@akorn.net> wrote >
>> Look back Cecil. K0TAR said there couldn't be corona in the rain.

>> K0TAR replied:
>>> Hang on, I didn't say "couldn't", ...

>> Speak when spoken to Cecil.

God has obviously died and left W8JI in charge of r.r.a.a. :-)

> Cecil, can you voluntarily relinquish your center of attention title to the
> Allknowing One, please, in the name of preserving salinity of the Internet?

Just as soon as He lives up to His omniscient self-image. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4212. Re: 900MHz Cable Feeds

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 14:20:09 UTC
From: paul@burridge8333.fsbusiness.co.uk
Message-ID: <1150640409.654514.293650@c74g2000cwc.googlegroups.com>
Source record: 57704
Cross-posted to: sci.electronics.design,rec.radio.amateur.misc,rec.radio.amateur.antenna

Joe G (Home) wrote:
> Hi All,
>
> I have a 900MHz radio system and I want extend 50ohm coax cable from 3m to
> 20metres.
> (well.... I mean - replace the 3m with a complete 20metre section with
> proper termination coax connectors etc)
>
> What losses and reflections should I watch out for?

The obvious question is: how much loss can you *stand* in this
application?
(X-posted to more appropriate groups)

4213. Re: Feedline impedance query

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 14:47:14 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <L4OdnUu0OIaZ9QjZRVnyhw@bt.com>
Source record: 57705

It is perfectly obvious, at DC and low frequencies, the resistances of the two inner conductors are in parallel with each other. So with a fixed voltage at one end there will be a greater power dissipated in a load resistance at the receiving end.

Outer conductor resistance has a secondary effect.

By connecting two cables in parallel the resulting attenuation will be smaller. But as Cecil implies, for exact calculations, cable impedance, cable length, generator and load resistances, and SWR enter the argument.

In general, it is a complete waste of time, trouble and cost to connect coaxial cables in parallel merely to obtain a different Zo impedance.

If a reduction in line loss is the objective, then the most economic and effective procedure is to use thicker wires in the transmission line and let line impedance look after itself.

Reg. G4FGQ

4214. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 14:55:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <HPdlg.52806$Lm5.45586@newssvr12.news.prodigy.com>
Source record: 57706

w8ji@akorn.net wrote:
> The "dc path eliminates noise" and the "noise comes from each particle
> hitting the antenna and a dc path reduces it" are nearly as far
> fetched.

I already explained that to you, Tom. Perhaps you missed it.
In the following diagrams, CH is the charge transferred to
the antenna by a charged particle or any other means.

Given a non-folded dipole, any equalizing of the charge between
the two identical dipole elements must flow through the link
where the noise is picked up by the receiver.

```
-------CH------+ +---------------
| |
/ /
| |
Link to
receiver
```

Turning the non-folded dipole into a folded dipole provides
a *local DC path* between the two elements. Most of the
noise will follow that DC path between elements instead of
traveling down the transmission line, through the link, and
back up the transmission line. Hint: Ohm's law.

```
DC path between elements
+------------------------------+
+-------CH-----+ +--------------+
| |
/ /
| |
Link to
Receiver
```

You avoided replying to this last time. One wonders why.
Please explain why you think the charge on the folded dipole
would not take the DC path of least resistance.
--
73, Cecil http://www.qsl.net/w5dxp

4215. Re: Feedline impedance query

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 14:59:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <6Tdlg.52807$Lm5.35687@newssvr12.news.prodigy.com>
Source record: 57707

Reg Edwards wrote:
> In general, it is a complete waste of time, trouble and cost to
> connect coaxial cables in parallel merely to obtain a different Zo
> impedance.

Sounds like someone might have some free 93 ohm coax
and be wanting to use it on a dipole.
--
73, Cecil http://www.qsl.net/w5dxp

4216. Re: 900MHz Cable Feeds

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 15:00:01 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44956aac$0$16468$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57708
Cross-posted to: sci.electronics.design,rec.radio.amateur.misc,rec.radio.amateur.antenna

<paul@burridge8333.fsbusiness.co.uk> wrote in message
news:1150640409.654514.293650@c74g2000cwc.googlegroups.com...
>
> Joe G (Home) wrote:
> > Hi All,
> >
> > I have a 900MHz radio system and I want extend 50ohm coax cable from 3m
to
> > 20metres.
> > (well.... I mean - replace the 3m with a complete 20metre section with
> > proper termination coax connectors etc)
> >
> > What losses and reflections should I watch out for?
>
> The obvious question is: how much loss can you *stand* in this
> application?
> (X-posted to more appropriate groups)
>

hardline might work. quite expensive.

i'm not sure what the losses from the connectors would be in a hardline
system.

Gravity

4217. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 15:06:49 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <129aqu53nq02r27@corp.supernews.com>
Source record: 57709

Dear Owen:
As you, and others, have concluded from my descriptions, I too have mass and force in separate bins.
I continue to be amazed at the facility with which MEs use "pounds" to indicate just what they want it to indicate. Every time that I do a mechanical design (or check a mechanical design), I convert to SI units with a careful check accompanying the conversion of whether I have converted forces or masses. Once in SI, everything is easy.

I have had discussions with some of my fellow P.E.s of the ME persuasion about this: they contend that they always know when force and mass is involved. I remain unconvinced.

A mass centered system (SI) is more straight forward than a force centered system where an assumed gravitational field is used.

Here in the North, ice plus a moderate amount of wind is most often what kills antennas having cantilevered elements.

Thanks for your comments.

73 Mac N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Owen Duffy" <owen@no.where> wrote in message
news:rrn9929omlehggpe6r5pqbl30pflqu079h@4ax.com...
> On Sun, 18 Jun 2006 00:31:54 -0400, "J. Mc Laughlin"
> <jcm@power-net.net> wrote:
>
>
> > I do not recognize the "30 Lb of ICE" specification. Most often, ice
> >loading is specified in terms of size such as 12 mm of ice all of the way
> >around each element (12 mm of radial ice).
>
> Given the looseness of use of the unit lb to specify mass and
> (incorrectly) force, it is a bit ambiguous... but he probably means
> mass. 30lbf of windage from ice loading isn't much on an antenna of
> that type!
>
> (We sin in the metric system as well! If someone asks me what I weigh
> (being a force) I will answer in Kg (being a mass) instead of N
> (force).)
>
> Having said that, the impact of ice on the wind forces is probably
> much more significant than the gravitational force due to the mass of

> the ice.
>
> Mac, I agree, radial ice loading is a more relevant specification.
>
> Owen
> --

4218. Re: Sky noise temperature - 2m, 70cm, 23cm

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 15:25:39 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44957073$0$1006$39cecf19@news.twtelecom.net>
Source record: 57710

Tom Ring wrote:

> Owen Duffy wrote:
>
>>
>> Or... is there some other better way of measuring station receive
>> performance?
>>
>> Owen
>> --
>
>
> Several of the EME software programs, such as TRACKER for MS machines,
> or Palmtrack for Palm OS, will give the noise temperature at several
> frequencies. Google for "EME tracking scheduling".
>
> You could also get help from one of the 2 EME nets on 20m. They run
> from approximately 1000 through 1230 Eastern time on 14345. If you

Oops, forgot to add - on Saturday and Sunday.

tom
K0TAR

4219. Looking for simple antenna solution

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 16:05:29 UTC
From: "Bob D." <bobmgtd@insightbb.com>
Message-ID: <2JSdnUf_F_Id5AjZnZ2dnUVZ_t-dnZ2d@insightbb.com>
Source record: 57711

After years off the air, I'm ready to get back on. I want to keep it simple though. I picked up a 6m/2m/440 Yaesu VX-7 HT at Dayton and I plan to use it for both base and mobile. I want an antenna that covers these 3 bands that I can mount off the side of my 80 ft. tower. (Off the side, because there is no way I can climb to the top anymore!) I'm not concerned with the gain, I just want something better than the rubber duck. Any product and mounting recommendations?

--
Bob D. ND9B

4220. PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 16:29:52 UTC
From: adykes@panix.com
Message-ID: <e73v20$2bb$1@panix5.panix.com>
Source record: 57712

A friend is telling me that PVC has crappy electrical characteristics
and having my wire against it for the entire antenna not good.

I've been making simple VHF antennas with small diameter PVC pipe cut
and glued to make the rigid structure and then taping 12ga copper wire
to the PVC to make the elements.

Should I switch to something else ?

--
a d y k e s @ p a n i x . c o m

Don't blame me. I voted for Gore. A Proud signature since 2001

4221. Re: Sky noise temperature - 2m, 70cm, 23cm

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 16:37:32 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <129b087sq5uom06@corp.supernews.com>
Source record: 57713

Dear Owen:

W8PIL and I (then W8TBZ) published a paper on this subject in QST using
radio astronomy information. As I recall, the article was published about
June of 1961. He has since retired from NRL and I am still going.

73, Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Owen Duffy" <owen@no.where> wrote in message
news:2q1a92pkre7o2kc0cechlks7pmh7rlacdn@4ax.com...
>
> Googling about turns up a little, and only a little information on the
> expected sky noise temperature on 2m, 70cm, 23cm.
>
> The information isn't very consistent. For example, articles that talk
> about the sky noise below 200MHz being 100K or more, and amateur
> articles talking about sky noise at 144MHz being "hundreds of
> degrees".
>
> Similary, for 70cm a broad brush figure of 45K seems to be used, and
> others talk about 20K away from the galactic plane and 60K on the
> galactic plane. (Yes, they will be blurred together with a low gain
> antenna.)
>
> Some discussions treat the "sky noise temperature" as if it includes
> spillover noise (eg in cold sky / hot earth measurements).
>
> Can anyone recommend a reliable source of sky noise characteristics
> for these bands.
>
> Additionally, I am interested in the range of ambient noise levels
> experienced for these bands for traditional DX activity (ie antennas
> at zero elevation.
>
> Alternatively, are satellite beacons a reliable source for measuring
> station receive performance?
>
> Or... is there some other better way of measuring station receive
> performance?
>
> Owen
> --

4222. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 16:40:19 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <Mlflg.61074$qd2.57668@bignews6.bellsouth.net>
Source record: 57714

"Al Dykes" <adykes@panix.com> wrote in message
news:e73v20$2bb$1@panix5.panix.com...
>
>
>
> A friend is telling me that PVC has crappy electrical characteristics
> and having my wire against it for the entire antenna not good.
>
> I've been making simple VHF antennas with small diameter PVC pipe cut
> and glued to make the rigid structure and then taping 12ga copper wire
> to the PVC to make the elements.
>
> Should I switch to something else ?
>
> --
> a d y k e s @ p a n i x . c o m
>
> Don't blame me. I voted for Gore. A Proud signature since 2001

Depends on the PVC you use. Some of it is pretty bad. Put a sample in a
microwave oven with a cup of water and turn it on for a couple of minutes.
If the plastic gets hot it is bad for antenna use.. Probably OK for supports
but I wouldnt use it to house an antenna element

4223. Re: Sky noise temperature - 2m, 70cm, 23cm

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 17:00:28 UTC
From: Brian Howie <brian@nospam.demon.co.uk>
Message-ID: <mIclpGCsaYlEFwGn@b-howie.demon.co.uk>
Source record: 57715

In message <2q1a92pkre7o2kc0cechlks7pmh7rlacdn@4ax.com>, Owen Duffy
<owen@no.where> writes
>
>Googling about turns up a little, and only a little information on the
>expected sky noise temperature on 2m, 70cm, 23cm.
>

Chart on page 94

http://radar04.lightsky.net/tutorials/ducoff/intro.to.radar.pdf

Gives bounds of sky temp for different antenna elevations as a function
of frequency. Some of the EME programs give it.

Brian
--
Brian Howie

4224. Re: antenna coil forms

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 18:14:30 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <3Kglg.61416$qd2.16512@bignews6.bellsouth.net>
Source record: 57716

"rckchp" <rckchp@comcast.net> wrote in message
news:1150256354.651203.182360@u72g2000cwu.googlegroups.com...
> Greetings,
>
> In the course of my occupation I have aquired a bunch of heavy
> cardboard tubes. These are all 3-1/4" external diameter and approx 1/8
> to 3/16" wall thickness. Before sending them to the cardboard recycling
> dump I though of offering them to the antenna coil experimenters out
> there. Some of them have what appears to be a plastic coating and would
> likely be somewhat weather resistant, but even the plain ones could be
> spray on plastic (or brushed on epoxy or poly resin?) coated. A list
> how many available and the lengths follows (the plastic coated ones
> identified with letter "P") :
>
> (2) 32-3/4" P
> (2) 24-1/2"
> (3) 18-3/4" P
> (4) 18-3/4"
> (3) 16-1/2"
> (6) 15" P
> (5) 14-1/4"
> (1) 12-3/4" P
> (3) 12-1/4
> (2) 10-1/2"
>
> I'm offering these free, first come first served, but you pay the
> postage, or you can pick them up if you're local. I think they can be
> sent parcel post without any wrapping....I'll just stick a mailing
> label on them and send them out. When it arrives just look at the
> postage sticker and reimburse me that amount. Any takers? If so, email
> me (off list) your name & mailing address.
>
> 72 & Regards,
>
> Rich k2cpe
> K2 #1102
> rckchp@comcast.net
>

Cardboard soaked in fiberglass resin makes an excellent coil form. It's
strong , waterproof and RF transparent. Even better it you put a little
glass on it.

4225. Re: Feedline impedance query

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 18:49:58 UTC
From: w8ji@akorn.net
Message-ID: <1150656598.742845.104260@p79g2000cwp.googlegroups.com>
Source record: 57717

David & Margaret McBeth wrote:
> If I join 2 lengths of 93 ohm coax to give 46.5 ohm impedance will the db
> loss on the line be greater,less or the same as a single lengthof the coax?
> ZL2DG

Assuming the cables are matched in each case, loss is the same.

Think about it this way. You have half the power through each cable. This means whatever loss you have, each cable now has half the power loss. When they are summed back together, losses are now the same.

Say you had one cable with 100 watts, and power loss was 1 watt. Now you use two cables and 50 is 50 watts in each and loss is 1/2 watt. You sum them together and you get 1 watt loss, and now have 99 watts.

That's the matched case.

In the mismatched case in limited conditions, what Reg says will work. For example at VHF and lower frequencies most cables are dominated by conductor losses. At cable less than 1/4 wl long will have decreased loss when it has some SWR in a direction that decreases current. By paralleling two cables that are LESS than 1/4 wl long, as long as conductor resistance losses dominate, you can find situations where losses decrease if the mismatch is in a direction that decreases line current.

If the lines are long increased SWR always causes increased loss. You'd have to be careful to avoid making a change that causes each line to have increased loss from standing waves, because if that happened line loss would increase.

Since 93 ohm line has terrible loss, I'd avoid it. A good line would be a short length of parallel 75 ohm line, but then who needs a 37.5 ohm line? I did that once on a 160 vertical, but the .05dB power I saved wasn't the reason. The real reason was so the 35 ohm antenna feedpoint stayed where it was instead of being transformed by the line.

73 Tom

4226. Re: Looking for simple antenna solution

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 18:59:11 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <Xnhlg.61575$qd2.1890@bignews6.bellsouth.net>
Source record: 57718

"Bob D." <bobmgtd@insightbb.com> wrote in message
news:2JSdnUf_F_ld5AjZnZ2dnUVZ_t-dnZ2d@insightbb.com...
> After years off the air, I'm ready to get back on. I want to keep it
> simple though. I picked up a 6m/2m/440 Yaesu VX-7 HT at Dayton and I plan
> to use it for both base and mobile. I want an antenna that covers these 3
> bands that I can mount off the side of my 80 ft. tower. (Off the side,
> because there is no way I can climb to the top anymore!) I'm not concerned
> with the gain, I just want something better than the rubber duck. Any
> product and mounting recommendations?
>
> --
> Bob D. ND9B
>

Find someone who can climb for you. There is usually a willing young ham
glad to do this sort of thing.

4227. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 19:03:41 UTC
From: w8ji@akorn.net
Message-ID: <1150657421.049052.304610@y41g2000cwy.googlegroups.com>
Source record: 57719

Cecil Moore wrote:
> You avoided replying to this last time. One wonders why.
> Please explain why you think the charge on the folded dipole
> would not take the DC path of least resistance.

Because your basic idea is so seriously flawed I never took you
seriously.

Anyone understanding the basic system at all would understand if the
little charges made noise from transferring charge, that noise would be
at a radio frequency. Anyone looking at what you drew and understaning
what you drew would also understand in order to short the noise energy
at the radio frequency the path would also be required to short the
good signal.

If the noise is at a different frequency than the good signal, then the
receiver itself will sort it all out.

There really wasn't any good way to answer an idea so fatally flawed. I
ignored it thinking you would figure it out on your own later, or that
Yuri would help you get a different perspective on things.

73 Tom

4228. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 19:08:03 UTC
From: w8ji@akorn.net
Message-ID: <1150657683.412603.47230@f6g2000cwb.googlegroups.com>
Source record: 57720

w...@akorn.net wrote:

> If the noise is at a different frequency than the good signal, then the
> receiver itself will sort it all out.
>
> There really wasn't any good way to answer an idea so fatally flawed. I
> ignored it thinking you would figure it out on your own later, or that
> Yuri would help you get a different perspective on things.
>
> 73 Tom

By the way Cecil, I'm absolutely serious.

I was very surprised you didn't think through what you drew and what
you proposed before posting it.

I expected even Yuri would catch the mistake you made and correct you.

73 Tom

4229. Re: Antennas and the FCC

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 19:15:23 UTC
From: fmmck@aol.com
Message-ID: <fmmck-1806061515230001@ac918f5c.ipt.aol.com>
Source record: 57721

In article <1150292304_65647@sp6iad.superfeed.net>, chuck
<nospam@nospam.net> wrote:

> Hey Jimbo,
>
> Here's a link:
>
> http://www2.arrl.org/news/rfsafety/exposure_regs.html
> ARRLWeb: The FCC's New RF-Exposure Regulations

Chuck-

Thanks for the link. I went from there to the FCC's web site and
downloaded Bulletin 65 and its supplements, including the guide for local
government.

I followed another link and found a BASIC program called rfsafety.bas at
http://www2.arrl.org/news/rfsafety/rfsafety.bas by Wayne Overbeck, N6NB.
(In the Ham Radio supplement (B) to Bulletin 65, I found a reference to
the program written by Prof. Wayne Overbeck.)

Except for the first line of the program, it runs in Chipmunk BASIC on the
Macintosh. It may also run in Microsoft QBASIC, but I didn't try it. I
went ahead and ran all combinations I use, both mobile and at home.
Apparently you can absorb a little too much RF by standing next to a
mobile, unless you consider the duty cycle!

73, Fred, K4DII

4230. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 20:09:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <mqilg.100561$H71.60942@newssvr13.news.prodigy.com>
Source record: 57722

w8ji@akorn.net wrote:
> Anyone understanding the basic system at all would understand if the
> little charges made noise from transferring charge, that noise would be
> at a radio frequency. Anyone looking at what you drew and understaning
> what you drew would also understand in order to short the noise energy
> at the radio frequency the path would also be required to short the
> good signal.

Absolutely false! Good grief, Tom, don't you even understand
impedance transformation? The impedance changes along a
transmission line with reflections. The impedance at the receiver
is NOT the same impedance as exists at the antenna feedpoint.
Since my noise problems were with a G5RV used to receive on 40m,
let's take that as an example.

G5RV dipole---30 ft. 300 ohm matching section--x--coax to RCVR

Let's assume a 50 ohm impedance at point 'x' looking toward
the receiver. What is the impedance at the dipole feedpoint?
Are you capable of that calculation? The 300 ohm matching
section is known to be 1/2WL on 20m so it is 1/4WL on 40m. The
impedance seen at the dipole feedpoint looking back toward the
receiver is therefore ~1800 ohms. A 500 ohm RF choke across the
feedpoint will considerably decrease the RF noise at the receiver.

So, Tom, which way would the RF noise rather flow? Through a
500 ohm RF choke at the feedpoint or down the transmission
line that is exhibiting an impedance of 1800 ohms. I thought
you were kidding but you really are trying to refute Ohm's law.
--
73, Cecil http://www.qsl.net/w5dxp

4231. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 20:13:50 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <2uilg.100562$H71.50366@newssvr13.news.prodigy.com>
Source record: 57723

w8ji@akorn.net wrote:
> I was very surprised you didn't think through what you drew and what
> you proposed before posting it.

And I am astounded that you would assert that an RF noise
pulse would rather flow into the 1800 ohms looking into
the feedline than to flow through the 500 ohm choke
located at the feedpoint. Or through the straight copper
wire of a folded dipole.

But, as I have said earlier, I'm willing to learn. Please
tell us all exactly how your proposed violation of Ohm's
law occurs in reality. Please see my other posting involving
a G5RV on 40m.
--
73, Cecil http://www.qsl.net/w5dxp

4232. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 21:19:33 UTC
From: w8ji@akorn.net
Message-ID: <1150665573.303635.64530@u72g2000cwu.googlegroups.com>
Source record: 57724

Cecil Moore wrote:

> And I am astounded that you would assert that an RF noise
> pulse would rather flow into the 1800 ohms looking into
> the feedline than to flow through the 500 ohm choke
> located at the feedpoint. Or through the straight copper
> wire of a folded dipole.

...and I'm astonished such a basic very simple thing like impedance and frequency resonse has tripped you up so badly. Before you post any more, you should sit back and relax and think about what you are saying.

> But, as I have said earlier, I'm willing to learn. Please
> tell us all exactly how your proposed violation of Ohm's
> law occurs in reality. Please see my other posting involving
> a G5RV on 40m.

I don't want to spend time looking at your other ideas when your basic concept of noise and selective sorting of noise though misapplication of Ohm's law is so far off base.

Why don't you take a few days an think about what the noise our receiver's hear is, and how that noise could possibly interact differently than a desired signal!

Don't rush. Think about it a while. It'll come to you and you'll understand your mistake.

73 Tom

4233. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 21:23:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <yvjlg.100578$H71.99360@newssvr13.news.prodigy.com>
Source record: 57725

w8ji@akorn.net wrote:
> By the way Cecil, I'm absolutely serious.

So am I, Tom. For the readers who haven't been keeping up with this thread, let me relate exactly what you are serious about.

I had a severe clear-sky charged-particle problem in the Arizona desert. My G5RV was arcing at my transceiver's coax connector about once per minute. I wouldn't have been able to hear any signals through the arcing noise.

40m is my favorite band. I installed a 100 uH choke across the feedpoint. It eliminated the arcing and resulted in readable signals on 40m. I don't know what the signal to noise ratio was but I could hear and work other hams during the charged particle wind storms so the S/N ratio obviously improved.

You asserted that such is impossible but it actually happened to me about 15 years ago in the Arizona desert. Anything that eliminates the charged particle arcing more than obviously improves the S/N ratio.

Here's a challenge for you, Tom. Set up an arc generator across your receiver terminals in parallel with your antenna. Measure the S/N ratio. Turn off the arc generator. If the S/N ratio doesn't improve, I will adopt your Corona God religion.
--
73, Cecil http://www.qsl.net/w5dxp

4234. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 21:28:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <5Ajlg.100579$H71.9289@newssvr13.news.prodigy.com>
Source record: 57726

w8ji@akorn.net wrote:
> Why don't you take a few days an think about what the noise our
> receiver's hear is, and how that noise could possibly interact
> differently than a desired signal!

Here's a repeat from my other posting. Set up an arc generator
across your receiver's terminals in parallel with your antenna.
What is the S/N ratio while the arc generator is running? What
is the S/N ratio when you turn off the arc generator? For you
to assert that there is no change whether the antenna terminals
are arcing or not is downright pathological.
--
73, Cecil http://www.qsl.net/w5dxp

4235. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 21:43:20 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <YNjlg.210592$Fs1.78119@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57727

Cecil Moore wrote:

>
> I had a severe clear-sky charged-particle problem in
> the Arizona desert. My G5RV was arcing at my transceiver's
> coax connector about once per minute. I wouldn't have been
> able to hear any signals through the arcing noise.

Cecil,

I am a bit confused by your description. The arcing was once per minute. Presumably the arc occurred over a very short time, much less than one second. What was happening during the other 59 seconds of each minute?

I have no doubt that an arc would interfere with reception. What about the remainder of the time?

73,
Gene

4236. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 22:01:04 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <A2klg.68404$4L1.4347@newssvr11.news.prodigy.com>
Source record: 57728

Gene Fuller wrote:
> Cecil Moore wrote:
>> I had a severe clear-sky charged-particle problem in
>> the Arizona desert. My G5RV was arcing at my transceiver's
>> coax connector about once per minute. I wouldn't have been
>> able to hear any signals through the arcing noise.
>
> I am a bit confused by your description. The arcing was once per minute.
> Presumably the arc occurred over a very short time, much less than one
> second. What was happening during the other 59 seconds of each minute?

I'm sorry, Gene, my bad. The arcing was once per second
not once per minute. I actually have never heard of such
a thing as arcing once per minute. Have you?
--
73, Cecil http://www.qsl.net/w5dxp

4237. i n f i n i t i < ! >

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 22:26:47 UTC
From: infinitie <infinitie3333@yahoo.com>
Message-ID: <1150669607.124531.296040@y41g2000cwy.googlegroups.com>
Source record: 57729

Just you Imagine this thing ---->http://humanity.5u.com/humanity.htm

4238. Re: Sky noise temperature - 2m, 70cm, 23cm

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 22:33:06 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <cokb92lbpff2q872s9s9ujaqaqqam259g0@4ax.com>
Source record: 57730

On Sun, 18 Jun 2006 12:38:55 GMT, "Dale Parfitt"
<par@parelectronics.com> wrote:

>Hi Owen,
>
>I seem to recall around 30K-40K for cold sky.
>
>At 432 and above, everyone I know is using sun noise to evaluate system
>performance. Have a look at K5SO's site:
>http://www.k5so.com/Sun_noise.html
>

Thanks, an interesting article and relevant.

However, sky noise / ambient noise remain of interest for G/T
evaluation.

Thanks
Owen
--

4239. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 23:00:33 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <eplb9259miilel08q2oo922bt7lv1ln527@4ax.com>
Source record: 57731

On Sun, 18 Jun 2006 07:10:56 -0500, "gravity"
<gravityzrainbow@yahoo.com> wrote:

>> Given the looseness of use of the unit lb to specify mass and
>> (incorrectly) force, it is a bit ambiguous... but he probably means
>> mass.
>
>lbs is always force as far as i know. slugs is mass.
>
>so long as we are confined to the planet earth, there is no difference
>really. 1 kg (mass) always weighs 2.2 lbs (force). obviously if you go to
>the moon ...
>
>kilogram, slug -- mass
>newton, pound -- force
>

I was taught (in imperial units) to differentiate mass (pound) and
force (pound-force). That learning stood me well when we changed to SI
(metric) part way through school.

Practice may be different in different places, but I suspect that it
is laxness on the part of practitioners who refer to force in units of
pounds.

I just had a look at Wikipedia (which isn't the oracle), here is their
summary:

"The pound is the name of a number of units of mass, all in the range
of 300 to 600 grams. Most commonly, it refers to the avoirdupois pound
(exactly 453.59237 g), divided into 16 avoirdupois ounces. There is
also a unit of force corresponding to the avoirdupois pound, see
pound-force."

Wikpedia highlights just another aspect of the unit, its flexibility!

Owen
PS: a slug is a unit of mass, and equivalent to about 14.6Kg or
32.2lbs. I don't think it is in wide use!
--

4240. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 23:01:25 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <129bmq7g5s4td19@corp.supernews.com>
Source record: 57732

Jimmie D wrote:
>
> Depends on the PVC you use. Some of it is pretty bad. Put a sample in a
> microwave oven with a cup of water and turn it on for a couple of minutes.
> If the plastic gets hot it is bad for antenna use.. Probably OK for supports
> but I wouldnt use it to house an antenna element

That tells you the loss when in an intense field at microwave frequencies. It doesn't tell you a thing about the loss near a typical HF or VHF antenna, except that if it passes the microwave test it's probably ok. Many materials which fail the oven test are fine for other applications.

PVC insulation on wire won't hurt an antenna noticeably, nor will PVC at low-electric field points like a dipole feedpoint. I'd avoid using it for an insulator at high field points like the end of a wire antenna or the base of an electrically short dipole.

Roy Lewallen, W7EL

4241. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 23:04:01 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <129bmv2t1gnm174@corp.supernews.com>
Source record: 57733

The main problem PVC will probably cause is to detune(*) the antenna because of its dielectric constant. If you can adjust the element lengths to compensate, it probably won't be a problem.

(*) By detune I don't mean that it just changes the resonant frequency. It'll affect the pattern as well.

Roy Lewallen, W7EL

Al Dykes wrote:
> A friend is telling me that PVC has crappy electrical characteristics
> and having my wire against it for the entire antenna not good.
>
> I've been making simple VHF antennas with small diameter PVC pipe cut
> and glued to make the rigid structure and then taping 12ga copper wire
> to the PVC to make the elements.
>
> Should I switch to something else ?
>

4242. Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 23:26:34 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Killg.53523$Lm5.13109@newssvr12.news.prodigy.com>
Source record: 57734

The way I got into MENSA during the mid-60's is that a member of MENSA said if I held Libertarian concepts, I couldn't possibly possess a high enough IQ to enter MENSA. That MENSA member paid for my entrance exam and my first year membership fees. I would now like to make that same offer to W8JI.

Tom, I will pay for your MENSA entrance exam and your first year's dues for membership. If you don't accept my offer, everyone will know what your problem really is.

So, how about it? Take the MENSA exam and report the results back here. I will pay for everything. What do you have to lose except face?
--
73, Cecil http://www.qsl.net/w5dxp

4243. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 23:42:37 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <NxIlg.2500$Td6.1997@trnddc08>
Source record: 57735

"Al Dykes" <adykes@panix.com> wrote in message
news:e73v20$2bb$1@panix5.panix.com...
>
>
>
> A friend is telling me that PVC has crappy electrical characteristics
> and having my wire against it for the entire antenna not good.
>
> I've been making simple VHF antennas with small diameter PVC pipe cut
> and glued to make the rigid structure and then taping 12ga copper wire
> to the PVC to make the elements.
>
> Should I switch to something else ?
>
> --
> a d y k e s @ p a n i x . c o m
>
> Don't blame me. I voted for Gore. A Proud signature since 2001

Hi Al

I am using 1/2 inside diameter PVC pipe (white stuff from Home Depot) to enclose three foot lengths of TV 300 ohm twin lead folded dipoles at 137 MHz. I have done the microwave oven test and couldnt detect any temperature increase. I measured the antenna's input impedance with and without the PVC cover. I detected very litle change when the PVC is included. The antenna seems to have the same sensitivity with and without the PVC.

I'd expect my experience to convince you that PVC is an OK covering for 2 meter dipoles. How much change do you see when you Grid Dip a dipole with and without the PVC??

Jerry

4244. Re: Looking for simple antenna solution

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-18 23:44:51 UTC
From: ml <m@di.net>
Message-ID: <m-EC37F2.19444618062006@news.verizon.net>
Source record: 57736

In article <Xnhlg.61575$qd2.1890@bignews6.bellsouth.net>,
"Jimmie D" <jimmiedee@bellsouth.net> wrote:

> "Bob D." <bobmgtd@insightbb.com> wrote in message
> news:2JSdnUf_F_ld5AjZnZ2dnUVZ_t-dnZ2d@insightbb.com...
> > After years off the air, I'm ready to get back on. I want to keep it
> > simple though. I picked up a 6m/2m/440 Yaesu VX-7 HT at Dayton and I plan
> > to use it for both base and mobile. I want an antenna that covers these 3
> > bands that I can mount off the side of my 80 ft. tower. (Off the side,
> > because there is no way I can climb to the top anymore!) I'm not concerned
> > with the gain, I just want something better than the rubber duck. Any
> > product and mounting recommendations?
> >
> > --
> > Bob D. ND9B
> >Hi
best of luck w/your new ht, thou not as specific as your prob looking
for i can tell you there are a few tri band even quad badd as your ht i
believe puts out a bit on 220 same goes for root they do make some
small simple verticles

any large store like hro can help or you can prob find browsing on the
net or qst

be well

4245. Re: Looking for simple antenna solution

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 00:06:38 UTC
From: dplatt@radagast.org
Message-ID: <129bqke8hoc974a@corp.supernews.com>
Source record: 57737

"Bob D." <bobmgtd@insightbb.com> wrote in message
news:2JSdnUf_F_ld5AjZnZ2dnUVZ_t-dnZ2d@insightbb.com...
> After years off the air, I'm ready to get back on. I want to keep it
> simple though. I picked up a 6m/2m/440 Yaesu VX-7 HT at Dayton and I plan
> to use it for both base and mobile.

This is a reasonable starting place, but you're likely to find that a
multiband HT has a couple of limitations which make it less than ideal
for use in base and mobile applications.

For one: HTs tend to have broadly-tuned front ends, optimized for fairly
low incoming-signal levels. This is what's needed to provide
wide-range multiband operation with a rubber dummy-load antenna.
Unfortunately, as a result, many HTs are very prone to strong-signal
overload and intermod, especially when hooked to a good antenna. If
you hook an HT to a halfwave dipole or full-length quarterwave whip on
a good ground plane, you may find it being "blasted open" by pager
signals and other strong local transmissions. This can be a real
limitation for base-station operation, and sometimes requires the use
of a narrowband notch filter to reject the pager or other strong
out-of-band signals.

In mobile operations, the lack of a separate squelch control can be a
problem on some HTs. Desired-signal and interference levels can vary
quite a lot as you drive along, and it's no fun at all (and not very
safe) to have to try to hit an HT's buttons to bring up a
squelch-setting menu while driving.

An HT is usable in both base and mobile situations, but if you find
yourself using it a lot you may also find yourself wanting a rig with
a more robust front-end. A small mobile radio could serve that
purpose in both mobile and base applications.

--
Dave Platt <dplatt@radagast.org> AE6EO
Hosting the Jade Warrior home page: http://www.radagast.org/jade-warrior
I do _not_ wish to receive unsolicited commercial email, and I will
boycott any company which has the gall to send me such ads!

4246. Re: Looking for simple antenna solution

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 00:15:18 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <qkqb92lshvaiumk27ergj1hhqtk29u8jg5@4ax.com>
Source record: 57738

On Sun, 18 Jun 2006 11:05:29 -0500, "Bob D." <bobmgtd@insightbb.com>
wrote:

>After years off the air, I'm ready to get back on. I want to keep it simple
>though. I picked up a 6m/2m/440 Yaesu VX-7 HT at Dayton and I plan to use it
>for both base and mobile. I want an antenna that covers these 3 bands that I
>can mount off the side of my 80 ft. tower. (Off the side, because there is
>no way I can climb to the top anymore!) I'm not concerned with the gain, I
>just want something better than the rubber duck. Any product and mounting
>recommendations?

Bearing in mind that most HTs suffer from IM (probably due to lack
front end selectivity), you might want to avoid wideband antennas such
as discones. Even on relatively narrow antennas, you may still
experience nuisance mute opening if you do not use CTCSS on monitored
channels.

Owen
--

4247. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 00:46:45 UTC
From: Buck <not@this.time>
Message-ID: <qksb92h90fk2779n5irgvu27dn3pe2ifup@4ax.com>
Source record: 57739

On 18 Jun 2006 12:29:52 -0400, adykes@panix.com (Al Dykes) wrote:

>
>
>
>A friend is telling me that PVC has crappy electrical characteristics
>and having my wire against it for the entire antenna not good.

>Should I switch to something else ?

Your brain, not his.

Some PVC is better than others, but I use it often. I use cpvc or the white pvc for antennas. The velocity factor is changed so the lengths are a bit shorter, but once trimmed, the antennas do well. I either use the PVC for insulators or for holding the wire rigid. I built many a dipole inside PVC for vertical or horizontal use. I also use it for insulators or spacers on open wire. Never had a problem with it.

Good luck

i hope this helps
Buck
--
73 for now
Buck
N4PGW

4248. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 01:28:32 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <s7GdnXswt_AiYAjZnZ2dnUVZ_qydnZ2d@adelphia.com>
Source record: 57740

w8ji@akorn.net wrote:
> Cecil Moore wrote:
>
>>You avoided replying to this last time. One wonders why.
>>Please explain why you think the charge on the folded dipole
>>would not take the DC path of least resistance.
>
>
> Because your basic idea is so seriously flawed I never took you
> seriously.
>
> Anyone understanding the basic system at all would understand if the
> little charges made noise from transferring charge, that noise would be
> at a radio frequency. Anyone looking at what you drew and understaning
> what you drew would also understand in order to short the noise energy
> at the radio frequency the path would also be required to short the
> good signal.

Hi Tom,

I've been reading with interest this thread. Personally I think that you and Cecil are arguing past each other on this, but whatever people do for entertainment is cool with me.

On to what you have posted...

I'm a little confused here; are you saying that the discharge (whatever it may be) is restricted to only one frequency? I'll admit stupidity on this, but I always though that static discharges are inherently pretty wide band. Why would they be restricted to a single frequency? length of the discharge, and all it's influences?

> If the noise is at a different frequency than the good signal, then the
> receiver itself will sort it all out.

Of course.

> There really wasn't any good way to answer an idea so fatally flawed. I
> ignored it thinking you would figure it out on your own later, or that
> Yuri would help you get a different perspective on things.

- 73 de Mike KB3EIA -

4249. Voltage vs. Current Balun - OCF Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 02:16:08 UTC
From: KC2PIH@gmail.com
Message-ID: <1150683368.339372.191010@p79g2000cwp.googlegroups.com>
Source record: 57741

I just installed a Off Center Fed dipole where one leg is 45 feet in
length and the other is 90 feet long. When I checked
the balun feedpoint (SO-239) with my DC ohm meter, there was a circuit.
The manufacter states its a 6:1 ratio balun and after my
test, I assume its a trifilar type. The antenna truly is "no tune" on
the 80/75, 40, 20, 17, 12 and 10 meter bands.
60, 10 and meters are all within the range of the internal tuner of my
radio.

But I was wondering what impact using a voltage balun (assuming I am
correct) has? What would be the effect of changing to a
current balun in this design? Does the OCF dipole require feeding with
balanced voltage as opposed to balanced current?
Also, I've read things about voltage baluns indicating they can't
handle a mismatch well - is that true?

Thanks,
Scott, WU2X

4250. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 02:21:53 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <5Tnlg.119290$dW3.7607@newssvr21.news.prodigy.com>
Source record: 57742

Cecil Moore wrote:
> w8ji@akorn.net wrote:
>
>> By the way Cecil, I'm absolutely serious.
>
>
> So am I, Tom. For the readers who haven't been keeping up
> with this thread, let me relate exactly what you are serious
> about.
>
> I had a severe clear-sky charged-particle problem in
> the Arizona desert. My G5RV was arcing at my transceiver's
> coax connector about once per minute. I wouldn't have been
> able to hear any signals through the arcing noise.
>
> 40m is my favorite band. I installed a 100 uH choke across
> the feedpoint. It eliminated the arcing and resulted in
> readable signals on 40m. I don't know what the signal to
> noise ratio was but I could hear and work other hams during
> the charged particle wind storms so the S/N ratio obviously
> improved.
>
> You asserted that such is impossible but it actually happened
> to me about 15 years ago in the Arizona desert. Anything that
> eliminates the charged particle arcing more than obviously
> improves the S/N ratio.
>
> Here's a challenge for you, Tom. Set up an arc generator
> across your receiver terminals in parallel with your antenna.
> Measure the S/N ratio. Turn off the arc generator. If the
> S/N ratio doesn't improve, I will adopt your Corona God
> religion.

There's no such thing as a clear-sky charged-particle problem, either
in the Arizona desert or anywhere else. Naming isn't proving. You're
going to have people blaming their arcing problems on pure fantasy.
73,
Tom Donaly, KA6RUH

4251. Re: Sky noise temperature - 2m, 70cm, 23cm

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 02:28:32 UTC
From: Dave Oldridge <doldridg@leavethisoutshaw.ca>
Message-ID: <Xns97E6C61D57CDdoldridgsprintca@64.59.135.159>
Source record: 57743

Owen Duffy <owen@no.where> wrote in
news:2q1a92pkre7o2kc0cechlks7pmh7rlacdn@4ax.com:

>
> Googling about turns up a little, and only a little information on the
> expected sky noise temperature on 2m, 70cm, 23cm.
>
> The information isn't very consistent. For example, articles that talk
> about the sky noise below 200MHz being 100K or more, and amateur
> articles talking about sky noise at 144MHz being "hundreds of
> degrees".
>
> Similary, for 70cm a broad brush figure of 45K seems to be used, and
> others talk about 20K away from the galactic plane and 60K on the
> galactic plane. (Yes, they will be blurred together with a low gain
> antenna.)
>
> Some discussions treat the "sky noise temperature" as if it includes
> spillover noise (eg in cold sky / hot earth measurements).
>
> Can anyone recommend a reliable source of sky noise characteristics
> for these bands.
>
> Additionally, I am interested in the range of ambient noise levels
> experienced for these bands for traditional DX activity (ie antennas
> at zero elevation.
>
> Alternatively, are satellite beacons a reliable source for measuring
> station receive performance?
>
> Or... is there some other better way of measuring station receive
> performance?

I'm reasonably happy with a 2m receiver that has a noise figure of 1.5db
or less. A good antenna system should be able to exceed the noise floor
of such a receiver, pointed just about anywhere in the sky. The galactic
plane should be enough

--
Dave Oldridge+
ICQ 1800667

4252. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 02:32:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <T0olg.119292$dW3.25966@newssvr21.news.prodigy.com>
Source record: 57744

Tom Donaly wrote:
> There's no such thing as a clear-sky charged-particle problem, either
> in the Arizona desert or anywhere else.

You are just showing your extreme ignorance, Tom. Many of
us have experienced exactly that problem. Jim Kelley reported
it just a couple of days ago caused by Santa Anna winds in CA.

Just because you have never experienced it is irrelevant.
To be consistent, you must also assert that Jesus never
existed because you never met him.
--
73, Cecil http://www.qsl.net/w5dxp

4253. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 02:35:03 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <L3olg.76$7_4.9@fe08.lga>
Source record: 57745

<w8ji@akorn.net> wrote :
>
> ....and as Dr. Phil would say, "How's that shielded loop thread doing
> Yuri? Is it working for you?"
>

Another jab from Tom da scientwist.

I listened to someone's advice: "do not engage in the pissing contest with skunk"
I said what I know, you said what you know, anyone can verify by building and testing the shielded loops and judging who is full of it.

Shielded loops work as shielded loops, attenuating local noise or interference with source located within fractions of wavelength from the antennas, if you know or admit it, or not. It is a FACT that any half baked ham can observe and verify. You can mumbo - jumbo your theories and display your falacies on your web pages all you want.

You can call the shield to be an "antenna" or whatever you like.

I thank you for another subject for entertainment and for the "Mythbusters" articles, when time will permit me. Right now I am busy rejuvenating 175 acres of antennas and building mother of all contest stations. Barely time to have a pi$$.

Keep it up!

73 Yuri da BUm BUm

4254. Re: Voltage vs. Current Balun - OCF Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 02:38:16 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <s6olg.119293$dW3.70395@newssvr21.news.prodigy.com>
Source record: 57746

KC2PIH@gmail.com wrote:
> But I was wondering what impact using a voltage balun (assuming I am
> correct) has? What would be the effect of changing to a
> current balun in this design? Does the OCF dipole require feeding with
> balanced voltage as opposed to balanced current?

An OCF antenna is designed to be unbalanced. If you balance the
voltages, the currents will be unbalanced. If you balance the
currents, the voltages will be unbalanced. Unbalanced antennas
are unbalanced antennas. As Aristotle and Ayn Rand said: "A is A".
--
73, Cecil http://www.qsl.net/w5dxp

4255. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 02:40:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <b8olg.119294$dW3.77585@newssvr21.news.prodigy.com>
Source record: 57747

Yuri Blanarovich wrote:
> I listened to someone's advice: "do not engage in a pissing contest with
> a skunk"

How about mud wrestling with pigs?
--
73, Cecil http://www.qsl.net/w5dxp

4256. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 02:44:34 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <Fcolg.78$7_4.8@fe08.lga>
Source record: 57748

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote
>
> There's no such thing as a clear-sky charged-particle problem, either
> in the Arizona desert or anywhere else. Naming isn't proving. You're
> going to have people blaming their arcing problems on pure fantasy.
> 73,
> Tom Donaly, KA6RUH

Ahm,
like there are no molecules of air being moved by the wind and rubbing on conductive parts?
When part is not grounded, it will not accumulate the charge?
If the charge exceeds dielectric strength of the insulator (connector), the discharge in form of spark would not happen?
Like ariplanes do not accumulate charge when flying? Or my 72 Buick?
Like Cecil is completely off the rocker making stuff up just to make himself look foolish? Hmmmmmm!
Too much funny stuff going on here from scientwific community. :-)

Yuri K3BU

4257. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 02:48:20 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <cgolg.79$7_4.1@fe08.lga>
Source record: 57749

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:b8olg.119294$dW3.77585@newssvr21.news.prodigy.com...
> Yuri Blanarovich wrote:
>> I listened to someone's advice: "do not engage in a pissing contest with
>> a skunk"
>
> How about mud wrestling with pigs?
> --
> 73, Cecil http://www.qsl.net/w5dxp

Could be healthy if the mud is medicinal and definitely not foul smelly.
Good for arthritis.

bada BUm

4258. Thumbs up for KMA Antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 03:34:37 UTC
From: David <dhuisman@bigpond.net.au>
Message-ID: <hXolg.11759$ap3.9366@news-server.bigpond.net.au>
Source record: 57750

I would just like to publicly give a big thanks to Ed at KMA antennas
http://www.kmaantennas.com

I have received much appreciated responses to my questions on this and other RF related newsgroups but the ongoing support that Ed has provided me has "blown me away". It is difficult to find people these days who are so eager to go out of their way to provide help without expecting anything in return.

Based on this experience, I have no hesitation recommending KMA antennas for anyone who is looking for excellent products with even better customer support.

regards

David Huisman

4259. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 03:34:41 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <lXolg.46564$fb2.3960@newssvr27.news.prodigy.net>
Source record: 57751

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> There's no such thing as a clear-sky charged-particle problem, either
>> in the Arizona desert or anywhere else.
>
>
> You are just showing your extreme ignorance, Tom. Many of
> us have experienced exactly that problem. Jim Kelley reported
> it just a couple of days ago caused by Santa Anna winds in CA.
>
> Just because you have never experienced it is irrelevant.
> To be consistent, you must also assert that Jesus never
> existed because you never met him.

O.k., Cecil, prove it experimentally. Many of you
may have experienced a problem, but you don't have the
foggiest notion of what caused it.
Making up causes in your head won't make them real. Making
up names, such as "clear-sky charged-particle problem" won't
magically prove them. Arguing incessantly doesn't
bring them into existence either. The only thing that makes
any sense, now that you've made a theory up in your head, is
to prove it with a series of experiments that anyone can
do to prove, or disprove, the fantasy. If you can't do that,
only fools will believe you.
73,
Tom Donaly, KA6RUH

4260. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 03:49:08 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <U8plg.149272$F_3.3879@newssvr29.news.prodigy.net>
Source record: 57752

Yuri Blanarovich wrote:

> "Tom Donaly" <dtdonaly@sbcglobal.net> wrote
>
>>There's no such thing as a clear-sky charged-particle problem, either
>>in the Arizona desert or anywhere else. Naming isn't proving. You're
>>going to have people blaming their arcing problems on pure fantasy.
>>73,
>>Tom Donaly, KA6RUH
>
>
>
> Ahm,
> like there are no molecules of air being moved by the wind and rubbing on
> conductive parts?
> When part is not grounded, it will not accumulate the charge?
> If the charge exceeds dielectric strength of the insulator (connector), the
> discharge in form of spark would not happen?
> Like ariplanes do not accumulate charge when flying? Or my 72 Buick?
> Like Cecil is completely off the rocker making stuff up just to make himself
> look foolish? Hmmmmmm!
> Too much funny stuff going on here from scientwific community. :-)
>
> Yuri K3BU
>
>

Would you like to tell me how airplanes accumulate charge, Yuri? Would
you like to give me the results of the experiments you're always
threatening to do, but never get around to doing? Would you like
to explain the triboelectric effect and how it relates to antennas
and transmission lines? Perhaps you're an expert on atmospheric
electricity and can tell us all about it. I'd especially like to
hear how the wind "rubbing on conductive parts" causes noise. Cecil
was too chicken to do any meaningful experiments with this, maybe you
can inspire us with your courage and show us how it's done. It'll
sure beat the tired, old attempts at sarcasm you're always posting here,
and probably increase your credibility, too.
73,
Tom Donaly, KA6RUH

4261. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 03:50:40 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <kaplg.149273$F_3.127630@newssvr29.news.prodigy.net>
Source record: 57753

Cecil Moore wrote:

> Yuri Blanarovich wrote:
>
>> I listened to someone's advice: "do not engage in a pissing contest
>> with a skunk"
>
>
> How about mud wrestling with pigs?

How about learning some experimental technique?
73,
Tom Donaly, KA6RUH

4262. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 04:45:09 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pZplg.53855$Lm5.48935@newssvr12.news.prodigy.com>
Source record: 57754

Tom Donaly wrote:
> The only thing that makes
> any sense, now that you've made a theory up in your head, is
> to prove it with a series of experiments that anyone can
> do to prove, or disprove, the fantasy. If you can't do that,
> only fools will believe you.

All I am doing is quoting the 2000 ARRL Handbook, Tom. I don't have to prove anything. It is up to you to prove the 2000 ARRL Handbook wrong. Here's what it said:

"Precipitation static is an almost continuous hash-type noise that often accompanies various kinds of precipitation, including snowfall. Precipitation static is caused by rain drops, snowflakes or even *wind-blown dust*, transferring a small electrical charge on contact with an antenna."

So please prove the ARRL wrong.
--
73, Cecil http://www.qsl.net/w5dxp

4263. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 04:47:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <m%plg.53856$Lm5.12692@newssvr12.news.prodigy.com>
Source record: 57755

Tom Donaly wrote:
> Cecil
> was too chicken to do any meaningful experiments with this, ...

I don't have to do any experiments, Tom. The ARRL has already
done them for me. From the 2000 ARRL Handbook:

"Precipitation static is an almost continuous hash-type noise
that often accompanies various kinds of precipitation, including
snowfall. Precipitation static is caused by rain drops, snowflakes
or even *wind-blown dust*, transferring a small electrical charge
on contact with an antenna."

If you don't agree with the ARRL, please present some proof
that they are wrong.
--
73, Cecil http://www.qsl.net/w5dxp

4264. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 04:49:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <D1qlg.53857$Lm5.4827@newssvr12.news.prodigy.com>
Source record: 57756

Tom Donaly wrote:
> How about learning some experimental technique?

I would if it was necessary, Tom. But I am relying on
the 2000 ARRL Handbook just as I rely on it for many
facts:

"Precipitation static is an almost continuous hash-type noise
that often accompanies various kinds of precipitation, including
snowfall. Precipitation static is caused by rain drops, snowflakes
or even *wind-blown dust*, transferring a small electrical charge
on contact with an antenna."

The onus is upon you, Tom. Please prove the ARRL to have made
false statements.
--
73, Cecil http://www.qsl.net/w5dxp

4265. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 06:35:35 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <gahc92tth1o0flfqd32uvbbq7e6eur2nqb@4ax.com>
Source record: 57757

On Mon, 19 Jun 2006 03:49:08 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Would you like to explain the triboelectric effect

More Xerographic philosophy? Please don't ask for more mensa
inflation!

4266. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 11:41:00 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44968d89$0$16388$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57758

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Killg.53523$Lm5.13109@newssvr12.news.prodigy.com...
> The way I got into MENSA during the mid-60's is that a
> member of MENSA said if I held Libertarian concepts, I
> couldn't possibly possess a high enough IQ to enter MENSA.
> That MENSA member paid for my entrance exam and my first
> year membership fees. I would now like to make that same
> offer to W8JI.
>
> Tom, I will pay for your MENSA entrance exam and your
> first year's dues for membership. If you don't accept
> my offer, everyone will know what your problem really
> is.
>
> So, how about it? Take the MENSA exam and report the
> results back here. I will pay for everything. What do
> you have to lose except face?
> --

two observations.

1. MENSA isn't very elite. it's the top two percent (oh wow) and even more
than that if you include the chronic retesters who barely make it in.

2. psychometrics are generally garbage.

top two percent, i'm soooo impressed.

Gravity

> 73, Cecil http://www.qsl.net/w5dxp

4267. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 11:41:41 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44968db2$0$51839$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57759

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Killg.53523$Lm5.13109@newssvr12.news.prodigy.com...
> The way I got into MENSA during the mid-60's is that a
> member of MENSA said if I held Libertarian concepts, I
> couldn't possibly possess a high enough IQ to enter MENSA.
> That MENSA member paid for my entrance exam and my first
> year membership fees. I would now like to make that same
> offer to W8JI.
>
> Tom, I will pay for your MENSA entrance exam and your
> first year's dues for membership. If you don't accept
> my offer, everyone will know what your problem really
> is.
>
> So, how about it? Take the MENSA exam and report the
> results back here. I will pay for everything. What do
> you have to lose except face?
> --

yes, but are you smart enough to know that psychometrics are racist garbage,
and that MENSA is a bunch of clowns?

Gravity

> 73, Cecil http://www.qsl.net/w5dxp

4268. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 12:07:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Srwlg.46611$fb2.26218@newssvr27.news.prodigy.net>
Source record: 57760

gravity wrote:
> top two percent, i'm soooo impressed.

Top 2% is the minimum entrance requirements. Top
0.5% will also get you in. I'm not a member anymore.
I would just like to know the IQ of someone who
asserts that the elimination of arcing doesn't
change the noise level.
--
73, Cecil http://www.qsl.net/w5dxp

4269. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 12:11:01 UTC
From: "J. D. B." <duffyb01@nospamfuse.net>
Message-ID: <9937b44969457d06640f9$14348@FUSE.NET>
Source record: 57761
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Not quite. Testing on rules, regulations and technical knowledge is a bit different than testing on one specific mode of communication. I use CW, but considered the continued archaic CW testing requirement to be silly and outdated. It should have been dropped 30 years ago.

We give driving tests on the ability to drive the car and follow the regulations. We don't test on the proper operation of a buggy whip or care and feeding of horses. While people still enjoy riding horses and driving around in buggies, they do this of their own free will and no one is forcing it on them through a testing process to get a driver's license. The horse as a general means of transportation is over. We have evolved beyond that, but people still ride horses for fun and enjoyment and the government does have to force it on individuals just in case we ever have to go back to using horses for transportation in an extreme emergency.

Cecil Moore wrote:
> J. D. B. wrote:
>> That is a very good point that I never considered. In thinking about
>> it, it makes perfect sense. "Mode Welfare" - too funny.
>
> You could also consider the written exams to be technical
> knowledge welfare and rules and regulations welfare.

4270. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 12:15:21 UTC
From: dxAce <dxAce@milestones.com>
Message-ID: <44969559.30D72920@milestones.com>
Source record: 57762
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"J. D. B." wrote:

> Not quite. Testing on rules, regulations and technical knowledge is a
> bit different than testing on one specific mode of communication. I use
> CW, but considered the continued archaic CW testing requirement to be
> silly and outdated. It should have been dropped 30 years ago.

Anybody who can't pass the minimal 5 WPM doesn't deserve a license.

dxAce
Michigan
USA

4271. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 12:21:35 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496971a$0$15851$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57763

"gravity" <gravityzrainbow@yahoo.com> wrote in message
news:44968db2$0$51839$892e7fe2@authen.yellow.readfreenews.net...
>
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:Killg.53523$Lm5.13109@newssvr12.news.prodigy.com...
> > The way I got into MENSA during the mid-60's is that a
> > member of MENSA said if I held Libertarian concepts, I
> > couldn't possibly possess a high enough IQ to enter MENSA.
> > That MENSA member paid for my entrance exam and my first
> > year membership fees. I would now like to make that same
> > offer to W8JI.
> >
> > Tom, I will pay for your MENSA entrance exam and your
> > first year's dues for membership. If you don't accept
> > my offer, everyone will know what your problem really
> > is.
> >
> > So, how about it? Take the MENSA exam and report the
> > results back here. I will pay for everything. What do
> > you have to lose except face?
> > --
>
> yes, but are you smart enough to know that psychometrics are racist
garbage,
> and that MENSA is a bunch of clowns?
>

perhaps this comment was a bit harsh.

Gravity

4272. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 12:54:14 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1150721654.164712.106260@f6g2000cwb.googlegroups.com>
Source record: 57764
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

```
an old freind wrote:
> kb9rqz_child_molester@yahoo.com wrote:
> > an old friend wrote:
> > > markie_morgan_rapesboys@yahoo.com wrote:
> no AIDS here
> > > >
> > > > Liar.
> > > no aids here
> >
> > Liar.
> get
Get help for your lying.
```

4273. old friend and MENSA

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 13:17:14 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496a418$0$15990$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57765

would old friend get accepted to MENSA?

Gravity

4274. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 13:19:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <lvxlg.53894$Lm5.21399@newssvr12.news.prodigy.com>
Source record: 57766

gravity wrote:
> perhaps this comment was a bit harsh.

There have been some relatively famous members
of MENSA. Isaac Asimov comes to mind. He described
members of MENSA as "intellectually combative".
--
73, Cecil http://www.qsl.net/w5dxp

4275. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 13:20:15 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496a4d6$0$16347$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57767

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Srwlg.46611$fb2.26218@newssvr27.news.prodigy.net...
> gravity wrote:
> > top two percent, i'm soooo impressed.
>
> Top 2% is the minimum entrance requirements. Top
> 0.5% will also get you in. I'm not a member anymore.
> I would just like to know the IQ of someone who
> asserts that the elimination of arcing doesn't
> change the noise level.
> --

this is true. if you are in the top 0.01%, there are other clubs which may be more suitable.

now W8JI does own several relatively expensive towers. IQ is often strongly correlated with financial success (at least below 130 to 140 IQ). so i guess i'm playing devil's advocate, but the guy can't be a complete idiot.

take care,

Gravity

> 73, Cecil http://www.qsl.net/w5dxp

4276. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 13:21:07 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496a501$0$16401$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57768

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Srwlg.46611$fb2.26218@newssvr27.news.prodigy.net...
> gravity wrote:
> > top two percent, i'm soooo impressed.
>
> Top 2% is the minimum entrance requirements. Top
> 0.5% will also get you in. I'm not a member anymore.
> I would just like to know the IQ of someone who
> asserts that the elimination of arcing doesn't
> change the noise level.
> --

W8JI really said that?! i've only taken a few quarters of electromagnetics,
but that sounds kind of crazy.

i better keep up with that thread.

Gravity

> 73, Cecil http://www.qsl.net/w5dxp

4277. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 13:22:54 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496a56c$0$16375$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57769

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:D1qlg.53857$Lm5.4827@newssvr12.news.prodigy.com...
> Tom Donaly wrote:
> > How about learning some experimental technique?
>
> I would if it was necessary, Tom. But I am relying on
> the 2000 ARRL Handbook just as I rely on it for many
> facts:
>
> "Precipitation static is an almost continuous hash-type noise
> that often accompanies various kinds of precipitation, including
> snowfall. Precipitation static is caused by rain drops, snowflakes
> or even *wind-blown dust*, transferring a small electrical charge
> on contact with an antenna."
>
> The onus is upon you, Tom. Please prove the ARRL to have made
> false statements.
> --

Cecil, the ARRL handbook is *not* an academic journal. it's fine to quote
from it, but it's also not the definitive work of electromagnetic theory.

Gravity

> 73, Cecil http://www.qsl.net/w5dxp

4278. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 13:24:13 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496a5bb$0$64664$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57770

i've solved it. i had to spend about two hours with Maxwell's equations,
but i figured it out. and i compensated for effects of quantum field theory
and relativity.

Gravity

4279. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 13:48:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <aXxlg.53900$Lm5.16275@newssvr12.news.prodigy.com>
Source record: 57771

gravity wrote:
> Cecil, the ARRL handbook is *not* an academic journal. it's fine to quote
> from it, but it's also not the definitive work of electromagnetic theory.

But it is "The Bible" of Amateur Radio and this is an Amateur
Radio newsgroup. Anyone disagreeing with the 2000 ARRL Handbook
should be able to quote some technical references to the contrary.
Where are the technical references that contradict the 2000 ARRL
Handbook statements on "precipitation static"?
--
73, Cecil http://www.qsl.net/w5dxp

4280. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 13:49:07 UTC
From: AB2RC <AB2RC@localhost.localdomain>
Message-ID: <slrne9daqj.3q8.Silfax@minimac.linux1.lan>
Source record: 57772

On 2006-06-16, n3ox.dan@gmail.com <n3ox.dan@gmail.com> wrote:
> fixed-tuned networks as my intent for this antenna is to be set up in
> the middle of a field in the clear at the same height all the time, and
> I want to have FAST bandswitching.
>
> An autotuner really isn't in the cards financially, and needs power.
>
> So, inductors are easy. I've got 500 feet of #10 copper wire.
>
> I need capacitors. Preferably very very cheap ones, and I guess I need

You have 500' of wire -- why bother with any switching/matching networks?

Just cut dipoles for each band and feed them off of the same feedline.

--
Alex/AB2RC

4281. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 13:54:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <o0ylg.53901$Lm5.11311@newssvr12.news.prodigy.com>
Source record: 57773

gravity wrote:
> so i
> guess i'm playing devil's advocate, but the guy can't be a complete idiot.

How about idiot savant? :-) What would you say about someone
who used the lumped inductance feature in EZNEC to try to
prove zero delay through a real world 75m bugcatcher coil? :-)
--
73, Cecil http://www.qsl.net/w5dxp

4282. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 13:54:34 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4496AC9A.4080600@fuse.net>
Source record: 57774

Cecil Moore wrote:
> The way I got into MENSA during the mid-60's is that a
> member of MENSA said if I held Libertarian concepts, I
> couldn't possibly possess a high enough IQ to enter MENSA.
> That MENSA member paid for my entrance exam and my first
> year membership fees. I would now like to make that same
> offer to W8JI.
>
> Tom, I will pay for your MENSA entrance exam and your
> first year's dues for membership. If you don't accept
> my offer, everyone will know what your problem really
> is.
>
> So, how about it? Take the MENSA exam and report the
> results back here. I will pay for everything. What do
> you have to lose except face?

So, you're saying Libertarianism and MENSA are NOT oxymoronic?
Are you then saying both are moronic?
:)

4283. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 13:59:03 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4496ADA7.5050100@fuse.net>
Source record: 57775
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

```
markie_morgan_rapesboys@yahoo.com wrote:
> an old freind wrote:
>
>>kb9rqz_child_molester@yahoo.com wrote:
>>
>>>an old friend wrote:
>>>
>>>>markie_morgan_rapesboys@yahoo.com wrote:
>>
>> no AIDS here
>>
>>>>>Liar.
>>>>
>>>>no aids here
>>>
>>>Liar.
>>
>>get
>
> Get help for your lying.
>

Why don't you guys get a room?
```

4284. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 14:12:19 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1150726339.478968.158220@c74g2000cwc.googlegroups.com>
Source record: 57626
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

jawod wrote:
> markie_morgan_rapesboys@yahoo.com wrote:

> > Get help for your lying.
> >
>
> Why don't you guys get a room?
why would I want to get a room with him?

4285. Re: Voltage vs. Current Balun - OCF Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 14:29:25 UTC
From: KC2PIH@gmail.com
Message-ID: <1150727363.929399.266860@f6g2000cwb.googlegroups.com>
Source record: 57627

If the current is unbalanced, this would mean current is likely to flow on the coax then? So perhaps the reason a voltage balun is used is to merely transform the impedance 6:1 and purposely allow the feedline to radiate? The maker of the antenna (Buckmaster) doesn't indicate any particular length of 50 ohm coax be used, but I saw a huge change in SWR and bandwidth on the upper bands when I lowered the antenna by 5 feet. Maybe this explains the behavior I saw.

-Scott

Cecil Moore wrote:
> KC2PIH@gmail.com wrote:
> > But I was wondering what impact using a voltage balun (assuming I am
> > correct) has? What would be the effect of changing to a
> > current balun in this design? Does the OCF dipole require feeding with
> > balanced voltage as opposed to balanced current?
>
> An OCF antenna is designed to be unbalanced. If you balance the
> voltages, the currents will be unbalanced. If you balance the
> currents, the voltages will be unbalanced. Unbalanced antennas
> are unbalanced antennas. As Aristotle and Ayn Rand said: "A is A".
> --
> 73, Cecil http://www.qsl.net/w5dxp

4286. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 14:33:35 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <oBylg.15$JV6.12@fe11.lga>
Source record: 57628

I don't have time to engage in pissing contests.
There are some people here who "argue" that something is not so, because they have a theory that "it can't be".
Most of my arguments or descriptions are based on reality that I or others observed and can be duplicated. If you or anyone doesn't believe in them, you can duplicate them and see for yourself. I will gladly provide details.
I am not employed or reporting to this esteemed RRAA NG, so it is at the end of my list of priorities.
Some of the misconceptions are duly noted and in due time, when I have time to sit down and write it up, I will do so.
The point is, that if Cecil has seen sparks coming from his coax under clear AZ skies, or I have seen that small loop antenna shield DOES suppress local interference - measured, seen, experienced - than arguing by scientwists is just foolish, if not pathetic.
Who's "credibility" are we then talking about?
I do not proclaim to be a scientist who spent tax dollars investigating phenomena and formulating rock solid theories as why. I am more of real engineer, who when sees some erroneous stuff posted, and I know it to be otherwise, I say my piece.
Isn't it interesting that real engineers get hammered on tangents by scientwists who are wrong and are trying to justify their "truth" by some mumbo-jumbo and obfuscating the real subject? If that's what turns them on, than they can have a field day with it.

"It'll sure beat the tired, old attempts at sarcasm you're always posting here"
Oh, that's what it is!?

73
Yuri Blanarovich, K3BU, VE3BMV

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message news:U8plg.149272$F_3.3879@newssvr29.news.prodigy.net...
> Yuri Blanarovich wrote:
>
>> "Tom Donaly" <dtdonaly@sbcglobal.net> wrote
>>
>>>There's no such thing as a clear-sky charged-particle problem, either
>>>in the Arizona desert or anywhere else. Naming isn't proving. You're
>>>going to have people blaming their arcing problems on pure fantasy.
>>>73,
>>>Tom Donaly, KA6RUH
>>
>>
>>

>> Ahm,
>> like there are no molecules of air being moved by the wind and rubbing on
>> conductive parts?
>> When part is not grounded, it will not accumulate the charge?
>> If the charge exceeds dielectric strength of the insulator (connector),
>> the discharge in form of spark would not happen?
>> Like ariplanes do not accumulate charge when flying? Or my 72 Buick?
>> Like Cecil is completely off the rocker making stuff up just to make
>> himself look foolish? Hmmmmmm!
>> Too much funny stuff going on here from scientwific community. :-)
>>
>> Yuri K3BU
>
> Would you like to tell me how airplanes accumulate charge, Yuri? Would you
> like to give me the results of the experiments you're always
> threatening to do, but never get around to doing? Would you like
> to explain the triboelectric effect and how it relates to antennas
> and transmission lines? Perhaps you're an expert on atmospheric
> electricity and can tell us all about it. I'd especially like to
> hear how the wind "rubbing on conductive parts" causes noise. Cecil
> was too chicken to do any meaningful experiments with this, maybe you
> can inspire us with your courage and show us how it's done. It'll
> sure beat the tired, old attempts at sarcasm you're always posting here,
> and probably increase your credibility, too.
> 73,
> Tom Donaly, KA6RUH

4287. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 14:39:04 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1150727944.590467.294720@c74g2000cwc.googlegroups.com>
Source record: 57629
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

dxAce wrote:
> "J. D. B." wrote:
>
> > Not quite. Testing on rules, regulations and technical knowledge is a
> > bit different than testing on one specific mode of communication. I use
> > CW, but considered the continued archaic CW testing requirement to be
> > silly and outdated. It should have been dropped 30 years ago.
>
> Anybody who can't pass the minimal 5 WPM doesn't deserve a license.
why?

and it isn't a matter f "deserving" alicense at all is about meeting
the legal mandaable requirement and now absent the treaty the code
fails to make the standards of law and the FCC knows even if you don't
>
> dxAce
> Michigan
> USA

4288. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 14:54:54 UTC
From: Dan Andersson <dan@andersson.co.uk>
Message-ID: <-cmcnQKs5ptcJwvZSa8jmw@karoo.co.uk>
Source record: 57630

Al Dykes wrote:

>
>
>
> A friend is telling me that PVC has crappy electrical characteristics
> and having my wire against it for the entire antenna not good.
>
> I've been making simple VHF antennas with small diameter PVC pipe cut
> and glued to make the rigid structure and then taping 12ga copper wire
> to the PVC to make the elements.
>
> Should I switch to something else ?
>

Yes, use thin walled glass fibre pipes!

PVC is not a coherent type/class of material. The producers use all kind of cheap crap as filler material or as pigment. The common rule is to use white PVC as most other coloured PVC contains graphite or oxide based pigments.
However, some white PVC's have chalk as a whitener and as a filler to make the PVC being formed better in the production gear. It's less sticky that way.

Some PVC materials are even "soldered" with 70MHz RF!

No, the Microwave oven test doesn't tell you the whole truth - just a hint.

I use very thin walled glassfibre pipes but with a foam filled inside. I use the expanding "gluey" insulation foam. When dried, the strength of the pipes have increased dramatically and they bend less in the wind.

Cheers

Dan / M0DFI

4289. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 15:06:55 UTC
From: Wayne <mygarbagecan@verizon.net>
Message-ID: <j4zlg.6911$nS5.3987@trnddc07>
Source record: 57631

"Al Dykes" <adykes@panix.com> wrote in message
news:e73v20$2bb$1@panix5.panix.com...
>
>
>
> A friend is telling me that PVC has crappy electrical characteristics
> and having my wire against it for the entire antenna not good.
>
> I've been making simple VHF antennas with small diameter PVC pipe cut
> and glued to make the rigid structure and then taping 12ga copper wire
> to the PVC to make the elements.
>
> Should I switch to something else ?
>
Two possibilities, if you think the PVC is detrimental.

1. Try hollow fiberglass blank arrows. (if the available length is long enough) They used to be available at certain sporting goods stores, or you could buy an arrow and cut the ends off. I made a super 2m quad with this technique. I just used a 1x1 wood boom with two snug fitting holes drilled at right angles, and slipped/centered the arrows used for spreaders.

2. Wrap the entire PVC in aluminum foil, and tape in place. From experience, I know this works at 10 and 15 meters when wrapped around bamboo poles.

--Wayne

4290. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 15:12:21 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496bf14$0$14238$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57632
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"an old freind" <kb9rqz-ars@hotmail.com> wrote in message
news:1150727944.590467.294720@c74g2000cwc.googlegroups.com...
>
> dxAce wrote:
> > "J. D. B." wrote:
> >
> > > Not quite. Testing on rules, regulations and technical knowledge is a
> > > bit different than testing on one specific mode of communication. I
use
> > > CW, but considered the continued archaic CW testing requirement to be
> > > silly and outdated. It should have been dropped 30 years ago.
> >
> > Anybody who can't pass the minimal 5 WPM doesn't deserve a license.
> why?
>
> and it isn't a matter f "deserving" alicense at all is about meeting
> the legal mandaable requirement and now absent the treaty the code
> fails to make the standards of law and the FCC knows even if you don't
> >
> > dxAce
> > Michigan
> > USA
>

5 WPM is easy. esp if you use Farnsworth.

i'm at 18 WPM, and i can copy contest exchanges at 30 WPM. i haven't made a
CW QSO in 10 years!

i think the code requirement should be 13 WPM plus for the upper classes.
keeps the riff raff out.

Gravity

4291. ULF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 15:14:52 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496bfaa$0$14626$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57633

i've been considering an antenna for the audio frequency range plus 1 to 20 hz. basically a big coil would work.

i've thought about using a steel drum, but i don't have room for that in my new QTH. mu metal rods would be very expensive, even ferrite would be expensive for an 100,000 turn antenna.

not sure what to use. maybe steel core.

Gravity

4292. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 15:17:18 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150730237.945562.121730@p79g2000cwp.googlegroups.com>
Source record: 57634

The short answer is because I like building antennas.

The more detailed answer is that I've got a forty foot long rotatable doublet made from some of those 20' crappie poles, and I want to match that. Making a fan dipole out of it would not really be possible. I'm already going to do that for 40/80 for FD, but the doublet will work well for the higher bands.

I'm eventually looking to have a 40-10m inclusive extremely lightweight rotatable antenna with good efficiency on an easily erected mast. On 40m/30m I already have a loading and matching coil to make it a "shorty 40" style shortened dipole. For 20 and up I don't need loading I just need to match it. It's going to be nice because it is tree independent. I could set it up in a parking lot on a light mast if I needed to.

Simple is not my style for field day. In a pinch I'll throw up simple dipoles. In a real emergency, I'm not going to go fancy, I'm going to go simple and resonant.

For field day, though, I like to put weird things up. I built a 3 element 15m yagi one year just for FD. The year before, I built an aluminum tubing trap dipole for 10/15m.

If 15 and 10 are dead as I expect they might be, I might even turn the crappie pole antenna into a delta loop for 20 only.

73,
Dan
N3OX

4293. Re: Voltage vs. Current Balun - OCF Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 15:17:27 UTC
From: Dan Richardson <>
Message-ID: <mpfd9212v9krc92bq2f9bltsuqere89q8u@4ax.com>
Source record: 57635

On 19 Jun 2006 07:29:25 -0700, KC2PIH@gmail.com wrote:

>If the current is unbalanced, this would mean current is likely to flow
>on the coax then? So perhaps the reason a voltage balun is used is to
>merely transform the impedance 6:1 and purposely allow the feedline to
>radiate? The maker of the antenna (Buckmaster) doesn't indicate any
>particular length of 50 ohm coax be used, but I saw a huge change in
>SWR and bandwidth on the upper bands when I lowered the antenna by 5
>feet. Maybe this explains the behavior I saw.
>
>-Scott

Scott,

Here's some information you may find helpful:

http://w2du.com/r2ch21.pdf

and

http://www.eznec.com/Amateur/Articles/Baluns.pdf

73,

Danny, K6MHE

In my many years I have come to a conclusion that one
useless man is a shame, two is a law firm, and three
or more is a congress. - John Adams

email: k6mhe<at>arrl<dot>net
http://www.k6mhe.com/

4294. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 15:20:23 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Xgzlg.119368$dW3.24331@newssvr21.news.prodigy.com>
Source record: 57636

gravity wrote:
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:Srwlg.46611$fb2.26218@newssvr27.news.prodigy.net...
>
>>gravity wrote:
>>
>>>top two percent, i'm soooo impressed.
>>
>>Top 2% is the minimum entrance requirements. Top
>>0.5% will also get you in. I'm not a member anymore.
>>I would just like to know the IQ of someone who
>>asserts that the elimination of arcing doesn't
>>change the noise level.
>>--
>
>
> this is true. if you are in the top 0.01%, there are other clubs which may
> be more suitable.
>
> now W8JI does own several relatively expensive towers. IQ is often strongly
> correlated with financial success (at least below 130 to 140 IQ). so i
> guess i'm playing devil's advocate, but the guy can't be a complete idiot.
>
> take care,
>
> Gravity
>
>
>>73, Cecil http://www.qsl.net/w5dxp
>
>
>

Anyone who thinks that there is a test that measures "intelligence"
isn't smart enough to belong to Mensa.
73,
Tom Donaly, KA6RUH

4295. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 15:30:18 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1150731017.963703.270120@f6g2000cwb.googlegroups.com>
Source record: 57637
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

gravity wrote:
> "an old freind" <kb9rqz-ars@hotmail.com> wrote in message
> news:1150727944.590467.294720@c74g2000cwc.googlegroups.com...

> > and it isn't a matter f "deserving" alicense at all is about meeting
> > the legal mandaable requirement and now absent the treaty the code
> > fails to make the standards of law and the FCC knows even if you don't
> > >
> > > dxAce
> > > Michigan
> > > USA
> > >
>
> 5 WPM is easy. esp if you use Farnsworth.

easy for you

not for me

I spent 5 years in my teens taking a test every couple of weeks towrds
the end. I did get so I might pass either the sending or receiving on a
given day but never both

guess from that data I suspect isf I had the time and schedule I could
mange to pass a receiving or better still a sending test in roughly a
year bt I don't my schedule leaves very busy eroids and very slow
eriods

but all this is beside the point
nothing in the treaty give the USA the requirement to make such a test
and nothing in the consitiotn reglates the matter so the power to use
hf specturm is resvresed byt eh 10th amend to the states or the people
themselves (para the constititon

unless the power to impose a code test can be shown to exist in other
section such preahps shwoing that it is "nessacary and proper" an
arguement that could have been made say when the miltary needed to warn
us of freqs they were suing in cw or some other argument, the FCC and
th congress lack the legeal power to maintain the test if challanged,
an expensive and unpleasent task

> i think the code requirement should be 13 WPM plus for the upper classes.
> keeps the riff raff out.
but it did not keep the riffraf out as the folks listeningt o 80 m have

known since long before the last change
>
> Gravity

4296. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 15:31:31 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <nrzlg.119373$dW3.27888@newssvr21.news.prodigy.com>
Source record: 57638

Cecil Moore wrote:

> gravity wrote:
>
>> Cecil, the ARRL handbook is *not* an academic journal. it's fine to
>> quote
>> from it, but it's also not the definitive work of electromagnetic theory.
>
>
> But it is "The Bible" of Amateur Radio and this is an Amateur
> Radio newsgroup. Anyone disagreeing with the 2000 ARRL Handbook
> should be able to quote some technical references to the contrary.
> Where are the technical references that contradict the 2000 ARRL
> Handbook statements on "precipitation static"?

Where's the experimental evidence, Cecil? You and Yuri don't have
any because you're too afraid to get your hands dirty. Insulting
Tom isn't going to help any, either, nor is intellectual
weaseling and selective quotations from dubious sources.
73,
Tom Donaly, KA6RUH

4297. i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 15:33:24 UTC
From: BILL GRIESCH -K2WDG <K2WDG@K2WDG.COM>
Message-ID: <9tzlg.24$JV6.20@fe11.lga>
Source record: 57639

wondering if someone can provide me with the length or the plans of a
6m dipole.. i have 6m's but i dont have the room to put up a full blowen
ant i think that a dipole would work fo me

please email at k2wdg@k2wdg with any information

thanks in advance

bill k2wdgh

4298. Re: Voltage vs. Current Balun - OCF Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 15:43:18 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <qCzlg.119376$dW3.42804@newssvr21.news.prodigy.com>
Source record: 57640

KC2PIH@gmail.com wrote:
> If the current is unbalanced, this would mean current is likely to flow
> on the coax then? So perhaps the reason a voltage balun is used is to
> merely transform the impedance 6:1 and purposely allow the feedline to
> radiate? The maker of the antenna (Buckmaster) doesn't indicate any
> particular length of 50 ohm coax be used, but I saw a huge change in
> SWR and bandwidth on the upper bands when I lowered the antenna by 5
> feet. Maybe this explains the behavior I saw.

The Carolina Windom is designed to radiate from the vertical
section of the feedline. You could duplicate that function
by installing a husky choke a few feet above ground. The MFJ-
853 is an inexpensive current meter that allows one to
measure the current on the coax braid. Mine arrived today.
It needs a little modification to allow the core to open
without needing the strength of Sampson.
--
73, Cecil http://www.qsl.net/w5dxp

4299. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 15:44:02 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <6Dzlg.25605$VE1.14874@newssvr14.news.prodigy.com>
Source record: 57641

gravity wrote:

> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:D1qlg.53857$Lm5.4827@newssvr12.news.prodigy.com...
>
>>Tom Donaly wrote:
>>
>>>How about learning some experimental technique?
>>
>>I would if it was necessary, Tom. But I am relying on
>>the 2000 ARRL Handbook just as I rely on it for many
>>facts:
>>
>>"Precipitation static is an almost continuous hash-type noise
>>that often accompanies various kinds of precipitation, including
>>snowfall. Precipitation static is caused by rain drops, snowflakes
>>or even *wind-blown dust*, transferring a small electrical charge
>>on contact with an antenna."
>>
>>The onus is upon you, Tom. Please prove the ARRL to have made
>>false statements.
>>--
>
>
> Cecil, the ARRL handbook is *not* an academic journal. it's fine to quote
> from it, but it's also not the definitive work of electromagnetic theory.
>
> Gravity
>
>
>>73, Cecil http://www.qsl.net/w5dxp
>
>
>

It's also a poor substitute for experimentation. Even people who
actually could think rationally, like Maxwell, Faraday, and the
others, had to base their theories on experimental evidence.
Of course, since Cecil once belonged to Mensa, all he has to
do is think something to make it true.
73,
Tom Donaly, KA6RUH

4300. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 16:05:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <lXzlg.119380$dW3.548@newssvr21.news.prodigy.com>
Source record: 57643

Tom Donaly wrote:
> Anyone who thinks that there is a test that measures "intelligence"
> isn't smart enough to belong to Mensa.

What is measured is IQ (intelligence quotient). The
field of IQ measurements is approximately as mature
as the field of radio having been around for more
than a century.

http://www.us.mensa.org http://www.mensa.org.uk
--
73, Cecil http://www.qsl.net/w5dxp

4301. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 16:11:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <z0Alg.119381$dW3.1352@newssvr21.news.prodigy.com>
Source record: 57644

Tom Donaly wrote:
> Where's the experimental evidence, Cecil?

Why not ask the ARRL? I'm just quoting them
and relating my personal experience which
agrees with them. Since you are the one
who is disagreeing with conventional wisdom,
seems the onus of proof falls upon you.
--
73, Cecil http://www.qsl.net/w5dxp

4302. Re: ULF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 16:11:45 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <uKydnd3MQJZ0VwvZnZ2dnUVZ_qydnZ2d@adelphia.com>
Source record: 57642

gravity wrote:
> i've been considering an antenna for the audio frequency range plus 1 to 20
> hz. basically a big coil would work.
>
> i've thought about using a steel drum, but i don't have room for that in my
> new QTH. mu metal rods would be very expensive, even ferrite would be
> expensive for an 100,000 turn antenna.
>
> not sure what to use. maybe steel core.

High permeability ferrite (manganese zinc) is fairly cheap in bead
form, and these can be glued or clamped together (with nylon
all-thread) to make arbitrarily long rod forms. For example, 5000u,
5/8th inch diameter, by 1 and 1/8th inch long beads (Steward part #
LFB159079-000) cost less than a dollar each from Digikey, in quantity
of 10. This will make an 11 inch long rod with very low loss at low
frequencys (less than 100 kHz). And the hole down the center eases
the problem of mounting the rod in a drill press to make the winding.
You just slip a chunk of 1/4" all-thread through the glued rod and
run a nut against each end.

4303. TORTURE IN USA: Secret Aerosol Rooms

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 16:13:47 UTC
From: nanovmh@yahoo.com
Message-ID: <1150733627.200048.203210@g10g2000cwb.googlegroups.com>
Source record: 57645

TORTURE IN USA: Secret Aerosol Rooms

Look at this!!

US Scientist needs legal help dealing with the secret aerosols rooms (SARs) operated illegally in Philadelphia area, Newark (DE), Hampton and Williamsburg (VA) and other places. Highly volatile aerosols with and without bacterial content cause dry cough, airways a...

Full text at:
http://buyit.philly.com/findit/search/results.jsp?catId=krd_philenqda...

This is a new on-line ad placed in Philadelphia Inquirer and Philadelphia Daily News on www.philly.com (see full text below) about the secret aerosols rooms in US. You can find it by searching "secret", say, in the ad section of philly.com.

Democracy can not function effectively without the informed public. As a former NASA Langley scientist working in the area of nanotechnology and nanoscale particles, I have been recently exposed to the establishment of secret gas-aerosol rooms inside of United States, at least in the Mid-Atlantic region (from Philadelphia to Virginia). First, the highly irritant aerosols have surfaced at the NASA Langley Research Center in several safety accidents. Investigations were blocked, probably, because of lack of Congressional approval for such financially-lucrative research at NASA. Later, these aerosols had been encountered outside of NASA in Virginia, Delaware and Pennsylvania. This points out to yet another proliferation of originally-sensitive technologies into domestic American life to hurt and harass people without a proper oversight and much control. This amounts to torture, extra-judicial prosecution and authoritarian intimidation tactics.

The use of such irritants and the operations of the secret gas-aerosol rooms are gross violations of human and constitutional rights of American citizens and various domestic and international laws.

----------Full text of an ad on philly.com----------
TORTURE IN USA: Secret Aerosols Rooms

US Scientist needs legal help dealing with the secret aerosols rooms (SARs) operated illegally in Philadelphia area, Newark (DE), Hampton and Williamsburg (VA). Highly volatile aerosols with and without bacterial content cause dry cough, airways and eyes irritation, chest pain and inflammation. FBI and Homeland Security associates are likely operators of SARs, while collaborators may be hotel staff and landlords, who get financial/material or other incentives. US citizens

and kids are victims.

4304. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 16:14:57 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <54Alg.119384$dW3.34923@newssvr21.news.prodigy.com>
Source record: 57646

Tom Donaly wrote:
> It's also a poor substitute for experimentation.

Quoting the ARRL Handbook sure beats having to move
back to the Arizona desert in order to perform
those experiments. Exactly what do you have against
conventional wisdom?
--
73, Cecil http://www.qsl.net/w5dxp

4305. Re: Voltage vs. Current Balun - OCF Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 16:32:23 UTC
From: KC2PIH@gmail.com
Message-ID: <1150734743.283669.272940@i40g2000cwc.googlegroups.com>
Source record: 57647

Cecil -

I was starting to think that this antenna is acting like a Carolina Windom - and I was going to ask how to determine if there are common mode current on the coax (thanks for the tip on the MFJ) . Is the 22' length of the coax of the Windom critical or is that just a minimum length? Also, if the coax is burried right below the balun at ground level, does this at all act like a choke? Since I have a barrel connector there I could also ground it at the point - any point to that (besides lightning protection)? I guess if the choke is working then grounding at that point will have no effect.

-Scott

Cecil Moore wrote:
> KC2PIH@gmail.com wrote:
> > If the current is unbalanced, this would mean current is likely to flow
> > on the coax then? So perhaps the reason a voltage balun is used is to
> > merely transform the impedance 6:1 and purposely allow the feedline to
> > radiate? The maker of the antenna (Buckmaster) doesn't indicate any
> > particular length of 50 ohm coax be used, but I saw a huge change in
> > SWR and bandwidth on the upper bands when I lowered the antenna by 5
> > feet. Maybe this explains the behavior I saw.
>
> The Carolina Windom is designed to radiate from the vertical
> section of the feedline. You could duplicate that function
> by installing a husky choke a few feet above ground. The MFJ-
> 853 is an inexpensive current meter that allows one to
> measure the current on the coax braid. Mine arrived today.
> It needs a little modification to allow the core to open
> without needing the strength of Sampson.
> --
> 73, Cecil http://www.qsl.net/w5dxp

4306. Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 16:48:57 UTC
From: earlpearl@florida.news
Message-ID: <sdoijfs-slkdfn-sdjfn@miami.fl.net>
Source record: 57648
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

Dear Mr President:

The FCC has been dumbing down ham radio for several years now. This has hurt the integrity of the service and is bad for America. They are planning to dumb it down again really soon now and their plan will make ham radio like CB and it will be bad for America. We already have one CB service on HF, we don't need two. Please pressure the FCC to endorse the following items for the good of the service and America. I wish you could run again for a third term, I would vote for you. I'm glad Al Gore wasn't able to steal the election, and John Kerry would have been a disaster, he'd be kissing terrorist butts and brown nosing them. Thanks for the fine job you're doing protecting and leading America.

Signed
(Your name & callsign)

No more automatic renewals. Individuals must retest and pass all elements required for their license class.

The passing score for written exams needs to be raised to 85%.

Code elements should be 13 wpm for General, and 20 wpm for Extra.

Make the no-code license one year non-renewable.

4307. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 16:52:09 UTC
From: F8BOE <f8boe-8@bluemail.ch>
Message-ID: <4496d630$0$5272$636a55ce@news.free.fr>
Source record: 57649

physical or electrical?

With such a question I'm wondering what "technician licence class" means...
BTW looking at your mail address, I think I'll rather send anything via
eqsl.

Or perhaps did I miss something? My English is not really perfect.

Keep on trying.

BILL GRIESCH -K2WDG trolled:

> wondering if someone can provide me with the length or the plans of a
> 6m dipole.. i have 6m's but i dont have the room to put up a full blowen
> ant i think that a dipole would work fo me
>
> please email at k2wdg@k2wdg with any information
>
> thanks in advance
>
> bill k2wdgh

4308. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 17:04:16 UTC
From: F8BOE <f8boe-8@bluemail.ch>
Message-ID: <4496d908$0$22866$626a54ce@news.free.fr>
Source record: 57650

Hello,

That's true at UHF but it should be OK at least for the 2m band depending on
the PVC type.
The better choice is PTFE but it's not really cheap!
Another alternative is glass fiber (or wood).

73 de F8BOE Olivier ...-.-

Al Dykes wrote:

>
>
>
> A friend is telling me that PVC has crappy electrical characteristics
> and having my wire against it for the entire antenna not good.
>
> I've been making simple VHF antennas with small diameter PVC pipe cut
> and glued to make the rigid structure and then taping 12ga copper wire
> to the PVC to make the elements.
>
> Should I switch to something else ?
>

4309. BNC power capacity

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 17:11:07 UTC
From: Ken Bessler <kg0wx@NOSPAMyahoo.com>
Message-ID: <MUAlg.2141$PO.1762@dukeread03>
Source record: 57651

How much power can a BNC handle? rg58 coax, 1.3:1 swr,
say, 54mhz, indoor connection. I'm using a BNC jumper between
my amp and my antenna switch. I use BNC so I can d/c quickly
when a t-storm comes in the area.

--
73's de Ken KG0WX - Kadiddlehopper #11808,
Flying Pigs #-1055, Grid EM17io, FT-857D,
Elecraft XG2, 4SQRP Tenna Dipper, Heath GD-1B

4310. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 17:26:17 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496de77$0$15725$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57652

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:lXzlg.119380$dW3.548@newssvr21.news.prodigy.com...
> Tom Donaly wrote:
> > Anyone who thinks that there is a test that measures "intelligence"
> > isn't smart enough to belong to Mensa.
>
> What is measured is IQ (intelligence quotient). The
> field of IQ measurements is approximately as mature
> as the field of radio having been around for more
> than a century.
>

psychiatry has been around hundreds of years and it's still considered
primitive by many. relativity has also been around 100 years, and it's
still pretty damn speculative.

and IQ is not intelligence. it has a 0.9 correlation with g factor as i
recall.

psychometrics have biases too. for instance, if the test uses the term
"quarter" as a unit of currency, the test is tied to the US and a few other
countries. a test that uses integer sequences like the Fibonacci is going
to be easier for a mathematician, who is trained to look for those patterns.
a test which uses analogies from 18th century English literature is not
going to be accessible to some people from Asia.

i could go on and on. some of my criticism is not leveled at
Stanford-Binet, but psychometrics in general.

also, i'd hope that whoever wrote the test is significantly smarter than me.
if not, what is the point? that dumb people can invent questions that i
can't answer?

Gravity

> http://www.us.mensa.org http://www.mensa.org.uk
> --
> 73, Cecil http://www.qsl.net/w5dxp

4311. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 17:30:36 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496df7b$0$80513$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57653

"BILL GRIESCH -K2WDG" <K2WDG@K2WDG.COM> wrote in message
news:9tzlg.24$JV6.20@fe11.lga...
> wondering if someone can provide me with the length or the plans of a
> 6m dipole.. i have 6m's but i dont have the room to put up a full blowen
> ant i think that a dipole would work fo me
>
> please email at k2wdg@k2wdg with any information
>
> thanks in advance
>
> bill k2wdgh

the general rule is L = 234/F, where F is the frequency in megahertz, and L
is the length of a quarter wave element in feet.

this is a strange troll, can't you come up with something better?

Gravity

4312. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 17:35:02 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <aj3jm3-nej.ln1@mail.specsol.com>
Source record: 57654
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

In rec.radio.amateur.antenna Earl the pearl <earlpearl@florida.news> wrote:
> Dear Mr President:

> The FCC has been dumbing down ham radio for several years now. This has
> hurt the integrity of the service and is bad for America. They are
> planning to dumb it down again really soon now and their plan will make
> ham radio like CB and it will be bad for America. We already have one CB
> service on HF, we don't need two. Please pressure the FCC to endorse the
> following items for the good of the service and America. I wish you could
> run again for a third term, I would vote for you. I'm glad Al Gore wasn't
> able to steal the election, and John Kerry would have been a disaster, he'd
> be kissing terrorist butts and brown nosing them. Thanks for the fine
> job you're doing protecting and leading America.

> Signed
> (Your name & callsign)

> No more automatic renewals. Individuals must retest and pass all elements
> required for their license class.

> The passing score for written exams needs to be raised to 85%.

> Code elements should be 13 wpm for General, and 20 wpm for Extra.

> Make the no-code license one year non-renewable.

I'm sure this very erudite letter, full of specific facts and the
results of many studies to prove it's point will immediately cause
the President to put aside all petty concerns (like the Middle East,
energy problems, changes in Medicare, investigations of members
of his party and staff, Iran's nuclear program, North Korea's ICBM
test, etc.) and order the FCC to get rid of all no code Hams.

--
Jim Pennino

Remove .spam.sux to reply.

4313. Re: Voltage vs. Current Balun - OCF Dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 17:35:09 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hfBlg.46720$fb2.13212@newssvr27.news.prodigy.net>
Source record: 57655

KC2PIH@gmail.com wrote:
> Is the 22'
> length of the coax of the Windom critical or is that just a minimum
> length?

I suspect it comes from the fact that 22 feet is very close
to 5/8WL on 28 MHz. If the vertical section were made any
longer, it might result in high angle radiation on 10m.
They probably also figure the antenna will be mounted at
least 25 feet in the air.

> Also, if the coax is burried right below the balun at ground
> level, does this at all act like a choke?

Burying probably dissipates common-mode power but if it's
dissipated, it's not radiated. Best to force that energy
into the antenna where it belongs.
--
73, Cecil http://www.qsl.net/w5dxp

4314. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 17:36:37 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <FgBlg.10260$DR1.3954@trnddc02>
Source record: 57656

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:lXzlg.119380$dW3.548@newssvr21.news.prodigy.com...
> Tom Donaly wrote:
>> Anyone who thinks that there is a test that measures "intelligence"
>> isn't smart enough to belong to Mensa.
>
> What is measured is IQ (intelligence quotient). The
> field of IQ measurements is approximately as mature
> as the field of radio having been around for more
> than a century.
>
> http://www.us.mensa.org http://www.mensa.org.uk
> --
> 73, Cecil http://www.qsl.net/w5dxp

Hi Cecil

The "joke" about the lizard in the mensa site http://www.us.mensa.org is certainly enough to make me want to back away from any organization that writes about a lizard then expects you to laugh because it isnt a lizard. I can see why you would let your membership expire.

Jerry

4315. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 17:42:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <nmBlg.46723$fb2.44830@newssvr27.news.prodigy.net>
Source record: 57657

gravity wrote:
> psychometrics have biases too. for instance, if the test uses the term
> "quarter" as a unit of currency, the test is tied to the US and a few other
> countries.

As a matter of fact, I took both the American and English
IQ tests when I took the MENSA tests. My percentile rating
was twice as good on the American test with its dollars
and cents as it was on the English test with its pounds
and shillings. Obviously, those tests are biased. The
English language is a prerequisite, for instance.
--
73, Cecil http://www.qsl.net/w5dxp

4316. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 17:46:22 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <OpBlg.46725$fb2.35772@newssvr27.news.prodigy.net>
Source record: 57658
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

Earl the pearl wrote:
> I'm glad Al Gore wasn't
> able to steal the election, and John Kerry would have been a disaster, he'd
> be kissing terrorist butts and brown nosing them.

And please, President Bush, don't allow the FCC to issue an
amateur radio license to illiterates.
--
73, Cecil http://www.qsl.net/w5dxp

4317. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 17:55:26 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <jqudnZRgW5WWeAvZnZ2dnUVZ_oudnZ2d@comcast.com>
Source record: 57659

3 meters.

Almost 10 years licensed ... WOW

BILL GRIESCH -K2WDG wrote:
> wondering if someone can provide me with the length or the plans of a
> 6m dipole.. i have 6m's but i dont have the room to put up a full blowen
> ant i think that a dipole would work fo me
>
> please email at k2wdg@k2wdg with any information
>
> thanks in advance
>
> bill k2wdgh

4318. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 18:01:06 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <CDBlg.46729$fb2.14580@newssvr27.news.prodigy.net>
Source record: 57660

Jerry Martes wrote:
> The "joke" about the lizard in the mensa site http://www.us.mensa.org is
> certainly enough to make me want to back away from any organization that
> writes about a lizard then expects you to laugh because it isnt a lizard.

A lizard is a reptile. Isn't a newt an amphibian?

> I can see why you would let your membership expire.

MENSA doesn't offer senior discounts. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4319. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 18:03:02 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <rFBlg.57799$9c6.28215@dukeread11>
Source record: 57661

Owen Duffy wrote:

>
> I was taught (in imperial units) to differentiate mass (pound) and
> force (pound-force). That learning stood me well when we changed to SI
> (metric) part way through school.
>

You were taught wrong. If you use pounds in a formula that wants mass such as F=M*A you will get the wrong answer. So lets say you weigh 200 lbs on earth where A = 32 ft/sec^2. You can then calculate your mass by solving for M = F/A or 200/32 = 6.25.

When you are doing physical calculations it is very important to use the correct units, other wise you calculations are meaningless. Suppose you want to know what you will weigh on the moon where the acceleration due to gravity is 5.25 ft/sec^2. F = M*A if you use 200 for your mass you get, 200 * 5.25 = 1050, that indicates you would weigh 1050 lbs on the moon. Which is clearly wrong. Trying again with the correct units and you get, 6.25 * 5.25 = 32.8, now that sounds more like what you would weight on the moon.

In the non scientific world, where the metric unit KG is used for weight, M=F*A works just fine if you put what you call "weight" in KG in for M in the formula.

It's arguable which method is better, using mass or force units for weight. What you want to know is do you need to change your weight, if the doctor tells you that you need to loose weight, that's easy just move to the moon, done. What he really wants is for you to loose mass. So your weight (force) can change with gravity, but your mass doesn't change. Unless of course you loose weight ;)

--
Chris W
KE5GIX

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4320. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 18:12:22 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <36qd92pv7th3s8a2poq0h9n9j690p9po6c@4ax.com>
Source record: 57662

On Mon, 19 Jun 2006 13:03:02 -0500, Chris W <1qazse4@cox.net> wrote:

>the doctor tells you that you need to loose weight, that's easy just
>move to the moon, done.

Hi Chris,

Language is a strange thing. For instance the doctor would probably
prescribe a laxative if he wanted you to loose weight.

73's
Richard Clark, KB7QHC

4321. Re: BNC power capacity

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 18:17:42 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <bTBlg.57803$9c6.29955@dukeread11>
Source record: 57663

nospam@nouce.bellatlantic.net wrote:
> On Mon, 19 Jun 2006 12:11:07 -0500, "Ken Bessler"
> <kg0wx@NOSPAMyahoo.com> wrote:
>
>
>>How much power can a BNC handle? rg58 coax, 1.3:1 swr,
>>say, 54mhz, indoor connection. I'm using a BNC jumper between
>>my amp and my antenna switch. I use BNC so I can d/c quickly
>>when a t-storm comes in the area.
>
>
> Comfortable at 100W, I doubt more would be reasonable.
>
> Allison

I don't know that answer either but I'm sure it is higher than that. I have seen coaxial relays with SMA connectors that can handle 400 watts at a higher frequency than 50 Mhz. Also get an N connector and a BNC connector and do a close comparison of the pin and the shield inside the connector. They look pretty close. In fact an N male will connect to a BNC female, just no way to hold them together. The other way around doesn't work because the BNC retention housing gets in the way.

--
Chris W
KE5GIX

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from anywhere, for any occasion!
http://thewishzone.com

4322. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 18:50:55 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e76uoq$508$1@news.service.uci.edu>
Source record: 57671

Tom Donaly wrote:

> Where's the experimental evidence, Cecil?

Ever heard of Ben Franklin? :-)

73, ac6xg

4323. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 18:56:37 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496f3a2$0$14626$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57664

"Chris W" <1qazse4@cox.net> wrote in message
news:rFBlg.57799$9c6.28215@dukeread11...
> Owen Duffy wrote:
>
> >
> > I was taught (in imperial units) to differentiate mass (pound) and
> > force (pound-force). That learning stood me well when we changed to SI
> > (metric) part way through school.
> >
>
> You were taught wrong. If you use pounds in a formula that wants mass
> such as F=M*A you will get the wrong answer.

F = MA
F = 1 pound * 32 feet/s^2
F = 32 pound*feet/s^2

you will note that pound(mass)* feet/s^2 is NOT the pound force unit. the
pound force unit is slug*feet/s^2. there is nothing wrong with the pound
mass unit per se.

you alluded to slugs.

F = MA
F = 1 slug * 32 feet/s^2
F = 32 slugs*feet/s^2 = 32 pounds

anyone else having flashbacks to particle dynamics class?

Gravity

So lets say you weigh 200
> lbs on earth where A = 32 ft/sec^2. You can then calculate your mass by
> solving for M = F/A or 200/32 = 6.25.
>
> When you are doing physical calculations it is very important to use the
> correct units, other wise you calculations are meaningless. Suppose you
> want to know what you will weigh on the moon where the acceleration due
> to gravity is 5.25 ft/sec^2. F = M*A if you use 200 for your mass you
> get, 200 * 5.25 = 1050, that indicates you would weigh 1050 lbs on the
> moon. Which is clearly wrong. Trying again with the correct units and
> you get, 6.25 * 5.25 = 32.8, now that sounds more like what you would
> weight on the moon.
>
> In the non scientific world, where the metric unit KG is used for
> weight, M=F*A works just fine if you put what you call "weight" in KG in

> for M in the formula.
>
> It's arguable which method is better, using mass or force units for
> weight. What you want to know is do you need to change your weight, if
> the doctor tells you that you need to loose weight, that's easy just
> move to the moon, done. What he really wants is for you to loose mass.
> So your weight (force) can change with gravity, but your mass doesn't
> change. Unless of course you loose weight ;)
>
>
> --
> Chris W
> KE5GIX
>
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> from anywhere, for any occasion!
> http://thewishzone.com

4324. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 19:01:37 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <129dt4k72vlv478@corp.supernews.com>
Source record: 57665

Chris W wrote:
> Owen Duffy wrote:
>
>>
>> I was taught (in imperial units) to differentiate mass (pound) and
>> force (pound-force). That learning stood me well when we changed to SI
>> (metric) part way through school.
>>
>
> You were taught wrong. If you use pounds in a formula that wants mass
> such as F=M*A you will get the wrong answer. So lets say you weigh 200
> lbs on earth where A = 32 ft/sec^2. You can then calculate your mass by
> solving for M = F/A or 200/32 = 6.25. . .

That's 6.25 pounds mass, I presume, for someone weighing 200 pounds force.

In my entire engineering school curriculum, I had only two courses which didn't use the metric system, Statics and Dynamics, taught by the civil engineering department. I have vague recollections of pounds force, pounds mass, slugs, and poundals. As often as not, my answers were off by g^2, since I never could remember which ones already had gravitational acceleration built in and which didn't. But I developed a method to deal with it. When presented with a problem, I first converted everything to SI units. Then I solved the problem and converted the answer back to U.S. units.

What a horrible system! My hat's off to the Canadians, who had the will to convert, and established -- and stuck with -- a systematic program to do it. What the U.S. did was to declare the metric system to be official ("Mission Accomplished!") and change whiskey bottles from fifths to 750 ml (which was promoted by the booze industry because it made the bottles just a little smaller and they could charge the same price). Wow.

Roy Lewallen, W7EL

4325. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 19:03:53 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496f557$0$5227$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57666

"Owen Duffy" <owen@no.where> wrote in message
news:eplb9259miilel08q2oo922bt7lv1ln527@4ax.com...
> On Sun, 18 Jun 2006 07:10:56 -0500, "gravity"
> <gravityzrainbow@yahoo.com> wrote:
>
>
> >> Given the looseness of use of the unit lb to specify mass and
> >> (incorrectly) force, it is a bit ambiguous... but he probably means
> >> mass.
> >
> >lbs is always force as far as i know. slugs is mass.
> >
> >so long as we are confined to the planet earth, there is no difference
> >really. 1 kg (mass) always weighs 2.2 lbs (force). obviously if you go
to
> >the moon ...
> >
> >kilogram, slug -- mass
> >newton, pound -- force
> >
>
> I was taught (in imperial units) to differentiate mass (pound) and
> force (pound-force). That learning stood me well when we changed to SI
> (metric) part way through school.
>
> Practice may be different in different places, but I suspect that it
> is laxness on the part of practitioners who refer to force in units of
> pounds.
>
> I just had a look at Wikipedia (which isn't the oracle), here is their
> summary:
>
> "The pound is the name of a number of units of mass, all in the range
> of 300 to 600 grams. Most commonly, it refers to the avoirdupois pound
> (exactly 453.59237 g), divided into 16 avoirdupois ounces. There is
> also a unit of force corresponding to the avoirdupois pound, see
> pound-force."
>
> Wikpedia highlights just another aspect of the unit, its flexibility!
>
> Owen
> PS: a slug is a unit of mass, and equivalent to about 14.6Kg or
> 32.2lbs. I don't think it is in wide use!
> --

i first heard of slugs at age 7, but i've never seen them used in an engineering class.

we used SI almost exclusively in university and high school. i was taught there that pounds is a unit of force (not mass). however Wikipedia claims pounds is a standardized unit of mass, not force.

so we are both right really.

as i've noted in another post, 1 slug at in Earth's gravitational field is ~ 32 pounds, so it's a convenient unit to use.

so basically if NIST (or whoever) defines it as mass, then we are stuck with it.

"honey do i look fat in this dress?"
"no baby, you are no more than 5 slugs or so."

Gravity

4326. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 19:07:52 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496f646$0$79689$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57667

just a note, "charged particle" normally refers to a fermion like an
electron or proton. "charged dust particle" might be a better term.

Gravity

4327. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 19:09:54 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4496f6bf$0$16281$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57668

"Yuri Blanarovich" <K3BU@optonline.net> wrote in message
news:oBylg.15$JV6.12@fe11.lga...

> The point is, that if Cecil has seen sparks coming from his coax under
clear
> AZ skies, or I have seen that small loop antenna shield DOES suppress
local
> interference - measured, seen, experienced - than arguing by scientwists
is
> just foolish, if not pathetic.

it's not dust particles, it's probably WIMPs or neutrinos. or an
evaporating graviton passing from another universe into ours.

Gravity

4328. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 19:44:31 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <z8Dlg.57804$9c6.44111@dukeread11>
Source record: 57669

Roy Lewallen wrote:
>
>
> Chris W wrote:
>
>> Owen Duffy wrote:
>>
>>>
>>> I was taught (in imperial units) to differentiate mass (pound) and
>>> force (pound-force). That learning stood me well when we changed to SI
>>> (metric) part way through school.
>>>
>>
>> You were taught wrong. If you use pounds in a formula that wants mass
>> such as F=M*A you will get the wrong answer. So lets say you weigh
>> 200 lbs on earth where A = 32 ft/sec^2. You can then calculate your
>> mass by solving for M = F/A or 200/32 = 6.25. . .
>
>
> That's 6.25 pounds mass, I presume, for someone weighing 200 pounds force.

No, it is 6.25 slugs of mass. There is no such thing as pounds of mass.
Sorry for leaving off the units in my last post. Just because
someone says x KG of force or x lbs of mass doesn't mean that KG can be
force and pounds can be mass.

Distance:
Meter, Feet
Force:
Newton, Pound
Mass:
KG, Slug
Time:
Second, Second (Can you imagine if there were different time units in
each system?)

All other units are derived from these. Actually Newtons and Pounds can
be derived from time, mass and distance. 1 newton = 1 KG*M/s^2 and 1
pound = 1 slug*ft/s^2. Which brings us right back to that fundamental
formula F = M*A, 200 lbs = 6.25 slugs * 32 ft/sec^2.

--
Chris W
KE5GIX

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4329. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 19:48:46 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <zcDlg.57805$9c6.18712@dukeread11>
Source record: 57670

gravity wrote:

>
> i first heard of slugs at age 7, but i've never seen them used in an
> engineering class.
>
> we used SI almost exclusively in university and high school. i was taught
> there that pounds is a unit of force (not mass). however Wikipedia claims
> pounds is a standardized unit of mass, not force.

I don't care who says pounds is a unit of mass, they are wrong! If you
use pounds in a formula that wants mass, your answer will be WRONG.

--
Chris W
KE5GIX

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4330. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 20:12:39 UTC
From: Brian Howie <brian@nospam.demon.co.uk>
Message-ID: <eQarPfB3UwlEFwAD@b-howie.demon.co.uk>
Source record: 57673

In message <9tzlg.24$JV6.20@fe11.lga>, BILL GRIESCH -K2WDG
<K2WDG@K2WDG.COM> writes
>wondering if someone can provide me with the length or the plans of a
>6m dipole.. i have 6m's but i dont have the room to put up a full
>blowen ant i think that a dipole would work fo me
>
>please email at k2wdg@k2wdg with any information
>
>thanks in advance
>
>bill k2wdgh

By chance I made one at the weekend. 113.5", 1/2 " diam ali tubing. I
used the yoke of an old TV CRT as a choke balun with a few turns of
UR67.

If you don't have space, a simple cubical quad is pretty compact.

73 Brian GM4DIJ
--
Brian Howie

4331. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 20:12:57 UTC
From: Howard W3CQH <hgorden@adelphia.net>
Message-ID: <E9ydnYblkdLUmArZnZ2dnUVZ_qCdnZ2d@adelphia.com>
Source record: 57672

Thanks to all that have answered my original post - but the information that I seek has not been answered.

I understand that section 207 of the FCC telecomm act 1996 contains information that I might be able to use to help me in this matter. Where can I obtain a copy of Section 207? I cannot find it posted on the FCC website!

Thanks,

"Howard W3CQH" <hgorden@adelphia.net> wrote in message news:DvmdnX0ALIEzxQnZnZ2dnUVZ_rmdnZ2d@adelphia.com...
> Looking for specs on any log periodic antenna that covers 50Mhz - 1300Mhz,
> (Ham variety). Specs must also contain that it can withstand 80MPH wind
> and 30 Lbs of ICE?
>
> Thanks and best DXin.
>
> de Howard W3CQH
>
>
>

4332. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 20:18:29 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449706d3$0$16375$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57674

"Chris W" <1qazse4@cox.net> wrote in message
news:z8Dlg.57804$9c6.44111@dukeread11...
> Roy Lewallen wrote:
> >
> >
> > Chris W wrote:
> >
> >> Owen Duffy wrote:
> >>
> >>>
> >>> I was taught (in imperial units) to differentiate mass (pound) and
> >>> force (pound-force). That learning stood me well when we changed to SI
> >>> (metric) part way through school.
> >>>
> >>
> >> You were taught wrong. If you use pounds in a formula that wants mass
> >> such as F=M*A you will get the wrong answer. So lets say you weigh
> >> 200 lbs on earth where A = 32 ft/sec^2. You can then calculate your
> >> mass by solving for M = F/A or 200/32 = 6.25. . .
> >
> >
> > That's 6.25 pounds mass, I presume, for someone weighing 200 pounds
force.
>
> No, it is 6.25 slugs of mass. There is no such thing as pounds of mass.

please read Wikipedia. Owen is correct. pounds are firstly a unit of mass,
and secondly a unit of force. Wikipedia cites several sources.

200 pounds of mass weighs approximately 200 pounds of force on the surface
of Earth. 1 slug is 32 pounds of force on the Earth.

pounds-mass is standardized to kilograms, which are in turn standardized to
an alloy bar or other methods.

Gravity

> Sorry for leaving off the units in my last post. Just because
> someone says x KG of force or x lbs of mass doesn't mean that KG can be
> force and pounds can be mass.
>
>
> Distance:
> Meter, Feet
> Force:
> Newton, Pound

> Mass:
> KG, Slug
> Time:
> Second, Second (Can you imagine if there were different time units in
> each system?)
>
>
> All other units are derived from these. Actually Newtons and Pounds can
> be derived from time, mass and distance. 1 newton = 1 KG*M/s^2 and 1
> pound = 1 slug*ft/s^2. Which brings us right back to that fundamental
> formula F = M*A, 200 lbs = 6.25 slugs * 32 ft/sec^2.
>
>
> --
> Chris W
> KE5GIX
>
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> from anywhere, for any occasion!
> http://thewishzone.com

4333. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 20:24:00 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4497081e$0$79450$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57675

everyone who is arguing that pounds is not a unit of mass, please see:

https://carnot.physics.buffalo.edu/archives/2002/07_2002/msg00062.html

this post cites a NIST publication, which is definitive for the USA. there is no room for argument.

if you don't live in the USA, well a pound can be anything you wish it to be.

Gravity

4334. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 20:32:47 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44970af5$0$15851$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57577

"Chris W" <1qazse4@cox.net> wrote in message
news:zcDlg.57805$9c6.18712@dukeread11...
> gravity wrote:
>
> >
> > i first heard of slugs at age 7, but i've never seen them used in an
> > engineering class.
> >
> > we used SI almost exclusively in university and high school. i was
taught
> > there that pounds is a unit of force (not mass). however Wikipedia
claims
> > pounds is a standardized unit of mass, not force.
>
>
> I don't care who says pounds is a unit of mass, they are wrong! If you
> use pounds in a formula that wants mass, your answer will be WRONG.
>

please read the NIST publications which define the Avoirdupois pound in
terms of kilograms. this is not debateable since NIST is *the* authority in
the US.

Gravity

> --
> Chris W
> KE5GIX
>
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> give the gifts they want
> One stop wish list for any gift,
> from anywhere, for any occasion!
> http://thewishzone.com

4335. Re: ULF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 20:34:56 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <QTDlg.69515$4L1.43541@newssvr11.news.prodigy.com>
Source record: 57576

gravity wrote:
> i've been considering an antenna for the audio frequency range plus 1 to 20
> hz. basically a big coil would work.
>
> i've thought about using a steel drum, but i don't have room for that in my
> new QTH. mu metal rods would be very expensive, even ferrite would be
> expensive for an 100,000 turn antenna.
>
> not sure what to use. maybe steel core.
>
> Gravity
>
>

"Detecting Natural Electromagnetic Waves," The Amateur Scientist, Shawn
Carlson, Scientific American, May, 1996. 50,000 turns #30 wire on 1/2
inch rebar, 2 feet long. You'll have to make your own amplifier and low
pass filter.
73,
Tom Donaly, KA6RUH

4336. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 20:36:07 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44970af6$0$15851$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57578

"Howard W3CQH" <hgorden@adelphia.net> wrote in message
news:E9ydnYblkdLUmArZnZ2dnUVZ_qCdnZ2d@adelphia.com...
> Thanks to all that have answered my original post - but the information
that
> I seek has not been answered.
>
> I understand that section 207 of the FCC telecomm act 1996 contains
> information that I might be able to use to help me in this matter. Where
> can I obtain a copy of Section 207? I cannot find it posted on the FCC
> website!
>

if such things are critical in your application, hire an engineer or contact
Create, Tennadyne, or manufacturers of commercial logs. i'm sure those
companies can build something for you.

Gravity

> Thanks,
>
>
>
> "Howard W3CQH" <hgorden@adelphia.net> wrote in message
> news:DvmdnX0ALIEzxQnZnZ2dnUVZ_rmdnZ2d@adelphia.com...
> > Looking for specs on any log periodic antenna that covers 50Mhz -
1300Mhz,
> > (Ham variety). Specs must also contain that it can withstand 80MPH wind
> > and 30 Lbs of ICE?
> >
> > Thanks and best DXin.
> >
> > de Howard W3CQH
> >
> >
> >
>
>

4337. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 20:41:39 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <7_Dlg.69518$4L1.60336@newssvr11.news.prodigy.com>
Source record: 57579

Jim Kelley wrote:

>
>
> Tom Donaly wrote:
>
>
>> Where's the experimental evidence, Cecil?
>
>
> Ever heard of Ben Franklin? :-)
>
> 73, ac6xg
>

Yes, and I've heard of Thales of Miletus, too, and both of
those gentlemen would have agreed with Tom Rauch because both
knew the value of experimentation and experience.
73,
Tom Donaly, KA6RUH

4338. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 21:10:54 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <ypElg.41537$mF2.397@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57580

gravity wrote:

> please read the NIST publications which define the Avoirdupois pound in
> terms of kilograms. this is not debateable since NIST is *the* authority in
> the US.

The NIST publications define the numeric conversion factors, not the
legality for use of any particular terminology.

The approximate conversion factor for a pound (mass) is 0.4535924 kilogram.

The approximate conversion for a pound (force) is 4.448222 newton.

The gravitational acceleration, small g, is defined as exactly 9.80665
in SI units, but it is not similarly defined in inch/pound units.

Interestingly enough, however, is that the ratio of pound-force per
pound (lbf/lb) (thrust to mass ratio) is exactly converted to newton per
kilogram (N/kg) by the factor 9.80665.

The position of the US Government can be summarized from the following
excerpt found in Federal Standard 376B, Preferred Metric Units for
General Use by the Federal Government.

In the intro to the section on mass there is a note that says,

*** There is ambiguity in the use of the term "weight" to mean either
force or mass. In general usage, the term "weight" nearly always means
mass and this is the meaning given the term in U.S. laws and
regulations. Where the term is so used, weight is expressed in kilograms
in SI. In many fields of science and technology the term "weight" is
defined as the force of gravity acting on an object, i.e., as the
product of the mass of the object and the local acceleration of gravity.
Where weight is so defined, it is expressed in newtons in SI. ***

The document then goes on to show many conversion factors from both
pounds (mass) and pounds (force) to SI units. No indication that one is
more legal or correct than the other.

Soooo, use pounds any way you wish; just do the math correctly.

73,
Gene
W4SZ

4339. Re: BNC power capacity

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 21:25:08 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <015e92l2jk7olervqnt4ra051bmunc8hlk@4ax.com>
Source record: 57581

On Mon, 19 Jun 2006 19:58:13 GMT, nospam@nouce.bellatlantic.net wrote:

>On Mon, 19 Jun 2006 13:17:42 -0500, Chris W <1qazse4@cox.net> wrote:
>
>>nospam@nouce.bellatlantic.net wrote:
>>> On Mon, 19 Jun 2006 12:11:07 -0500, "Ken Bessler"
>>> <kg0wx@NOSPAMyahoo.com> wrote:
>>>
>>>
>>>>>>How much power can a BNC handle? rg58 coax, 1.3:1 swr,
>>>>>>say, 54mhz, indoor connection. I'm using a BNC jumper between
>>>>>>my amp and my antenna switch. I use BNC so I can d/c quickly
>>>>>>when a t-storm comes in the area.
>>>
>>>
>>> Comfortable at 100W, I doubt more would be reasonable.
>>>
>>> Allison
>>
>>
>>I don't know that answer either but I'm sure it is higher than that. I
>>have seen coaxial relays with SMA connectors that can handle 400 watts
>>at a higher frequency than 50 Mhz. Also get an N connector and a BNC
>>connector and do a close comparison of the pin and the shield inside the
>>connector. They look pretty close. In fact an N male will connect to a
>>BNC female, just no way to hold them together. The other way around
>>doesn't work because the BNC retention housing gets in the way.
>
>And how much power can RG58 take? You have to look at the connector
>and cable as a whole not their parts.

Doesn't it fail either by flashover or exceeding its permitted
temperatures?

If so then you will need to know the frequency, SWR, loss, duty cycle
etc to work it out, won't you?

Owen
--

4340. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 21:26:03 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <Jdidnajavs31iwrZnZ2dnUVZ_s2dnZ2d@comcast.com>
Source record: 57582

Jim Kelley wrote:

>
>
> Tom Donaly wrote:
>
>
>> Where's the experimental evidence, Cecil?
>
>
> Ever heard of Ben Franklin? :-)
>
> 73, ac6xg
>

Every winter here in New England we run numerous experiments, every time I walk across the living room and touch a metal door knob.

The US military has an ESD specification of 25 KV @ 5 KOhms from a healthy capacitor as a simulator.

Electro static discharge on antennas has been around for years. It is real!

Dry Climate and Wind are all that's needed. Now, is the Physics at the air molecule level [Oxygen, Nitrogen, etc.], ionized Oxygen or Nitrogen atoms, charged dust particle level [that just begs the issue ... how did the dust get charged?], Van De Graff level, etc.? Who knows?

But, the antenna ESD is a very REAL effect. You can hypothesize the cause all day. To solve the problem at the system level, I added an ESD bleed into my antenna switches.

I'm going to filter this thread to the circular file.

4341. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 21:27:02 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <449716a6$0$1012$39cecf19@news.twtelecom.net>
Source record: 57583

n3ox.dan@gmail.com wrote:

>
> If 15 and 10 are dead as I expect they might be, I might even turn the
> crappie pole antenna into a delta loop for 20 only.
>
> 73,
> Dan
> N3OX
>

A fairly complete how-to for this is at

http://www.fros.com/KI0GU/w6zodelta.htm

tom
K0TAR

4342. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 21:32:20 UTC
From: earlpearl@florida.news
Message-ID: <d9u342h-sdie3-aosdi-qw0e9@miami.fl.news>
Source record: 57585
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

In article <aj3jm3-nej.ln1@mail.specsol.com>, jimp@specsol.spam.sux.com wrote:
>In rec.radio.amateur.antenna Earl the pearl <earlpearl@florida.news> wrote:
>> Dear Mr President:
>
>> The FCC has been dumbing down ham radio for several years now. This has
>> hurt the integrity of the service and is bad for America. They are
>> planning to dumb it down again really soon now and their plan will make
>> ham radio like CB and it will be bad for America. We already have one CB
>> service on HF, we don't need two. Please pressure the FCC to endorse the
>> following items for the good of the service and America. I wish you could
>> run again for a third term, I would vote for you. I'm glad Al Gore wasn't
>> able to steal the election, and John Kerry would have been a disaster, he'd
>> be kissing terrorist butts and brown nosing them. Thanks for the fine
>> job you're doing protecting and leading America.
>
>> Signed
>> (Your name & callsign)
>
>
>> No more automatic renewals. Individuals must retest and pass all elements
>> required for their license class.
>
>> The passing score for written exams needs to be raised to 85%.
>
>> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
>> Make the no-code license one year non-renewable.
>
>I'm sure this very erudite letter, full of specific facts and the
>results of many studies to prove it's point will immediately cause
>the President to put aside all petty concerns (like the Middle East,
>energy problems, changes in Medicare, investigations of members
>of his party and staff, Iran's nuclear program, North Korea's ICBM
>test, etc.) and order the FCC to get rid of all no code Hams.

Email anyway, it can't hurt. The integrity of the service is at stake.

When the bands head further into the shitter, we can say we at least tried to
save the hobby.

Earl

4343. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 21:34:30 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1150752869.774143.324970@r2g2000cwb.googlegroups.com>
Source record: 57586
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

Earl the pearl wrote:
> Dear Mr President:
>
> The FCC has been dumbing down ham radio for several years now. This has
> hurt the integrity of the service and is bad for America. They are
> planning to dumb it down again really soon now and their plan will make
> ham radio like CB and it will be bad for America. We already have one CB
> service on HF, we don't need two. Please pressure the FCC to endorse the
> following items for the good of the service and America. I wish you could
> run again for a third term, I would vote for you. I'm glad Al Gore wasn't
> able to steal the election, and John Kerry would have been a disaster, he'd
> be kissing terrorist butts and brown nosing them. Thanks for the fine
> job you're doing protecting and leading America.
>
> Signed
> (Your name & callsign)
>
>
> No more automatic renewals. Individuals must retest and pass all elements
> required for their license class.
>
> The passing score for written exams needs to be raised to 85%.
>
> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
> Make the no-code license one year non-renewable.
well since I used to work for someone that is now a member of the VP
staff I have forworded to him for his amusment and the amussment of the
staff at the White House and Blair House

I'll let you know what response I get

4344. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 21:35:29 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <hn5e92df5ukl0k1ig14s95au1mps02eten@4ax.com>
Source record: 57584

On Mon, 19 Jun 2006 12:01:37 -0700, Roy Lewallen <w7el@eznec.com>
wrote:

>do it. What the U.S. did was to declare the metric system to be official
>("Mission Accomplished!") and change whiskey bottles from fifths to 750
>ml (which was promoted by the booze industry because it made the bottles
>just a little smaller and they could charge the same price). Wow.

Roy, you overlooked that the US, an earlier signup to SI, fixed the
spelling of metre in the US variant of SI.

Owen
--

4345. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 22:16:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <vnFlg.46799$fb2.12378@newssvr27.news.prodigy.net>
Source record: 57587

Tom Donaly wrote:
> Yes, and I've heard of Thales of Miletus, too, and both of
> those gentlemen would have agreed with Tom Rauch because both
> knew the value of experimentation and experience.

Virtually everything about clear-sky charged-particle
static is already known. It's just that some people
choose to ignore the laws of physics and remain ignorant
which is their right.
--
73, Cecil http://www.qsl.net/w5dxp

4346. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 22:28:35 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44972513.7000407@fuse.net>
Source record: 57589

Cecil Moore wrote:
> Tom Donaly wrote:
>
>> Anyone who thinks that there is a test that measures "intelligence"
>> isn't smart enough to belong to Mensa.
>
>
> What is measured is IQ (intelligence quotient). The
> field of IQ measurements is approximately as mature
> as the field of radio having been around for more
> than a century.
>
> http://www.us.mensa.org http://www.mensa.org.uk

The application of IQ that MENSA and others use to differentiate themselves from others has been controversial for years. IQ was originally intended as a statistical tool to describe a population of students. There are many measures of intelligence and many IQ tests. Most have been roundly criticized as culturally biased or inappropriately applied.

MENSA is the queen bee of this sort of thing.

4347. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 22:28:59 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <LyFlg.69551$4L1.2176@newssvr11.news.prodigy.com>
Source record: 57588

Dave wrote:
> Jim Kelley wrote:
>
>>
>>
>> Tom Donaly wrote:
>>
>>
>>> Where's the experimental evidence, Cecil?
>>
>>
>>
>> Ever heard of Ben Franklin? :-)
>>
>> 73, ac6xg
>>
>
> Every winter here in New England we run numerous experiments, every time
> I walk across the living room and touch a metal door knob.
>
> The US military has an ESD specification of 25 KV @ 5 KOhms from a
> healthy capacitor as a simulator.
>
> Electro static discharge on antennas has been around for years. It is real!
>
> Dry Climate and Wind are all that's needed. Now, is the Physics at the
> air molecule level [Oxygen, Nitrogen, etc.], ionized Oxygen or Nitrogen
> atoms, charged dust particle level [that just begs the issue ... how did
> the dust get charged?], Van De Graff level, etc.? Who knows?
>
> But, the antenna ESD is a very REAL effect. You can hypothesize the
> cause all day. To solve the problem at the system level, I added an ESD
> bleed into my antenna switches.
>
> I'm going to filter this thread to the circular file.
>

No one said ESD didn't exist. But you hit the nail on the head so far
as wind caused ESD, "Who knows?" I don't, and neither does Cecil,
although he thinks he does.
73,
Tom Donaly, KA6RUH

4348. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 22:46:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7PFlg.46811$fb2.28268@newssvr27.news.prodigy.net>
Source record: 57590

Dave wrote:
> Electro static discharge on antennas has been around for years. It is real!

Here's some interesting quotes from:

http://www.esda.org/basics/part1.cfm

"Virtually all materials, including water and dirt particles in the air,
can be triboelectrically charged."

"When a conductive material becomes charged, the charge (i.e., the
deficiency or excess of electrons) will be uniformly distributed across
the surface of the material. If the charged conductive material makes
contact with another conductive material, the electrons will transfer
between the materials quite easily. If the second conductor is attached
to an earth grounding point, the electrons will flow to ground and the
excess charge on the conductor will be "neutralized."

"Electrostatic charge can be created triboelectrically on conductors the
same way it is created on insulators. As long as the conductor is
isolated from other conductors or ground, the static charge will remain
on the conductor. If the conductor is grounded the charge will easily go
to ground. Or, if the charged conductor contacts or nears another
conductor, the charge will flow between the two conductors."
--
73, Cecil http://www.qsl.net/w5dxp

4349. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 23:00:52 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <E0Glg.46819$fb2.16858@newssvr27.news.prodigy.net>
Source record: 57591

Tom Donaly wrote:
> No one said ESD didn't exist. But you hit the nail on the head so far
> as wind caused ESD, "Who knows?" I don't, and neither does Cecil,
> although he thinks he does.

You are free to alleviate your ignorance by reading the same
technical material that I have read or continue your present
path and choose to remain ignorant.

For instance, seems to me the Electrostatic Discharge Association
knows something about charged particles that you don't know.

http://www.esda.org/basics/part1.cfm

"Creating electrostatic charge by contact and separation of
materials is known as "triboelectric charging."

"Virtually all materials, *including water and dirt particles
in the air*, can be triboelectrically charged."

Seems the Electrostatic Discharge Association is in complete
agreement with the 2000 ARRL Handbook:

"Precipitation static is an almost continuous hash-type noise
that often accompanies various kinds of precipitation, including
snowfall. Precipitation static is caused by rain drops, snowflakes
or even *wind-blown dust*, transferring a small electrical charge
on contact with an antenna."
--
73, Cecil http://www.qsl.net/w5dxp

4350. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 23:11:43 UTC
From: Big Endian <nospam@nospam.com>
Message-ID: <nospam-C4BC5B.18111319062006@news-rdr-03.rdc-kc.rr.com>
Source record: 57592

In article <7PFlg.46811$fb2.28268@newssvr27.news.prodigy.net>,
Cecil Moore <mycall@hotmail.com> wrote:

> Dave wrote:
> > Electro static discharge on antennas has been around for years. It is real!
>
> Here's some interesting quotes from:
>
> http://www.esda.org/basics/part1.cfm
>
> "Virtually all materials, including water and dirt particles in the air,
> can be triboelectrically charged."
>
> "When a conductive material becomes charged, the charge (i.e., the
> deficiency or excess of electrons) will be uniformly distributed across
> the surface of the material. If the charged conductive material makes
> contact with another conductive material, the electrons will transfer
> between the materials quite easily. If the second conductor is attached
> to an earth grounding point, the electrons will flow to ground and the
> excess charge on the conductor will be "neutralized."
>
> "Electrostatic charge can be created triboelectrically on conductors the
> same way it is created on insulators. As long as the conductor is
> isolated from other conductors or ground, the static charge will remain
> on the conductor. If the conductor is grounded the charge will easily go
> to ground. Or, if the charged conductor contacts or nears another
> conductor, the charge will flow between the two conductors."

some old grain elevators have blown up because of static charge.

Grain has power and is electric, at times.

Moral: Eat more grain.

4351. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 23:14:18 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <AdGlg.57$Kd1.9@fe08.lga>
Source record: 57593

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote
>
> Where's the experimental evidence, Cecil? You and Yuri don't have
> any because you're too afraid to get your hands dirty. Insulting
> Tom isn't going to help any, either, nor is intellectual
> weaseling and selective quotations from dubious sources.
> 73,
> Tom Donaly, KA6RUH

You got it slightly wrong.
We mostly relate cases based on our experiments, which are repeatable and unbelievers could easily duplicate them and see with their own eyes/ears/whatever instead of "theorizing" here why "it can't be".
On insulting Tom, why don't you look up the threads and see who is insulting first, pontificating and parading his "theories" on the web pages and if questioned or debunked, takes of after wives, brings Dr. Phil, etc..
Interesting that bunch of baloney on his web site gets pass and is proclaimed as gospel by his worshippers, while debunking gets attacked and smacked with personal comments about .... Are you drinking the same Koolaid?
Shield is the antenna, riiiiight! Current along the loading coil is always the same, riiiight!

73 Yuri da BUm

4352. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 23:22:11 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449731e2$0$14626$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57594

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:LyFlg.69551$4L1.2176@newssvr11.news.prodigy.com...
> Dave wrote:
> > Jim Kelley wrote:
> >
> >>
> >>
> >> Tom Donaly wrote:
> >>
> >>
>>> Where's the experimental evidence, Cecil?
> >>
> >>
> >>
>> Ever heard of Ben Franklin? :-)
> >>
>> 73, ac6xg
> >>
> >
> > Every winter here in New England we run numerous experiments, every time
> > I walk across the living room and touch a metal door knob.
> >
> > The US military has an ESD specification of 25 KV @ 5 KOhms from a
> > healthy capacitor as a simulator.
> >
> > Electro static discharge on antennas has been around for years. It is
real!
> >
> > Dry Climate and Wind are all that's needed. Now, is the Physics at the
> > air molecule level [Oxygen, Nitrogen, etc.], ionized Oxygen or Nitrogen
> > atoms, charged dust particle level [that just begs the issue ... how did
> > the dust get charged?], Van De Graff level, etc.? Who knows?
> >
> > But, the antenna ESD is a very REAL effect. You can hypothesize the
> > cause all day. To solve the problem at the system level, I added an ESD
> > bleed into my antenna switches.
> >
> > I'm going to filter this thread to the circular file.
> >
>
> No one said ESD didn't exist. But you hit the nail on the head so far
> as wind caused ESD, "Who knows?" I don't, and neither does Cecil,
> although he thinks he does.
> 73,

> Tom Donaly, KA6RUH

i thought it came from distant thunderstorms?

and if wind blows an ELF system around, it does get noisier. i believe that's due to physical movement of the antenna system.

Gravity

4353. 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 23:25:31 UTC
From: Rob Roschewsk <nospam@nospam.com>
Message-ID: <L5udnebjnJfxrwrZnZ2dnUVZ_qmdnZ2d@comcast.com>
Source record: 57595

Hi gang,
I'm trying to think of a new antenna for 20 Meters. Had a thought of a 5/8 wave vertical up the side of the house. My calculations tell me this would be about 41+ feet. Couple of questions:

- is this a good idea?
- can I do it without radials, I'm thinking ground stake, inductor, 41 feet of wire straight up, tapping the inductor at the 50 ohm point with coax.
- I attempted to model this in NEC2 and for 5/8 at 20M I'm getting an impeadance at the base at about 7.4613E+01-4.3625E+04j. Does that seem likely or is my model broken?

Looking forward to what you all think.

Thanks,

--> Rob

4354. Re: BNC power capacity

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 23:36:27 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <%xGlg.57830$9c6.27350@dukeread11>
Source record: 57596

nospam@nouce.bellatlantic.net wrote:
> On Mon, 19 Jun 2006 13:17:42 -0500, Chris W <1qazse4@cox.net> wrote:
>
>
>>nospam@nouce.bellatlantic.net wrote:
>>
>>>On Mon, 19 Jun 2006 12:11:07 -0500, "Ken Bessler"
>>><kg0wx@NOSPAMyahoo.com> wrote:
>>>
>>>
>>>
>>>>How much power can a BNC handle? rg58 coax, 1.3:1 swr,
>>>>say, 54mhz, indoor connection. I'm using a BNC jumper between
>>>>my amp and my antenna switch. I use BNC so I can d/c quickly
>>>>when a t-storm comes in the area.
>>>
>>>
>>>Comfortable at 100W, I doubt more would be reasonable.
>>>
>>>Allison
>>
>>
>>I don't know that answer either but I'm sure it is higher than that. I
>>have seen coaxial relays with SMA connectors that can handle 400 watts
>>at a higher frequency than 50 Mhz. Also get an N connector and a BNC
>>connector and do a close comparison of the pin and the shield inside the
>>connector. They look pretty close. In fact an N male will connect to a
>>BNC female, just no way to hold them together. The other way around
>>doesn't work because the BNC retention housing gets in the way.
>
>
> And how much power can RG58 take?

Now that is something I can answer. Or at least I have found charts
that give me values for that. Assuming you can trust them, rg-58 can
handle 300 watts at 50 Mhz and 160 watts at 150 Mhz. Times microwave
equivalent LMR-190 says it can handle 680 watts at 50 Mhz and 390 at 150
Mhz. It also has the following foot not on those power ratings, "Power:
VSWR=1.0; Ambient = +40ï¿½C; Inner Conductor = 100ï¿½C (212ï¿½F);
Sea Level; dry air; atmospheric pressure; no solar loading"

I have yet to find anything that tells how much power a BNC connector
can take though. I found one that gave it a voltage rating of 500V and
a current rating of 3.5A DC. If you use Ohms law 500V at 50 ohms would
be 10 amps which gives 5,000 watts, I seriously doubt it can really

handle that. That calculation probably didn't help any. If you take the 3.5A with 50 ohms you get 175 V and 612.5 watts. However that 3.5A was DC and generally it is easier to carry the same number of amps with AC, but not sure how that changes as the frequency goes way up.

In the end I still don't know how much power it can handle, but I still think it is well over 100 watts. If I were using the LMR cable (which I do) I would probably trust it up to 300 watts at 50 Mhz. With the RG-58 unless my VSWR were perfect and or the ambient temperature were pretty low, I would probably keep it down to 200 watts.

--
Chris W
KE5GIX

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4355. Re: ULF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-19 23:52:09 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <LqSdndG3bq9NqwrZnZ2dnUVZ_oOdnZ2d@adelphia.com>
Source record: 57597

Tom Donaly wrote:

> "Detecting Natural Electromagnetic Waves," The Amateur Scientist, Shawn
> Carlson, Scientific American, May, 1996. 50,000 turns #30 wire on 1/2
> inch rebar, 2 feet long. You'll have to make your own amplifier and low
> pass filter.

Rebar has a horrible B-H curve, and low permeability. You would do
better with a length of black iron pipe that you annealed after you
sawed a slit in it, lengthwise, to reduce eddy current losses.

4356. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 00:16:18 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <m7Hlg.46867$fb2.29942@newssvr27.news.prodigy.net>
Source record: 57598

Rob Roschewsk wrote:
> - can I do it without radials,

Certainly you can do it without radials but you won't
like the results. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4357. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 00:35:37 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <129egmv2dvvpa10@corp.supernews.com>
Source record: 57599

gravity wrote:
> "BILL GRIESCH -K2WDG" <K2WDG@K2WDG.COM> wrote in message
> news:9tzlg.24$JV6.20@fe11.lga...
>
>>wondering if someone can provide me with the length or the plans of a
>>6m dipole.. i have 6m's but i dont have the room to put up a full blowen
>>ant i think that a dipole would work fo me
>>
>>please email at k2wdg@k2wdg with any information
>>
>>thanks in advance
>>
>>bill k2wdgh
>
>
> the general rule is L = 234/F, where F is the frequency in megahertz, and L
> is the length of a quarter wave element in feet.
>
> this is a strange troll, can't you come up with something better?
>
> Gravity
>
>
The formula, which I learned as a novice, I think, is length is=468/f(in
mHz)

4358. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 00:36:17 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44974340$0$16357$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57600

"Rob Roschewsk" <nospam@nospam.com> wrote in message
news:L5udnebjnJfxrwrZnZ2dnUVZ_qmdnZ2d@comcast.com...
> Hi gang,
> I'm trying to think of a new antenna for 20 Meters. Had a thought of a
> 5/8 wave vertical up the side of the house. My calculations tell me this
> would be about 41+ feet. Couple of questions:
>
> - is this a good idea?
> - can I do it without radials, I'm thinking ground stake, inductor, 41
> feet of wire straight up, tapping the inductor at the 50 ohm point with
> coax.
> - I attempted to model this in NEC2 and for 5/8 at 20M I'm getting an
> impeadance at the base at about 7.4613E+01-4.3625E+04j. Does that seem
> likely or is my model broken?
>
> Looking forward to what you all think.
>

i've only made one 5/8 wave. i hear a cap works well since the antenna is
overlength and thus inductive.

you need radials too. my 5/8 wave didn't do too good, i suspect too many
trees, and not enough radials.

Gravity

> Thanks,
>
> --> Rob
>

4359. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 00:52:08 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <449746b8$0$6141$39cecf19@news.twtelecom.net>
Source record: 57601

Yuri Blanarovich wrote:

>
> You got it slightly wrong.
> We mostly relate cases based on our experiments, which are repeatable and
> unbelievers could easily duplicate them and see with their own
> eyes/ears/whatever instead of "theorizing" here why "it can't be".
> On insulting Tom, why don't you look up the threads and see who is insulting
> first, pontificating and parading his "theories" on the web pages and if
> questioned or debunked, takes of after wives, brings Dr. Phil, etc..
> Interesting that bunch of baloney on his web site gets pass and is
> proclaimed as gospel by his worshippers, while debunking gets attacked and
> smacked with personal comments about .... Are you drinking the same Koolaid?
> Shield is the antenna, riiiiight! Current along the loading coil is always
> the same, riiiight!
>
> 73 Yuri da BUm
>
>

PLONK!

And I've never plonked anyone else here before. You are very special.

tom
K0TAR

4360. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 00:54:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <cHHlg.46874$fb2.19363@newssvr27.news.prodigy.net>
Source record: 57602

Yuri Blanarovich wrote:
> We mostly relate cases based on our experiments, which are repeatable and
> unbelievers could easily duplicate them and see with their own
> eyes/ears/whatever instead of "theorizing" here why "it can't be".

http://www.esda.org/basics/part1.cfm

I'm beginning to believe that anyone who is incapable of
understanding the considerable body of human knowledge
concerning the physics of electrostatic discharge, which
includes charged particles in the air around us, is
simply suffering from an inadequate IQ level. I won't
mention any names but would you agree that those emperors
have no clothes. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4361. Re: ULF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 00:56:58 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <uJHlg.119461$dW3.52863@newssvr21.news.prodigy.com>
Source record: 57603

John Popelish wrote:
> Tom Donaly wrote:
>
>> "Detecting Natural Electromagnetic Waves," The Amateur Scientist,
>> Shawn Carlson, Scientific American, May, 1996. 50,000 turns #30 wire
>> on 1/2 inch rebar, 2 feet long. You'll have to make your own amplifier
>> and low
>> pass filter.
>
>
> Rebar has a horrible B-H curve, and low permeability. You would do
> better with a length of black iron pipe that you annealed after you
> sawed a slit in it, lengthwise, to reduce eddy current losses.

It's what Shawn Carlson used. He also used mu metal which he got from
Scientific Alloys in R.I. Much better, but pricey.
73,
Tom Donaly, KA6RUH

4362. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 01:05:03 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <6ntjm3-o6t.ln1@mail.specsol.com>
Source record: 57604
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

In rec.radio.amateur.antenna Earl the pearl <earlpearl@florida.news> wrote:
> In article <aj3jm3-nej.ln1@mail.specsol.com>, jimp@specsol.spam.sux.com wrote:
> >In rec.radio.amateur.antenna Earl the pearl <earlpearl@florida.news> wrote:
> >> Dear Mr President:
> >>
> >> The FCC has been dumbing down ham radio for several years now. This has
> >> hurt the integrity of the service and is bad for America. They are
> >> planning to dumb it down again really soon now and their plan will make
> >> ham radio like CB and it will be bad for America. We already have one CB
> >> service on HF, we don't need two. Please pressure the FCC to endorse the
> >> following items for the good of the service and America. I wish you could
> >> run again for a third term, I would vote for you. I'm glad Al Gore wasn't
> >> able to steal the election, and John Kerry would have been a disaster, he'd
> >> be kissing terrorist butts and brown nosing them. Thanks for the fine
> >> job you're doing protecting and leading America.
> >>
> >> Signed
> >> (Your name & callsign)
> >>
> >>
> >> No more automatic renewals. Individuals must retest and pass all elements
> >> required for their license class.
> >>
> >> The passing score for written exams needs to be raised to 85%.
> >>
> >> Code elements should be 13 wpm for General, and 20 wpm for Extra.
> >>
> >> Make the no-code license one year non-renewable.
> >>
> >I'm sure this very erudite letter, full of specific facts and the
> >results of many studies to prove it's point will immediately cause
> >the President to put aside all petty concerns (like the Middle East,
> >energy problems, changes in Medicare, investigations of members
> >of his party and staff, Iran's nuclear program, North Korea's ICBM
> >test, etc.) and order the FCC to get rid of all no code Hams.

> Email anyway, it can't hurt. The integrity of the service is at stake.

> When the bands head further into the shitter, we can say we at least tried to
> save the hobby.

> Earl

Someone for whom satire is an unknown.

Having been licensed for over 40 years, all I can say is you people need to get over your sense of self importance.

Yeah! Bring back spark!

--
Jim Pennino

Remove .spam.sux to reply.

4363. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 01:06:50 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <KSHlg.119464$dW3.70845@newssvr21.news.prodigy.com>
Source record: 57605

gravity wrote:

> "Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
> news:LyFlg.69551$4L1.2176@newssvr11.news.prodigy.com...
>
>>Dave wrote:
>>
>>>Jim Kelley wrote:
>>>
>>>
>>>>
>>>>Tom Donaly wrote:
>>>>
>>>>
>>>>
>>>>>Where's the experimental evidence, Cecil?
>>>>
>>>>
>>>>
>>>>Ever heard of Ben Franklin? :-)
>>>>
>>>>73, ac6xg
>>>>
>>>
>>>Every winter here in New England we run numerous experiments, every time
>>>I walk across the living room and touch a metal door knob.
>>>
>>>The US military has an ESD specification of 25 KV @ 5 KOhms from a
>>>healthy capacitor as a simulator.
>>>
>>>Electro static discharge on antennas has been around for years. It is
>
> real!
>
>>>Dry Climate and Wind are all that's needed. Now, is the Physics at the
>>>air molecule level [Oxygen, Nitrogen, etc.], ionized Oxygen or Nitrogen
>>>atoms, charged dust particle level [that just begs the issue ... how did
>>>the dust get charged?], Van De Graff level, etc.? Who knows?
>>>
>>>But, the antenna ESD is a very REAL effect. You can hypothesize the
>>>cause all day. To solve the problem at the system level, I added an ESD
>>>bleed into my antenna switches.
>>>
>>>I'm going to filter this thread to the circular file.

>>>
>>
>>No one said ESD didn't exist. But you hit the nail on the head so far
>>as wind caused ESD, "Who knows?" I don't, and neither does Cecil,
>>although he thinks he does.
>>73,
>>Tom Donaly, KA6RUH
>
>
> i thought it came from distant thunderstorms?
>
> and if wind blows an ELF system around, it does get noisier. i believe
> that's due to physical movement of the antenna system.
>
> Gravity
>
>

You could be right, who knows? Certainly not the people who
are afraid to experiment.
73,
Tom Donaly, KA6RUH

4364. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 01:10:54 UTC
From: WB2YIP <charliecomerford@verizon.net>
Message-ID: <1150765854.073691.23260@y41g2000cwy.googlegroups.com>
Source record: 57606

BILL GRIESCH -K2WDG wrote:
> wondering if someone can provide me with the length or the plans of a
> 6m dipole.. i have 6m's but i dont have the room to put up a full blowen
> ant i think that a dipole would work fo me
>
> please email at k2wdg@k2wdg with any information
>
> thanks in advance
>
> bill k2wdgh

Boy, that's a tough question! Wonder why you bothered to post - would think a ham could calculate that one - additionally, its so simple to calculate or to find the length on the Internet these days, probably took you longer to type the question...boy, makes ya wonder...remember when?

4365. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 01:12:40 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <cYHlg.46877$fb2.37114@newssvr27.news.prodigy.net>
Source record: 57607

Cecil Moore wrote:

> Dave wrote:
>
>> Electro static discharge on antennas has been around for years. It is
>> real!
>
>
> Here's some interesting quotes from:
>
> http://www.esda.org/basics/part1.cfm
>
> "Virtually all materials, including water and dirt particles in the air,
> can be triboelectrically charged."
>
> "When a conductive material becomes charged, the charge (i.e., the
> deficiency or excess of electrons) will be uniformly distributed across
> the surface of the material. If the charged conductive material makes
> contact with another conductive material, the electrons will transfer
> between the materials quite easily. If the second conductor is attached
> to an earth grounding point, the electrons will flow to ground and the
> excess charge on the conductor will be "neutralized."
>
> "Electrostatic charge can be created triboelectrically on conductors the
> same way it is created on insulators. As long as the conductor is
> isolated from other conductors or ground, the static charge will remain
> on the conductor. If the conductor is grounded the charge will easily go
> to ground. Or, if the charged conductor contacts or nears another
> conductor, the charge will flow between the two conductors."

So, you've discovered the triboelectric effect. You're now up to
Thales of Miletus.
73,
Tom Donaly, KA6RUH

4366. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 01:39:32 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <129ekcdilceonb8@corp.supernews.com>
Source record: 57608

Dear Howard W3CQH:
You have not been clear about what information you need. What do you
wish to accomplish?

Here is Section 207:

Telecommunications Act of 1996

SEC. 207. RESTRICTIONS ON OVER-THE-AIR RECEPTION DEVICES.
Within 180 days after the date of enactment of this Act, the
Commission shall, pursuant to section 303 of the Communications
Act
of 1934, promulgate regulations to prohibit restrictions that
impair a viewer's ability to receive video programming services
through devices designed for over-the-air reception of television
broadcast signals, multichannel multipoint distribution service,
or
direct broadcast satellite services.

It sure is not clear what this has to do with what you have said so far.

..... and, in "real" engineering: Kg is the unit of mass in the SI mks
system. Newton is the unit of force. F does equal MA (at least for low
velocities).

73 Mac, N8TT
--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net
"Howard W3CQH" <hgorden@adelphia.net> wrote in message
news:E9ydnYblkdLUmArZnZ2dnUVZ_qCdnZ2d@adelphia.com...
> Thanks to all that have answered my original post - but the information
that
> I seek has not been answered.
>
> I understand that section 207 of the FCC telecomm act 1996 contains
> information that I might be able to use to help me in this matter. Where
> can I obtain a copy of Section 207? I cannot find it posted on the FCC
> website!
>
> Thanks,
>
>
>
> "Howard W3CQH" <hgorden@adelphia.net> wrote in message
> news:DvmdnX0ALIEzxQnZnZ2dnUVZ_rmdnZ2d@adelphia.com...

> > Looking for specs on any log periodic antenna that covers 50Mhz -
1300Mhz,
> > (Ham variety). Specs must also contain that it can withstand 80MPH wind
> > and 30 Lbs of ICE?
> >
> > Thanks and best DXin.
> >
> > de Howard W3CQH
> >
> >
> >
>
>

4367. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 01:41:21 UTC
From: richardharrison@webtv.net
Message-ID: <25667-44975241-873@storefull-3251.bay.webtv.net>
Source record: 57609

Tom Donaly wrote:
"There`s no such thing as a clear-skycharged-particle problem, either in the Arizona desert or anywhere else."

I believe there is from countless observations at AM broadcast stations I`ve worked in over a period of many years.

The insulators used to break up the guy-wires flash over with "bangs" on certain clear windy days. This might be no problem except it becomes so severe at times that it overloads the transmitter, taking it off the air momentarily.

Flash-overs of the guy insulators occurs in S.E. Texas where the humidity is often very high by most standards. Each guy has many insulators in its length and double insulators at the guy attachment point to the tower.

Best regards, Richard Harrison, KB5WZI

4368. Re: ULF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 02:11:43 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4497599f$0$14238$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57610

"Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
news:uJHlg.119461$dW3.52863@newssvr21.news.prodigy.com...
> John Popelish wrote:
> > Tom Donaly wrote:
> >
> >> "Detecting Natural Electromagnetic Waves," The Amateur Scientist,
> >> Shawn Carlson, Scientific American, May, 1996. 50,000 turns #30 wire
> >> on 1/2 inch rebar, 2 feet long. You'll have to make your own amplifier
> >> and low
> >> pass filter.
> >
> >
> > Rebar has a horrible B-H curve, and low permeability. You would do
> > better with a length of black iron pipe that you annealed after you
> > sawed a slit in it, lengthwise, to reduce eddy current losses.
>
> It's what Shawn Carlson used. He also used mu metal which he got from
> Scientific Alloys in R.I. Much better, but pricey.

it's my understanding that you can use steel because the frequencies are
very low. however, i plan to research this further.

one thing i'm not clear on is coil diameter and air core. every dollar
spent on a metal core could be utilized for more turns for the antenna. and
i'm not sure if a big coil would have better aperture and gain than a small
diameter.

one thing i'm noticing is that there are basically two types of antennas.
one type is built by amateurs and is basically guesswork or based on prior
designs. the other type is built by professionals, often doing research in
earthquakes.

Gravity

> 73,
> Tom Donaly, KA6RUH

4369. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 02:53:54 UTC
From: Telamon <telamon_spamshield@pacbell.net.is.invalid>
Message-ID: <telamon_spamshield-52B3F0.19535419062006@newsclstr02.news.prodigy.com>
Source record: 57612
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

In article <sdoijfs-slkdfn-sdjfn@miami.fl.net>,
earlpearl@florida.news (Earl the pearl) wrote:

> Dear Mr President:
>
< Snip >

Please do not post amateur issues to rec.radio.shortwave

--
Telamon
Ventura, California

4370. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 02:54:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <krJlg.119480$dW3.45680@newssvr21.news.prodigy.com>
Source record: 57613

Tom Donaly wrote:
> You could be right, who knows? Certainly not the people who
> are afraid to experiment.

Why re-invent the wheel when all you have to do is read
this web page from the Electrostatic Discharge Association
to know what is old hat to most competent engineers?

http://www.esda.org/basics/part1.cfm
--
73, Cecil http://www.qsl.net/w5dxp

4371. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 02:55:26 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ysJlg.119481$dW3.111839@newssvr21.news.prodigy.com>
Source record: 57614

Tom Donaly wrote:
> So, you've discovered the triboelectric effect.

Sorry, it was discovered before I was born.
--
73, Cecil http://www.qsl.net/w5dxp

4372. Re: ULF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 02:57:35 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <ufqdncTuvv_b_wrZnZ2dnUVZ_rqdnZ2d@adelphia.com>
Source record: 57611

gravity wrote:

> one thing i'm not clear on is coil diameter and air core. every dollar
> spent on a metal core could be utilized for more turns for the antenna. and
> i'm not sure if a big coil would have better aperture and gain than a small
> diameter.
>
> one thing i'm noticing is that there are basically two types of antennas.
> one type is built by amateurs and is basically guesswork or based on prior
> designs. the other type is built by professionals, often doing research in
> earthquakes.

A high permeability rod intercepts flux from a volume of space a
little less than a sphere with a diameter equal to the rod length. An
air core (short length to diameter ratio) coil intercepts flux from a
volume of space a bit larger than a sphere with a diameter equal to
the diameter of the coil. The air core coil has the advantage of
being relatively light and cheap. The iron core rod takes up a little
less space, and allows the coil to be electro statically shielded a
lot easier. It also produces the the same inductance with a much
shorter length of wire, so, for the same gauge wire, the coil
resistance is lower. With good winding technique, I think the stray
capacitance can also be lower. If the coil is wound on a tube, you
can also try different cores with little effort.

4373. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 03:00:26 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <exJlg.119484$dW3.66536@newssvr21.news.prodigy.com>
Source record: 57615

Richard Harrison wrote:
> Flash-overs of the guy insulators occurs in S.E. Texas where the
> humidity is often very high by most standards.

http://www.esda.org/basics/part1.cfm

Take a look at Table 2 where humidity is taken into account.
The static voltages at low relative humidity are magnitudes
higher than the voltages at high relative humidity. It certainly
can happen at high humidity but low humidity makes the problem
magnitudes worse.
--
73, Cecil http://www.qsl.net/w5dxp

4374. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 03:12:50 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <SIJlg.2628$DI2.1221@trnddc05>
Source record: 57616

>
> i've only made one 5/8 wave. i hear a cap works well since the antenna is
> overlength and thus inductive.
>
The antenna is short of a 3/4 wave and therefore capacitive, not inductive.
Either a series coil or a grounded tapped coil will work. Radials are a
must.

Dale W4OP

4375. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 03:22:28 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150773747.995169.210670@c74g2000cwc.googlegroups.com>
Source record: 57617
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

jimp@specsol.spam.sux.com wrote:
> In rec.radio.amateur.antenna Earl the pearl <earlpearl@florida.news> wrote:
> > In article <aj3jm3-nej.ln1@mail.specsol.com>, jimp@specsol.spam.sux.com wrote:
> > >In rec.radio.amateur.antenna Earl the pearl <earlpearl@florida.news> wrote:

> > Earl
>
> Someone for whom satire is an unknown.
>
> Having been licensed for over 40 years, all I can say is you people
> need to get over your sense of self importance.
>
> Yeah! Bring back spark!

I wonder if we could not bring in back in limited sense and lwer power
levels with some filters and such
>
> --
> Jim Pennino
>
> Remove .spam.sux to reply.

4376. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 03:55:02 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <rm7km3-mdq.ln1@mail.specsol.com>
Source record: 57618
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

In rec.radio.amateur.antenna Cecil Moore <mycall@hotmail.com> wrote:
> Earl the pearl wrote:
> > I'm glad Al Gore wasn't
> > able to steal the election, and John Kerry would have been a disaster, he'd
> > be kissing terrorist butts and brown nosing them.

> And please, President Bush, don't allow the FCC to issue an
> amateur radio license to illiterates.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Who would be left to post to rec.radio.amateur.policy if all the
babbling idiots were no longer licensed?

--
Jim Pennino

Remove .spam.sux to reply.

4377. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 04:10:27 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <UyKlg.103$lv.33@fed1read12>
Source record: 57619

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Ivxlg.53894$Lm5.21399@newssvr12.news.prodigy.com...
> gravity wrote:
> > perhaps this comment was a bit harsh.
>
> There have been some relatively famous members
> of MENSA. Isaac Asimov comes to mind. He described
> members of MENSA as "intellectually combative".
> --
> 73, Cecil http://www.qsl.net/w5dxp

I worked with a guy who joined Mensa. He only attended a few meetings
before abandoning them. He said they all just tried to impress each other
with how smart they were.

****** Newsgroups replace Mensa -- Film at 11:00 *********

4378. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 04:19:04 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <YGKlg.104$lv.41@fed1read12>
Source record: 57620
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"dxAce" <dxAce@milestones.com> wrote in message
news:44969559.30D72920@milestones.com...

>
> Anybody who can't pass the minimal 5 WPM doesn't deserve a license.

That's needlessly insulting.

4379. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 04:22:00 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <lJKlg.105$lv.102@fed1read12>
Source record: 57621
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"gravity" <gravityzrainbow@yahoo.com> wrote in message news:4496bf14$0$14238

> 5 WPM is easy.

Nonsense.

Tell us you can do it --- tell us your mangy hound dog can do it, but steer clear of the blanket statements. It isn't easy to one who can't do it.

4380. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 04:34:43 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150778083.421289.285200@r2g2000cwb.googlegroups.com>
Source record: 57622
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

```
Sal M. Onella wrote:
> "dxAce" <dxAce@milestones.com> wrote in message
> news:44969559.30D72920@milestones.com...
>
> >
> > Anybody who can't pass the minimal 5 WPM doesn't deserve a license.
>
> That's needlessly insulting.
well the is DX ace for you never be just rude whenyou can be insulting
```

4381. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 04:36:51 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150778211.396495.227720@p79g2000cwp.googlegroups.com>
Source record: 57623
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

jimp@specsol.spam.sux.com wrote:
> In rec.radio.amateur.antenna Cecil Moore <mycall@hotmail.com> wrote:
> > Earl the pearl wrote:
> > > I'm glad Al Gore wasn't
> > > able to steal the election, and John Kerry would have been a disaster, he'd
> > > be kissing terrorist butts and brown nosing them.
>
> > And please, President Bush, don't allow the FCC to issue an
> > amateur radio license to illiterates.
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
>
> Who would be left to post to rec.radio.amateur.policy if all the
> babbling idiots were no longer licensed?
I am sure Wismen would still be here flaming away and dening he lost
his license just like deinies ..well we all know what he denies

BTW the VP's staff got a good laugh out the original post and a few the
choicest replies

of course I includded my own thooughts on what the Fcc should do and wy
in the mix

4382. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 04:50:17 UTC
From: Not@home.now
Message-ID: <e77ur2$ks5$1@news.xmission.com>
Source record: 57624
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

```
In article <6ntjm3-o6t.ln1@mail.specsol.com>, jimp@specsol.spam.sux.com wrote:
>In rec.radio.amateur.antenna Earl the pearl <earlpearl@florida.news> wrote:
>> In article <aj3jm3-nej.ln1@mail.specsol.com>, jimp@specsol.spam.sux.com
> wrote:
>> >In rec.radio.amateur.antenna Earl the pearl <earlpearl@florida.news> wrote:
>> >> Dear Mr President:
>> >
>> >> The FCC has been dumbing down ham radio for several years now. This has
>> >> hurt the integrity of the service and is bad for America. They are
>> >> planning to dumb it down again really soon now and their plan will make
>> >> ham radio like CB and it will be bad for America. We already have one CB
>> >> service on HF, we don't need two. Please pressure the FCC to endorse the
>> >> following items for the good of the service and America. I wish you could
>> >> run again for a third term, I would vote for you. I'm glad Al Gore wasn't
>> >> able to steal the election, and John Kerry would have been a disaster,
> he'd
>> >> be kissing terrorist butts and brown nosing them. Thanks for the fine
>> >> job you're doing protecting and leading America.
>> >
>> >> Signed
>> >> (Your name & callsign)
>> >
>> >
>> >> No more automatic renewals. Individuals must retest and pass all elements
>> >> required for their license class.
>> >
>> >> The passing score for written exams needs to be raised to 85%.
>> >
>> >> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>> >
>> >> Make the no-code license one year non-renewable.
>> >
>> >I'm sure this very erudite letter, full of specific facts and the
>> >results of many studies to prove it's point will immediately cause
>> >the President to put aside all petty concerns (like the Middle East,
>> >energy problems, changes in Medicare, investigations of members
>> >of his party and staff, Iran's nuclear program, North Korea's ICBM
>> >test, etc.) and order the FCC to get rid of all no code Hams.
>
>
>> Email anyway, it can't hurt. The integrity of the service is at stake.
>
>> When the bands head further into the shitter, we can say we at least tried to
```

>
>> save the hobby.
>
>> Earl
>
>Someone for whom satire is an unknown.
>
>Having been licensed for over 40 years, all I can say is you people
>need to get over your sense of self importance.
>
>Yeah! Bring back spark!
>
I am not a HAM but my brother is. The main reason they came up with the idea of
the no code license was to spark interest in Amateur Radio. The hobbie is
getting to be near extinct in the 21st century compared to the interest of the
1950's to 2000.

4383. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 06:10:03 UTC
From: Buck <not@this.time>
Message-ID: <084f92db31l2g9prrnf9a48dkg5pnpc3f0@4ax.com>
Source record: 57625

On Mon, 19 Jun 2006 19:35:37 -0500, Butch Magee <lynyrd@cableone.net>
wrote:

>gravity wrote:

>> the general rule is L = 234/F, where F is the frequency in megahertz, and L
>> is the length of a quarter wave element in feet.
>>
>> this is a strange troll, can't you come up with something better?
>>
>> Gravity
>>
>>
>The formula, which I learned as a novice, I think, is length is=468/f(in
>mHz)

Read the text carefully, he is talking about each of the two 1/4 wave
elements that make up a half wave dipole.

BTW, what is 468/2 ???
--
73 for now
Buck
N4PGW

4384. Re: Log Peridic 50m - 1300m

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 06:11:41 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <xkMlg.57846$9c6.36578@dukeread11>
Source record: 57526

gravity wrote:

>
> please read the NIST publications which define the Avoirdupois pound in
> terms of kilograms. this is not debateable since NIST is *the* authority in
> the US.

The NIST isn't the authority on the laws of physics. One of the most
basic of which is F=MA, if you use pounds for mass in that formula you
get the wrong answer. Nothing that NIST says will change that.

200 lbs = 6.25 slugs * 32 ft/sec^2. Using pounds, the formula won't
work any other way.

--
Chris W
KE5GIX

Gift Giving Made Easy
Get the gifts you want &
give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

4385. Re: BNC power capacity

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 07:12:59 UTC
From: Jeff <jeff@local.host>
Message-ID: <e786u1$j8k$1@nntp.aioe.org>
Source record: 57527

>
> I have yet to find anything that tells how much power a BNC connector can
> take though. I found one that gave it a voltage rating of 500V and a
> current rating of 3.5A DC. If you use Ohms law 500V at 50 ohms would be
> 10 amps which gives 5,000 watts, I seriously doubt it can really handle
> that. That calculation probably didn't help any. If you take the 3.5A
> with 50 ohms you get 175 V and 612.5 watts. However that 3.5A was DC and
> generally it is easier to carry the same number of amps with AC, but not
> sure how that changes as the frequency goes way up.

I have certainly used TNC's at 1300MHz at over 1kW pulsed, in military applications, so breakdown is not the problem!!

73
Jeff

4386. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 09:18:00 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1150795080.313002.276380@b68g2000cwa.googlegroups.com>
Source record: 57528
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

Telamon - Now be nice or you may get paddled (CW :o) ~ RHF
.
.
. .

Telamon wrote:
> In article <sdoijfs-slkdfn-sdjfn@miami.fl.net>,
> earlpearl@florida.news (Earl the pearl) wrote:
>
> > Dear Mr President:
> >
> < Snip >
>
> Please do not post amateur issues to rec.radio.shortwave
>
> --
> Telamon
> Ventura, California

4387. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 09:23:16 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1150795396.623646.19870@y41g2000cwy.googlegroups.com>
Source record: 57529
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

ETP,

Did you ever think that there are more CB'ers
then Amateur Radio Operators {Hams} and
that just may be more CB'ers voted for Bush
then the Hams . . .

so that your request may have just the oposite
reaction in the Whitehouse then you might
expect - something to think about ~ RHF
.
.
. .

Earl the pearl wrote:
> Dear Mr President:
>
> The FCC has been dumbing down ham radio for several years now. This has
> hurt the integrity of the service and is bad for America. They are
> planning to dumb it down again really soon now and their plan will make
> ham radio like CB and it will be bad for America. We already have one CB
> service on HF, we don't need two. Please pressure the FCC to endorse the
> following items for the good of the service and America. I wish you could
> run again for a third term, I would vote for you. I'm glad Al Gore wasn't
> able to steal the election, and John Kerry would have been a disaster, he'd
> be kissing terrorist butts and brown nosing them. Thanks for the fine
> job you're doing protecting and leading America.
>
> Signed
> (Your name & callsign)
>
>
> No more automatic renewals. Individuals must retest and pass all elements
> required for their license class.
>
> The passing score for written exams needs to be raised to 85%.
>
> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
> Make the no-code license one year non-renewable.

4388. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 11:36:45 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <B6Kdna96iJ1WQArZnZ2dnUVZ_oCdnZ2d@comcast.com>
Source record: 57530
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

5 WPM is do-able! My 4 1/2 year granddaughter copies 5 wpm! Her 10 year old brother, who learned it in Cub Scouts, taught her. And, she can't even spell yet! But, she knows the alphabet from watching TV.

Some people have DIFFICULTY learning Morse Code, real difficulty!

I have taught Morse Code off and on for 40 years and from total ignorance to 100% success in 8 hours, 2 hours a week for 4 weeks [plus a little home practice. It is practice [work] that makes it successful.]

Some people can learn the code but suffer from "TEST STRESS". They can copy it comfortably in their home or their surroundings; but, when they have to demonstrate that skill in front of a 'WITNESS' who has pass/fail power, they tense up and fail. That's understandable and can be worked with.

Some people are dyslexic. But, they can hear it and talk it out, but can't get it on paper. But, they learned the code.

If you can learn the english alphabet, if you can learn the english language, if you can read this email then you CAN LEARN Morse Code at 5 WPM. You may never progress to 20 wpm [It took me 24 months at 1 hour of practice a day every day to progress from 5 to 20 wpm] but 5 wpm can be learned.

Teaching methods, practice criteria and testing/verification methods become critical for those with difficulty.

/s/ DD, W1MCE

Sal M. Onella wrote:

> "gravity" <gravityzrainbow@yahoo.com> wrote in message news:4496bf14$0$14238
>
>
>>5 WPM is easy.
>
>
> Nonsense.
>
> Tell us you can do it --- tell us your mangy hound dog can do it, but steer
> clear of the blanket statements. It isn't easy to one who can't do it.
>
>

4389. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 11:42:03 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <hJadnTUU2tGVQgrZnZ2dnUVZ_q6dnZ2d@comcast.com>
Source record: 57531
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

I'll top post again for brevity and getting to the point.

I like CW! It is most likely going away as a requirement. I'm sad at this.

Amateur radio will change as a result. Everything changes. Hopefully the changes will be positive.

Dave wrote:

> 5 WPM is do-able! My 4 1/2 year granddaughter copies 5 wpm! Her 10 year
> old brother, who learned it in Cub Scouts, taught her. And, she can't
> even spell yet! But, she knows the alphabet from watching TV.
>
> Some people have DIFFICULTY learning Morse Code, real difficulty!

MAJOR SNIPPING from here down.

4390. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 11:52:32 UTC
From: Rob Roschewsk <nospam@nospam.com>
Message-ID: <ROSdnSy69cgdfArZnZ2dnUVZ_s2dnZ2d@comcast.com>
Source record: 57532

Thanks to all for the feedback.

So I'm guessing radial are a must for any vertical.

If I want something made of wire, and omni directional what would be my
best bet? Inverted-V ?

--> Rob
ka2pbt

Dale Parfitt wrote:
> >
>> i've only made one 5/8 wave. i hear a cap works well since the antenna is
>> overlength and thus inductive.
>>
> The antenna is short of a 3/4 wave and therefore capacitive, not inductive.
> Either a series coil or a grounded tapped coil will work. Radials are a
> must.
>
> Dale W4OP
>
>

4391. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 12:00:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ArRlg.46952$fb2.34383@newssvr27.news.prodigy.net>
Source record: 57533

Sal M. Onella wrote:
> I worked with a guy who joined Mensa. He only attended a few meetings
> before abandoning them. He said they all just tried to impress each other
> with how smart they were.

Sounds a lot like the ARS. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4392. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 12:08:45 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hzRlg.46953$fb2.15860@newssvr27.news.prodigy.net>
Source record: 57534

Rob Roschewsk wrote:
> If I want something made of wire, and omni directional what would be my
> best bet? Inverted-V ?

How about a 1/2WL vertical?
--
73, Cecil http://www.qsl.net/w5dxp

4393. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 12:23:13 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150806193.270229.167310@g10g2000cwb.googlegroups.com>
Source record: 57535
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

RHF wrote:
> ETP,
>
> Did you ever think that there are more CB'ers
> then Amateur Radio Operators {Hams} and
> that just may be more CB'ers voted for Bush
> then the Hams . . .
he doesnot think period afer all what proposes is to kill the ars

4394. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 12:34:21 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150806861.808156.273640@u72g2000cwu.googlegroups.com>
Source record: 57536
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

Dave wrote:
> 5 WPM is do-able! My 4 1/2 year granddaughter copies 5 wpm! Her 10 year old
> brother, who learned it in Cub Scouts, taught her. And, she can't even spell
> yet! But, she knows the alphabet from watching TV.
>
> Some people have DIFFICULTY learning Morse Code, real difficulty!
>
> I have taught Morse Code off and on for 40 years and from total ignorance to
> 100% success in 8 hours, 2 hours a week for 4 weeks [plus a little home
> practice. It is practice [work] that makes it successful.]

bullsshit or I'd would have a noivice license rough 3 decades ago
>
> Some people can learn the code but suffer from "TEST STRESS". They can copy it
> comfortably in their home or their surroundings; but, when they have to
> demonstrate that skill in front of a 'WITNESS' who has pass/fail power, they
> tense up and fail. That's understandable and can be worked with.

never could do it alone with any reliablity either
>
> Some people are dyslexic. But, they can hear it and talk it out, but can't get
> it on paper. But, they learned the code.
some dyslexics can true
>
> If you can learn the english alphabet, if you can learn the english language, if
> you can read this email then you CAN LEARN Morse Code at 5 WPM. You may never
> progress to 20 wpm [It took me 24 months at 1 hour of practice a day every day
> to progress from 5 to 20 wpm] but 5 wpm can be learned.
shove you insistance that you can speak for eveyone where the sun don't
shine
>
> Teaching methods, practice criteria and testing/verification methods become
> critical for those with difficulty.
indeed as do factors like random chance
>
> /s/ DD, W1MCE
now even if you are right why should somebody be made to take this test
after Icould endure 10 lashes in a public sqare too (and thatwould
certainly be easier)

4395. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 12:46:30 UTC
From: JT
Message-ID: <G6Slg.48939$Pl5.19131@fe70.usenetserver.com>
Source record: 57537

your best bet is to build a j pole out of copper tubing and make it
out 3/4 tubing better out put . I run a yaesu ft 726r 5 watts and
talk all over the US. I also us amp but most of the time bare foot.
de w8old look me up on ham call. the freq divided by 462/50.125=9ft
and 1/4"
--

Posted with NewsLeecher v3.0 Final
* Binary Usenet Leeching Made Easy
* http://www.newsleecher.com/?usenet

4396. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:01:55 UTC
From: pltrgyst <pltrgyst@spamlessxhost.org>
Message-ID: <p7sf921alq8bjm4rp0269lvrosks1458tf@4ax.com>
Source record: 57538
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

On Mon, 19 Jun 2006 21:19:04 -0700, "Sal M. Onella"
<salmonella@food.poisoning.org> wrote:

>> Anybody who can't pass the minimal 5 WPM doesn't deserve a license.
>
>That's needlessly insulting.

No, it's a statement of historic fact, as determined by the licensing
authorities. But it's incorrct -- anyone who can't copy 5 wpm deserves a
license, but it's Citizen's Band.

A further valid statement would be that anyone with an IQ approaching 100 can
learn to copy 5 wpm. That's less than one character every two seconds, which
gives tons of time to recognize and write the single character before the next
one begins. Dyslexia cannot apply, unless it is dyslexia that affects the
remembered dot/dash pattern of a single character.

-- Larry

4397. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:08:56 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <ON-dnQnzTf3CbgrZnZ2dnUVZ_tmdnZ2d@comcast.com>
Source record: 57539

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:hzRlg.46953$fb2.15860@newssvr27.news.prodigy.net...
> Rob Roschewsk wrote:
>> If I want something made of wire, and omni directional what would be my
>> best bet? Inverted-V ?
>
> How about a 1/2WL vertical?
> --
> 73, Cecil http://www.qsl.net/w5dxp

Center fed, or end fed with a sleeve.

Tam/WB2TT

4398. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:13:07 UTC
From: kb9rqz_child_molester@yahoo.com
Message-ID: <1150809187.741650.35640@h76g2000cwa.googlegroups.com>
Source record: 57540
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

```
an old friend wrote:
> jawod wrote:
> > markie_morgan_rapesboys@yahoo.com wrote:
>
> > > Get help for your lying.
> > >
> >
> > Why don't you guys get a room?
> why would I want to get a room with him?

Because you are a faggot!
```

4399. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:20:03 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4497f641$0$16281$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57541

"Rob Roschewsk" <nospam@nospam.com> wrote in message
news:ROSdnSy69cgdfArZnZ2dnUVZ_s2dnZ2d@comcast.com...
> Thanks to all for the feedback.
>
> So I'm guessing radial are a must for any vertical.
>
> If I want something made of wire, and omni directional what would be my
> best bet? Inverted-V ?
>

the inverted vee sucks. you might want to read the Cebik article, and make
sure you avoid tight angles.

i used inverted vees for a few years. one was 100', another 130'. they
seemed to have some gain in random angles. they seemed to be an NVIS
antenna on the low bands.

i would recommend a dipole. you will get nulls.

Gravity

> --> Rob
> ka2pbt
>
>
> Dale Parfitt wrote:
> > >
> >> i've only made one 5/8 wave. i hear a cap works well since the antenna
is
> >> overlength and thus inductive.
> >>
> > The antenna is short of a 3/4 wave and therefore capacitive, not
inductive.
> > Either a series coil or a grounded tapped coil will work. Radials are a
> > must.
> >
> > Dale W4OP
> >
> >

4400. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:23:31 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <nFSlg.43633$mF2.17502@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57542

Cecil Moore wrote:
> Tom Donaly wrote:
>> You could be right, who knows? Certainly not the people who
>> are afraid to experiment.
>
> Why re-invent the wheel when all you have to do is read
> this web page from the Electrostatic Discharge Association
> to know what is old hat to most competent engineers?
>
> http://www.esda.org/basics/part1.cfm

Cecil,

Once again you have managed to complete encircle the issue with useless factoids while avoiding the key question.

I doubt that anyone reading RRAA has a problem with understanding static electricity. Similarly, it is unlikely that anyone here will deny that "noise happens."

The question is: What causes the noise, "precipitation static" or "corona"?

You have claimed without any support whatsoever that the air cannot be ionized under your "dry" conditions, and therefore corona cannot exist. At the same time you offer references from the ESDA that show charging of particles up to 20,000 volts or higher.

Do you suppose corona cares whether the air molecules themselves are charged or whether the unbalanced charge is held on these highly electrified dust particles?

73,
Gene
W4SZ

4401. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:24:04 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <UFSlg.101109$H71.45459@newssvr13.news.prodigy.com>
Source record: 57543
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

pltrgyst wrote:
> No, it's a statement of historic fact, as determined by the licensing
> authorities. But it's incorrct -- anyone who can't copy 5 wpm deserves a
> license, but it's Citizen's Band.

Are you saying that hundreds of thousands of no-code
techs didn't deserve an amateur radio license?
--
73, Cecil http://www.qsl.net/w5dxp

4402. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:25:24 UTC
From: kb9rqz_child_molester@yahoo.com
Message-ID: <1150809924.627366.210800@r2g2000cwb.googlegroups.com>
Source record: 57544
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

an_old_friend wrote:
> Dave wrote:
> > 5 WPM is do-able! My 4 1/2 year granddaughter copies 5 wpm! Her 10 year old
> > brother, who learned it in Cub Scouts, taught her. And, she can't even spell
> > yet! But, she knows the alphabet from watching TV.
> >
> > Some people have DIFFICULTY learning Morse Code, real difficulty!
> >
> > I have taught Morse Code off and on for 40 years and from total ignorance to
> > 100% success in 8 hours, 2 hours a week for 4 weeks [plus a little home
> > practice. It is practice [work] that makes it successful.]
>
> bullsshit or I'd would have a noivice license rough 3 decades ago
> >
> > Some people can learn the code but suffer from "TEST STRESS". They can copy it
> > comfortably in their home or their surroundings; but, when they have to
> > demonstrate that skill in front of a 'WITNESS' who has pass/fail power, they
> > tense up and fail. That's understandable and can be worked with.
>
> never could do it alone with any reliablity either
> >
> > Some people are dyslexic. But, they can hear it and talk it out, but can't get
> > it on paper. But, they learned the code.
> some dyslexics can true
> >
> > If you can learn the english alphabet, if you can learn the english language, if
> > you can read this email then you CAN LEARN Morse Code at 5 WPM. You may never
> > progress to 20 wpm [It took me 24 months at 1 hour of practice a day every day
> > to progress from 5 to 20 wpm] but 5 wpm can be learned.
> shove you insistance that you can speak for eveyone where the sun don't
> shine
> >
> > Teaching methods, practice criteria and testing/verification methods become
> > critical for those with difficulty.
> indeed as do factors like random chance
> >
> > /s/ DD, W1MCE
> now even if you are right why should somebody be made to take this test
> after Icould endure 10 lashes in a public sqare too (and thatwould
> certainly be easier)

Poor Markie, so bitter that kids can pass morse code tests and he is
too stupid to pass one.

4403. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:32:07 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4497f915$0$16332$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57545

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:UyKlg.103$lv.33@fed1read12...
>
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:Ivxlg.53894$Lm5.21399@newssvr12.news.prodigy.com...
> > gravity wrote:
> > > perhaps this comment was a bit harsh.
> >
> > There have been some relatively famous members
> > of MENSA. Isaac Asimov comes to mind. He described
> > members of MENSA as "intellectually combative".
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
>
> I worked with a guy who joined Mensa. He only attended a few meetings
> before abandoning them. He said they all just tried to impress each other
> with how smart they were.
>

i've heard it's mainly underachievers. however, i like being around smart
people, so i will consider joining. i'm not looking to impress anyone, but
the conversations at workplaces are very dull to me.

Gravity

> ****** Newsgroups replace Mensa -- Film at 11:00 *********
>
>

4404. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:34:00 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <autf921knqu38gaq0m1cep8vu23dl6lbfi@4ax.com>
Source record: 57546

On Tue, 20 Jun 2006 11:52:32 +0000, Rob Roschewsk <nospam@nospam.com>
wrote:

>Thanks to all for the feedback.
>
>So I'm guessing radial are a must for any vertical.
>
>If I want something made of wire, and omni directional what would be my
>best bet? Inverted-V ?
>
>--> Rob
>ka2pbt

For my qrp rig, I'm using an end-fed wire, sorta L shaped, going up
about 20 feet, then horizontal. It's 3/4 wavelength long for the low
end of 20, attached to the random wire terminal of my tuner, with a
single 1/4 wave counterpoise attached to the ground of the tuner. A
few twists of the tuner inductor, and it sees pretty low swr. Not sure
I would try this with high power, but at qrp levels it doesn' seem to
be a problem, bringing the antenna into the shack.

bob
k5qwg

>
>
>Dale Parfitt wrote:
>> >
>>> i've only made one 5/8 wave. i hear a cap works well since the antenna is
>>> overlength and thus inductive.
>>>
>> The antenna is short of a 3/4 wave and therefore capacitive, not inductive.
>> Either a series coil or a grounded tapped coil will work. Radials are a
>> must.
>>
>> Dale W4OP
>>
>>

4405. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:38:13 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <9TSlg.101112$H71.51890@newssvr13.news.prodigy.com>
Source record: 57547

Tom Donaly wrote:
> You could be right, who knows? Certainly not the people who
> are afraid to experiment.

No need to reinvent the wheel when all the experimentation
in the world has already been done. There have been many
experiments performed concerning "fairweather phenomena".
(Thanks Jim) A Yahoo search turned up hundreds of references.

"Atmospheric Electrostatics" is a 120 page free book
available for downloading at:

http://www.colutron.com/products/cosmos.html

Here's a quote:
"In contrast to rain, precipitation currents carried to
ground by snow are usually always negative under
potential gradients between +/- 800 V/m (Chalmers 1956).
The total precipitation current around the earth is
estimated to be about +340 amperes."

Changing the subject away from charged water/dust
particles: One of the items that W8JI has been calling
"corona" is not corona at all. It is called the "electric
fairweather field" which is NOT corona. Corona requires
an ionizing current of 100 uA per cm^2 for as long as
the corona persists.
--
73, Cecil http://www.qsl.net/w5dxp

4406. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:38:34 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4497fa98$0$5227$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57548
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

jesus, let's just do away with the written test *and* the CW test. let's just open the doors to anyone. we'll set up a webpage at the ARRL site, and you'll just point and click. it will be as easy as becoming a Reverend.

you could license your dog, a terrorist, anyone.

honestly, i am very glad there are minimum requirements. this keeps out people who are not serious about the hobby. people who don't know what they are doing should not be transmitting (esp on HF).

this whole CW debate is what we call the dumbing down of America.

i mean we have minimum standards for driving in America or becoming a citizen, why is ham radio so different?

Gravity

4407. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:40:14 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <4497fafc$0$5227$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57549
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"Dave" <W1MCE@comcast.net> wrote in message
news:hJadnTUU2tGVQgrZnZ2dnUVZ_q6dnZ2d@comcast.com...
> I'll top post again for brevity and getting to the point.
>
> I like CW! It is most likely going away as a requirement. I'm sad at this.
>
> Amateur radio will change as a result. Everything changes. Hopefully the
changes
> will be positive.
>

i have an idea. get rid of the CW and triple the difficulty of the written
test. there is certain element of society, which needs to be kept out of
the HF spectrum.

Gravity

> Dave wrote:
>
> > 5 WPM is do-able! My 4 1/2 year granddaughter copies 5 wpm! Her 10 year
> > old brother, who learned it in Cub Scouts, taught her. And, she can't
> > even spell yet! But, she knows the alphabet from watching TV.
> >
> > Some people have DIFFICULTY learning Morse Code, real difficulty!
>
> MAJOR SNIPPING from here down.
>

4408. Re: ULF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:47:46 UTC
From: richardharrison@webtv.net
Message-ID: <5361-4497FC82-194@storefull-3253.bay.webtv.net>
Source record: 57551

John Popelish wrote:
"The iron core rod takes up a little less space---."

A relay-coil works well for me.

Best regards, Richard Harrison, KB5WZI

4409. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:50:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <e2Tlg.101116$H71.98821@newssvr13.news.prodigy.com>
Source record: 57550

Gene Fuller wrote:
> Do you suppose corona cares whether the air molecules themselves are
> charged or whether the unbalanced charge is held on these highly
> electrified dust particles?

Corona requires an ionized path through the air with
a sustained current of 100 uA per cm^2. What you are
calling corona is not corona. If a charged particle
is not in the act of discharging, by definition it
cannot be corona. On a clear dusty day, where is the
ionized glowing path through the air that necessarily
accompanies corona?

What W8JI has previously been describing is the electric
fairweather field, not corona. Please see:

http://www.colutron.com/products/cosmos.html
--
73, Cecil http://www.qsl.net/w5dxp

4410. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:57:51 UTC
From: Rob Roschewsk <nospam@nospam.com>
Message-ID: <W9idnekA74l9YwrZnZ2dnUVZ_qednZ2d@comcast.com>
Source record: 57552

Cecil Moore wrote:
> Rob Roschewsk wrote:
>> If I want something made of wire, and omni directional what would be
>> my best bet? Inverted-V ?
>
> How about a 1/2WL vertical?
OK. End fed?? How should I feed it? Ladder line like a Zepp??

--> Rob
ka2pbt

4411. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 13:58:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <U9Tlg.101117$H71.86719@newssvr13.news.prodigy.com>
Source record: 57553

gravity wrote:
> i've heard it's mainly underachievers. however, i like being around smart
> people, so i will consider joining. i'm not looking to impress anyone, but
> the conversations at workplaces are very dull to me.

You take an average lady to a nice restaurant and engage
in small talk while buying her dinner and a few drinks.
If she likes you well enough, she will go home with you.

The only difference in MENSA ladies is that they don't
like small talk. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4412. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 14:01:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <KcTlg.101118$H71.46281@newssvr13.news.prodigy.com>
Source record: 57554
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

gravity wrote:
> i mean we have minimum standards for driving in America or becoming a
> citizen, why is ham radio so different?

When I got my driver's license in 1952, the driving test
was required to be taken on a stick shift vehicle. Do
you think that should still be a requirement?
--
73, Cecil http://www.qsl.net/w5dxp

4413. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 14:03:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <yeTlg.101120$H71.85972@newssvr13.news.prodigy.com>
Source record: 57555
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

gravity wrote:
> i have an idea. get rid of the CW and triple the difficulty of the written
> test. there is certain element of society, which needs to be kept out of
> the HF spectrum.

How about just requiring a scientific/technical
degree from an accredited university?
--
73, Cecil http://www.qsl.net/w5dxp

4414. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 14:07:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <NiTlg.101121$H71.1839@newssvr13.news.prodigy.com>
Source record: 57556

Rob Roschewsk wrote:
> Cecil Moore wrote:
>> How about a 1/2WL vertical?

> OK. End fed?? How should I feed it? Ladder line like a Zepp??

I would center feed it with horizontal ladder-line
and use it on 20m-10m.

However, a 1/4WL sleeve on the bottom half would
allow you to feed it at the bottom with coax.

Another possibility is a matching network at the base.
Your ground rod might work OK with that.
--
73, Cecil http://www.qsl.net/w5dxp

4415. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 14:21:55 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1150813315.235569.196590@r2g2000cwb.googlegroups.com>
Source record: 57557
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

kb9rqz_child_molester@yahoo.com wrote:
> an old friend wrote:
> > jawod wrote:
> > > markie_morgan_rapesboys@yahoo.com wrote:
> >
> > > > > Get help for your lying.
> > > >
> > >
> > > Why don't you guys get a room?
> > why would I want to get a room with him?
>
> Because you are a faggot!
so I only have sex with people and wismen you don't make the cut

4416. Re: ULF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 14:31:26 UTC
From: "n3ox.dan@gmail.com" <n3ox.dan@gmail.com>
Message-ID: <1150813886.625485.174640@i40g2000cwc.googlegroups.com>
Source record: 57558

Nice topic! All of these are good ideas, but you should try a J-pole

Only 885,213,951 inch todal lenght for 10 Hz and gets out...

of... the atmosphere... and well, I'm leaving mechanical details to
you. :-)

- - - - - -

I guess you're looking for ULF earth-ionosphere cavity mode type stuff?
Neat...

Dan
N3OX

4417. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 14:38:49 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <fsidnTe6YIzqlQXZnZ2dnUVZ_s2dnZ2d@comcast.com>
Source record: 57559
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

SNIPPED
>
> Poor Markie, so bitter that kids can pass morse code tests and he is
> too stupid to pass one.
>

NO! Don't label another person! It is wrong to label! Particularly when you do not know any of his/her life's circumstances.

I said some people have difficulty learning or learning one particular subject.

It is reported that Albert Einstein had difficulty learning Calculus. The man was a Physics genius but needed help with advanced math.

I hold a degree in engineering and have completed four years of seminary, but I have not been able to learn conversational SPANISH. [About two years after ordination the Cardinal requested that I learn Spanish at the seminary . After two months the instructor approved my withdrawal from the class. I could learn vocabulary, how to read, write and the grammar for spanish, but my ear does not hear spanish. Total immersion in a Spanish speaking community would be the way for me to learn.]

I still say, anyone who can learn an/the alphabet can learn Morse Code. For those with difficulty, the solution to the issue is teaching METHODs not the student's difficulty. Any alphabet is recognizing sound patterns. Words are simply combinations of sound patterns.

For 'an_old_friend' I would begin by teaching an alphabet of SOUND PATTERNS. No requirement for speed. Just focus on sound patterns. Keep it very simple. Each two hour lesson would focus on no more than 7 letters until well heard. Then move to SOUND PATTERNS that are close to or similar to those [s]he has learned and is mastering. [Example: learn the sound patterns for 'A', 'W', and 'J' repeat until they are instantly recognized. Then move on to 'N' 'D', 'B', etc. Don't count 'dots' or 'dashes' but hear sound patterns.]

The next two hour session, one week later, would begin with a review then add 'T, M, O' followed by 'E, I, S, H'. Drill sound patterns. Then end the session by sending simple words using the 1/2 of the alphabet that has been studied. Speed is NOT a requirement! Accuracy is! If Farnsworth timing at 18 wpm is a roadblock, then change practice timing to 13 wpm or 10 wpm or 7 1/2 wpm or 5 wpm or 3 wpm. SPEED is NOT a REQUIREMENT! Accuracy is!

The next two weeks complete the alphabet. Week five would include the numbers and common punctuation. [5 sound character patterns and 6 sound character patterns].

Having said all this, my defense of CW is not any legal requirement. It is simply the best way to work rare DX. Much less power required. Much less bandwidth required. Much more discernible [copyable] in a pile. And, it is fun!

/s/ DD, W1MCE

4418. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 14:50:43 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44980b82$0$74023$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57560
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

> It is reported that Albert Einstein had difficulty learning Calculus. The
man
> was a Physics genius but needed help with advanced math.

it was differential geometry that Einstein was unfamiliar with. when formulating relativity, he realized that he needed tools that he was not familiar with. so he went to a mathematician friend and learned which tools he needed.

please understand this in the context of 1912. differential geometry was fairly new back then, i believe it came from Riemann.

it's possible for some branches of math and physics to be relatively arcane. for instance, de Borges attempted proofs use operator theory. most mathematics students cannot read his papers. in fact, most professional mathematicians can't read them either. the only reason that de Borges proof of Bieberbach became accepted is that it was rewritten by other Europeans.

it's not uncommon for a theoretical physicist to have to learn a new branch of math to solve a problem. for instance, string theorists working on the landscape turned to statistics.

Gravity

4419. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 14:53:48 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1150815227.965866.316460@g10g2000cwb.googlegroups.com>
Source record: 57561
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

Dave wrote:
> SNIPPED
> >
> > Poor Markie, so bitter that kids can pass morse code tests and he is
> > too stupid to pass one.
> >
>
> NO! Don't label another person! It is wrong to label! Particularly when you do
> not know any of his/her life's circumstances.
Wismen labels everybody except himself of course

> I still say, anyone who can learn an/the alphabet can learn Morse Code. For
> those with difficulty, the solution to the issue is teaching METHODs not the
> student's difficulty. Any alphabet is recognizing sound patterns. Words are
> simply combinations of sound patterns.
>
> For 'an_old_friend' I would begin by teaching an alphabet of SOUND PATTERNS. No
> requirement for speed. Just focus on sound patterns. Keep it very simple. Each
> two hour lesson would focus on no more than 7 letters until well heard. Then
> move to SOUND PATTERNS that are close to or similar to those [s]he has learned
> and is mastering. [Example: learn the sound patterns for 'A', 'W', and 'J'
> repeat until they are instantly recognized. Then move on to 'N' 'D', 'B', etc.
> Don't count 'dots' or 'dashes' but hear sound patterns.]
prehaps you are trying to be helpfull

you are coming off insulting and condesnding
that metodalogy was tried and my ears lose the older set of patterns
in a few day before I get a hold of the next set

> Having said all this, my defense of CW is not any legal requirement. It is
> simply the best way to work rare DX. Much less power required. Much less
> bandwidth required. Much more discernible [copyable] in a pile. And, it is fun!

fun for you the migraine headaches I get listening to any of it is not
fun none enjoys pain on that level

yes I might be ableto learn well enough now with only a receive or
tranmited test (and if I were going to try it would be to send) so I
don't have to listen to it

you have fun with fine go for it
Bear in mind I think Mose and esp the attiudes around are bad for the
ARS but I support your freedom to disagree and even to just do
something I consider nonproducitve just for sheer joy of it

I expect the same however for myself
>
> /s/ DD, W1MCE

4420. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 15:02:18 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44980e39$0$15916$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57562
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

> It is reported that Albert Einstein had difficulty learning Calculus. The
man
> was a Physics genius but needed help with advanced math.

relativity utilizes tensor calculus, which is a few semesters beyond the basic integral calculus taught to many college students. even today, relativity is viewed as fairly knotty. general relativity really isn't tackled until graduate school.

it's my understanding that Einstein was very good at math. to be a lowly patent clerk and revolutionize physics requires real skill.

what is advanced math? multivariable calculus and ordinary differential equations are viewed as advanced by the general population, however millions of people have learned the basics of these. in contrast, there are papers in number theory that can only be a read by a dozen people on the planet.

it's partially due to our own limitations as humans.

Gravity

4421. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 15:36:56 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44981657$0$16435$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57563
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

> you have fun with fine go for it
> Bear in mind I think Mose and esp the attiudes around are bad for the
> ARS but I support your freedom to disagree and even to just do
> something I consider nonproducitve just for sheer joy of it

nonproductive? yet somehow saying "get help" 1000 times is a valuable use
of time?

Gravity

>
> I expect the same however for myself
> >
> > /s/ DD, W1MCE
>

4422. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 15:40:54 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1150818054.722344.295600@y41g2000cwy.googlegroups.com>
Source record: 57564
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

gravity wrote:
> > you have fun with fine go for it
> > Bear in mind I think Mose and esp the attiudes around are bad for the
> > ARS but I support your freedom to disagree and even to just do
> > something I consider nonproducitve just for sheer joy of it
>
> nonproductive?
yes non productive
>yet somehow saying "get help" 1000 times is a valuable use
> of time?
not in and of itself

but to bury the filth posted about me yes it is and it takes very
little time indeed I have the process almost automated
>
> Gravity

4423. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 15:53:41 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <9SUlg.3599$Td6.1671@trnddc08>
Source record: 57565

Cecil Moore wrote:

> "Atmospheric Electrostatics" is a 120 page free book
> available for downloading at:
>
> http://www.colutron.com/products/cosmos.html
>
> Here's a quote:
> "In contrast to rain, precipitation currents carried to
> ground by snow are usually always negative under
> potential gradients between +/- 800 V/m (Chalmers 1956).
> The total precipitation current around the earth is
> estimated to be about +340 amperes."

So that would give a current of about 0.06 picoamperes per square foot?

4424. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 15:55:07 UTC
From: Rob Roschewsk <nospam@nospam.com>
Message-ID: <HZOdnfJjX6_BhwXZnZ2dnUVZ_oqdnZ2d@comcast.com>
Source record: 57566

The sleeve idea sounds interesting.

Could I build it out of say aluminum tubing, run the coax up the center
of the tube to some sort of insulator, shield connected to the braid and
center connected to a wire extending upwards? Could I build the top half
out of tubing as well or does the radiator need to be significantly
smaller than the sleeve?

de ka2pbt

Cecil Moore wrote:
> Rob Roschewsk wrote:
>> Cecil Moore wrote:
>>> How about a 1/2WL vertical?
>
>> OK. End fed?? How should I feed it? Ladder line like a Zepp??
>
> I would center feed it with horizontal ladder-line
> and use it on 20m-10m.
>
> However, a 1/4WL sleeve on the bottom half would
> allow you to feed it at the bottom with coax.
>
> Another possibility is a matching network at the base.
> Your ground rod might work OK with that.

4425. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 15:57:46 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <_VUlg.221018$Fs1.199409@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57567

Cecil Moore wrote:
> Gene Fuller wrote:
>> Do you suppose corona cares whether the air molecules themselves are
>> charged or whether the unbalanced charge is held on these highly
>> electrified dust particles?
>
> Corona requires an ionized path through the air with
> a sustained current of 100 uA per cm^2. What you are
> calling corona is not corona. If a charged particle
> is not in the act of discharging, by definition it
> cannot be corona. On a clear dusty day, where is the
> ionized glowing path through the air that necessarily
> accompanies corona?
>
> What W8JI has previously been describing is the electric
> fairweather field, not corona. Please see:
>
> http://www.colutron.com/products/cosmos.html

Cecil,

That's a good one. Are you going to start referencing the CFA and EH crowd next?

73,
Gene
W4SZ

4426. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 16:03:31 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44981c92$0$64664$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57568

"John - KD5YI" <groups5munge@verizon.net> wrote in message
news:9SUlg.3599$Td6.1671@trnddc08...
> Cecil Moore wrote:
>
> > "Atmospheric Electrostatics" is a 120 page free book
> > available for downloading at:
> >
> > http://www.colutron.com/products/cosmos.html
> >
> > Here's a quote:
> > "In contrast to rain, precipitation currents carried to
> > ground by snow are usually always negative under
> > potential gradients between +/- 800 V/m (Chalmers 1956).
> > The total precipitation current around the earth is
> > estimated to be about +340 amperes."
>
>
> So that would give a current of about 0.06 picoamperes per square foot?

oh my god. there are several picoamperes on my antennas! what should i do?

Gravity

4427. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 16:05:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <x1Vlg.152182$F_3.120222@newssvr29.news.prodigy.net>
Source record: 57569

John - KD5YI wrote:
> Cecil Moore wrote:
>> "In contrast to rain, precipitation currents carried to
>> ground by snow are usually always negative under
>> potential gradients between +/- 800 V/m (Chalmers 1956).
>> The total precipitation current around the earth is
>> estimated to be about +340 amperes."
>
> So that would give a current of about 0.06 picoamperes per square foot?

I assume that's an average value. Localized values could
be much less or much greater.
--
73, Cecil http://www.qsl.net/w5dxp

4428. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 16:11:33 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1150819893.041370.125140@y41g2000cwy.googlegroups.com>
Source record: 57570

n3ox.dan@gmail.com wrote:
> I guess I'm learning a public lesson but I'm going to post this as a
> wrapup.
>
> I figured out the problem. My inch of wire appears to measure about
> 0.06 microhenries.
>
> 1/(2*Pi*sqrt(0.06microhenries*165picofarads) ~ 50MHz
>
> 73,
> Dan
> N3OX

Yeah, you discovered why they* suggest using an array of values of bypass capacitors, even when using SMT capacitors with "zero" lead length, to do a good job of bypassing a supply over a wide frequency range. And why even in ham construction literature from the 1950s they talk about keeping leads very short for good RF construction.

Cheers,
Tom

* Some will argue with using different values because it can lead to unwanted resonances. But those who do it right, by using several values with no large ratio from one value to the next, get very good bypassing by using multiple values.

4429. Re: Offer to W8JI

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 16:41:33 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <1zVlg.81093$Lg.73241@tornado.southeast.rr.com>
Source record: 57571

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:UyKlg.103$lv.33@fed1read12...

> ****** Newsgroups replace Mensa -- Film at 11:00 *********
>

There is a rec.org. mensa newsgroup... Several Hams on it too, but many have
left. A few years ago it was very active with some engineering professors.
It's been hijacked by political talk lately; however, some political
discussions are fun.

Alan
WN4HOG

4430. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 17:17:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <85Wlg.119582$dW3.100953@newssvr21.news.prodigy.com>
Source record: 57572

Rob Roschewsk wrote:
> The sleeve idea sounds interesting.
>
> Could I build it out of say aluminum tubing, run the coax up the center
> of the tube to some sort of insulator, shield connected to the braid and
> center connected to a wire extending upwards? Could I build the top half
> out of tubing as well or does the radiator need to be significantly
> smaller than the sleeve?

Cut two 1/4WL sections of tubing. Slip one over the coax and
connect it to the coax braid where the coax enters the
tubing. Leave the outer insulation on the coax. Don't connect
the bottom tube or the coax braid to anything where the coax
comes out. Install an insulator/support to hold the two pieces
of tubing together in a straight line dipole-like configuration.
Tie the coax inner conductor to the upper tubing. With this
configuration, you won't need additional choking on the feedline.

```
******************* ********************+
| ====================+========
1/4WL +--------------------------------- coax
| ====================+========
******************* ********************+
```

*** is the tubing, + is a connection.
--
73, Cecil http://www.qsl.net/w5dxp

4431. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 17:24:48 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <AbWlg.119590$dW3.84070@newssvr21.news.prodigy.com>
Source record: 57573

gravity wrote:
> "John - KD5YI" <groups5munge@verizon.net> wrote in message
> news:9SUlg.3599$Td6.1671@trnddc08...
>
>>Cecil Moore wrote:
>>
>>
>>>"Atmospheric Electrostatics" is a 120 page free book
>>>available for downloading at:
>>>
>>>http://www.colutron.com/products/cosmos.html
>>>
>>>Here's a quote:
>>>"In contrast to rain, precipitation currents carried to
>>>ground by snow are usually always negative under
>>>potential gradients between +/- 800 V/m (Chalmers 1956).
>>>The total precipitation current around the earth is
>>>estimated to be about +340 amperes."
>>
>>
>>So that would give a current of about 0.06 picoamperes per square foot?
>
>
> oh my god. there are several picoamperes on my antennas! what should i do?
>
> Gravity
>
>

Well, one fellow wanted to use them to trickle charge a battery. Good
luck with that!
73,
Tom Donaly, KA6RUH

4432. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 17:43:31 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <129gcu64mvl1be5@corp.supernews.com>
Source record: 57575

K7ITM wrote:
> n3ox.dan@gmail.com wrote:
>> I guess I'm learning a public lesson but I'm going to post this as a
>> wrapup.
>>
>> I figured out the problem. My inch of wire appears to measure about
>> 0.06 microhenries.
>>
>> 1/(2*Pi*sqrt(0.06microhenries*165picofarads) ~ 50MHz
>>
>> 73,
>> Dan
>> N3OX
>
> Yeah, you discovered why they* suggest using an array of values of
> bypass capacitors, even when using SMT capacitors with "zero" lead
> length, to do a good job of bypassing a supply over a wide frequency
> range. And why even in ham construction literature from the 1950s they
> talk about keeping leads very short for good RF construction.
> . . .

And just one of the many reasons I keep saying that good RF measurements are much more difficult to make than most people realize.

Roy Lewallen, W7EL

4433. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 17:44:20 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <td-dnUrUg_uGrwXZnZ2dnUVZ_vydnZ2d@adelphia.com>
Source record: 57574

Cecil Moore wrote:

> Cut two 1/4WL sections of tubing. Slip one over the coax and
> connect it to the coax braid where the coax enters the
> tubing. Leave the outer insulation on the coax. Don't connect
> the bottom tube or the coax braid to anything where the coax
> comes out. Install an insulator/support to hold the two pieces
> of tubing together in a straight line dipole-like configuration.
> Tie the coax inner conductor to the upper tubing. With this
> configuration, you won't need additional choking on the feedline.
>
> ******************** **********************
> | ====================+========
> 1/4WL +-------------------------------- coax
> | ====================+========
> ******************** **********************
>
> *** is the tubing, + is a connection.

I don't understand how this would work. The tube to coax connection on the right seems to extend the 1/4 wave tube indefinitely, down the line. I think I would connect the coax shield to the right tube at that tube's left end, and add a ferrite current balun around the coax where it exits at the right end of that tube.

4434. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 17:52:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <6BWlg.119600$dW3.22685@newssvr21.news.prodigy.com>
Source record: 57476

Gene Fuller wrote:
> That's a good one. Are you going to start referencing the CFA and EH
> crowd next?

Is NASA part of the CFA and EH crowds? Please note the complete
absence of references to corona when fairweather fields are
being discussed.

http://science.nasa.gov/newhome/headlines/essd15jun99_1.htm
"Later experimenters showed that *clear, calm air* carries an
electrical current ...

http://www.sgo.fi/SPECIAL/Contributions/Tammet.pdf
"The global component of variations of *fair weather electricity*
is a subject of special attention ..."

http://www.ce-mag.com/archive/02/07/mrstatic.html
"Fair-weather conditions are shown on the left side of the
figure, where a downward electric field drives positive
charges toward ground."

http://www.missioninstruments.com/pages/learning/elec_fields.html
"On a *clear day*, when the atmosphere is clear of storm clouds,
the primary source of electric charge creating an electric field
on the surface of the earth is the ionosphere. ... This scenario
creates what is termed a "fair weather" electric field due to
the positive charge overhead."

www.campbellsci.com/documents/manuals/cs110_overview.pdf
"On a *clear day (fair weather)*, a relatively small number of
positive ions exist in the atmosphere that give rise to an
electric field on the order of -100 to -200 V/m."
--
73, Cecil http://www.qsl.net/w5dxp

4435. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 18:16:15 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <PXWlg.119604$dW3.18765@newssvr21.news.prodigy.com>
Source record: 57477

John Popelish wrote:
> Cecil Moore wrote:
>> ******************** **********************+
>> | =====================+========
>> 1/4WL +-------------------------------- coax
>> | =====================+========
>> ******************** **********************+
>>
>
> I don't understand how this would work.

Now that you mention it, neither do I. I just copied it from
the 1993 ARRL Handbook, Fig. 3, on page 14-4. I do know how it
works when feeding a balanced antenna. Let me redraw it with
one that I know works.

******************** ********************** choke
| +=================================
1/4WL +-------------------------------- coax
| +=================================
******************** ********************** choke
--
73, Cecil http://www.qsl.net/w5dxp

4436. Re: Copper tubing capacitors

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 18:25:39 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1150827939.428426.102880@b68g2000cwa.googlegroups.com>
Source record: 57478

Roy Lewallen wrote:
> K7ITM wrote:
> > n3ox.dan@gmail.com wrote:
> >> I guess I'm learning a public lesson but I'm going to post this as a
> >> wrapup.
> >>
> >> I figured out the problem. My inch of wire appears to measure about
> >> 0.06 microhenries.
> >>
> >> 1/(2*Pi*sqrt(0.06microhenries*165picofarads) ~ 50MHz
> >>
> >> 73,
> >> Dan
> >> N3OX
> >
> > Yeah, you discovered why they* suggest using an array of values of
> > bypass capacitors, even when using SMT capacitors with "zero" lead
> > length, to do a good job of bypassing a supply over a wide frequency
> > range. And why even in ham construction literature from the 1950s they
> > talk about keeping leads very short for good RF construction.
> > . . .
>
> And just one of the many reasons I keep saying that good RF measurements
> are much more difficult to make than most people realize.
>
> Roy Lewallen, W7EL

As one who is dedicated to making equipment that enables making good RF measurements, I say, "Amen, Brother Roy." One of the problems, if you will, of modern test equipment is that it makes it LOOK like it's easy to make good measurements, but you would be wise indeed to think instead that the equipment operation is easier so that you can spend your time making sure that your measurement setup is appropriate to the task, and so that you can make measurements in multiple different ways as a double-check or triple-check with less effort than you might have used before to make one uncertain measurement.

Only slight topic drift: it's rather like trusting SPICE (or other simulator) to give you the right answer without understanding either SPICE's limitations or your model's limitations. Properly used, SPICE is a great tool. Improperly used, it will give you some very bad answers. Neither SPICE nor modern test equipment is a substitute for using your head--but both can free you to use your head more effectively and creatively.

Cheers,
Tom

4437. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 18:31:07 UTC
From: peewee_lloyd_davies@yahoo.com
Message-ID: <1150828266.970617.106520@i40g2000cwc.googlegroups.com>
Source record: 57479
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

```
an old freind wrote:
> kb9rqz_child_molester@yahoo.com wrote:
> > an old friend wrote:
> > > jawod wrote:
> > > > markie_morgan_rapesboys@yahoo.com wrote:
> > >
> > > > > Get help for your lying.
> > > > >
> > > >
> > > > Why don't you guys get a room?
> > > why would I want to get a room with him?
> >
> > Because you are a faggot!
> so I only have sex with

And You have sex with other man and goats, faggot!
```

4438. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 18:36:22 UTC
From: peewee_lloyd_davies@yahoo.com
Message-ID: <1150828582.305021.130980@i40g2000cwc.googlegroups.com>
Source record: 57480
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

an old freind wrote:
> Dave wrote:
> > SNIPPED
> > >
> > > Poor Markie, so bitter that kids can pass morse code tests and he is
> > > too stupid to pass one.
> > >
> >
> > NO! Don't label another person! It is wrong to label! Particularly when you do
> > not know any of his/her life's circumstances.

It's obvious that Markie is a retard.

> Wismen labels everybody except himself of course

Marky labels everybody Wismen since he is so fucking stupid and sees
Wismen everywhere!

>
> > I still say, anyone who can learn an/the alphabet can learn Morse Code. For
> > those with difficulty, the solution to the issue is teaching METHODs not the
> > student's difficulty. Any alphabet is recognizing sound patterns. Words are
> > simply combinations of sound patterns.

Just look at Markie's posts, He can't learn the alphabet.
He can't post in anything resembling English.

> > For 'an_old_friend' I would begin by teaching an alphabet of SOUND PATTERNS. No
> > requirement for speed. Just focus on sound patterns. Keep it very simple. Each
> > two hour lesson would focus on no more than 7 letters until well heard. Then
> > move to SOUND PATTERNS that are close to or similar to those [s]he has learned
> > and is mastering. [Example: learn the sound patterns for 'A', 'W', and 'J'
> > repeat until they are instantly recognized. Then move on to 'N' 'D', 'B', etc.
> > Don't count 'dots' or 'dashes' but hear sound patterns.]
> prehaps you are trying to be helpfull
>
> you are coming off insulting and condesnding
> that metodalogy was tried and my ears lose the older set of patterns
> in a few day before I get a hold of the next set

Face it, you are too stupid to learn morse code.

>
> > Having said all this, my defense of CW is not any legal requirement. It is

> > simply the best way to work rare DX. Much less power required. Much less
> > bandwidth required. Much more discernible [copyable] in a pile. And, it is fun!
>
> fun for you the migraine headaches I get listening to any of it is not
> fun none enjoys pain on that level

You have nothing in your empty skull to give you headaches, Markie!

> yes I might be ableto learn well enough now with only a receive or
> tranmited test (and if I were going to try it would be to send) so I
> don't have to listen to it
>
> you have fun with fine go for it
> Bear in mind I think Mose and esp the attiudes around are bad for the
> ARS but I support your freedom to disagree and even to just do
> something I consider nonproducitve just for sheer joy of it
>
> I expect the same however for myself

More excuses, loser?

4439. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 18:38:21 UTC
From: peewee_lloyd_davies@yahoo.com
Message-ID: <1150828701.116189.214400@p79g2000cwp.googlegroups.com>
Source record: 57481
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

an old freind wrote:
> gravity wrote:
> > > you have fun with fine go for it
> > > Bear in mind I think Mose and esp the attiudes around are bad for the
> > > ARS but I support your freedom to disagree and even to just do
> > > something I consider nonproducitve just for sheer joy of it
> > >
> > nonproductive?
> yes non productive

Only because you are too stupid and lazy to learn it.

> >yet somehow saying "get help" 1000 times is a valuable use
> > of time?
> not in and of itself
>
> but to bury the filth posted about me yes it is and it takes very
> little time indeed I have the process almost automated

Markie comes up with a rationalization of his spamming. Too bad it's
like him, seriously flawed.

4440. Re: Sky noise temperature - 2m, 70cm, 23cm

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 18:47:26 UTC
From: K7ITM <k7itm@msn.com>
Message-ID: <1150829246.594449.283790@y41g2000cwy.googlegroups.com>
Source record: 57482

I only scanned the replies so far, so may have missed a similar reference, but recent editions of "Reference Data for Engineers" (used to be ITT Reference Data for Radio Engineers) in the "noise" chapter have a couple "Radio-sky maps," one for 136MHz and one for 400MHz. There's a great deal of variation, depending on where you point your antenna (assuming a very narrow beamwidth). On 400MHz, at about 18 hours RA and -30 degrees declination, you'll get about 280 kelvins; at 10 hours and +30 degrees, you'll get about 15 kelvins. On 136MHz in the same two directions, it's about 3600 and 200 kelvins. Perhaps such sky maps are available online somewhere for a wider range of frequencies.

Cheers,
Tom

Owen Duffy wrote:
> Googling about turns up a little, and only a little information on the
> expected sky noise temperature on 2m, 70cm, 23cm.
>
> The information isn't very consistent. For example, articles that talk
> about the sky noise below 200MHz being 100K or more, and amateur
> articles talking about sky noise at 144MHz being "hundreds of
> degrees".
>
> Similary, for 70cm a broad brush figure of 45K seems to be used, and
> others talk about 20K away from the galactic plane and 60K on the
> galactic plane. (Yes, they will be blurred together with a low gain
> antenna.)
>
> Some discussions treat the "sky noise temperature" as if it includes
> spillover noise (eg in cold sky / hot earth measurements).
>
> Can anyone recommend a reliable source of sky noise characteristics
> for these bands.
>
> Additionally, I am interested in the range of ambient noise levels
> experienced for these bands for traditional DX activity (ie antennas
> at zero elevation.
>
> Alternatively, are satellite beacons a reliable source for measuring
> station receive performance?
>
> Or... is there some other better way of measuring station receive
> performance?
>

> Owen
> --

4441. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 19:01:41 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <pCXlg.221806$Fs1.92783@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57483

Cecil Moore wrote:
> Gene Fuller wrote:
>> That's a good one. Are you going to start referencing the CFA and EH
>> crowd next?
>
> Is NASA part of the CFA and EH crowds? Please note the complete
> absence of references to corona when fairweather fields are
> being discussed.
>

Cecil,

None of those references mention world peace or noise on HF antennas either. What is your point? There is an entire universe of documents that include no reference to corona.

I will repeat, nobody has any issues with fairweather fields or any of the other atmospheric stuff you keep dredging up. So what?

You have not offered a single reference beyond the ARRL Handbook that supports your model for noise generation.

73,
Gene
W4SZ

4442. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 19:33:30 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1150832010.498402.159720@u72g2000cwu.googlegroups.com>
Source record: 57484
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

peewee_lloyd_davies@yahoo.com wrote:
> an old freind wrote:
> > Dave wrote:
> > > SNIPPED

> > Wismen labels everybody except himself of course
>
> Marky labels everybody Wismen since he is so fucking stupid and sees
> Wismen everywhere!
wismen lying some more
>
> >
> > > I still say, anyone who can learn an/the alphabet can learn Morse Code. For
> > > those with difficulty, the solution to the issue is teaching METHODs not the
> > > student's difficulty. Any alphabet is recognizing sound patterns. Words are
> > > simply combinations of sound patterns.
>
>
> Just look at Markie's posts, He can't learn the alphabet.
> He can't post in anything resembling English.
which means you must agree I can't learn morse and the poster is in
error thank yopu
now run along and get help you little troll

4443. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 19:35:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <96Ylg.101211$H71.94462@newssvr13.news.prodigy.com>
Source record: 57485

Gene Fuller wrote:
> I will repeat, nobody has any issues with fairweather fields or any of
> the other atmospheric stuff you keep dredging up. So what?

Sour grapes?
--
73, Cecil http://www.qsl.net/w5dxp

4444. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 19:36:38 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1150832198.760990.180230@p79g2000cwp.googlegroups.com>
Source record: 57486
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

peewee_lloyd_davies@yahoo.com wrote:
> an old freind wrote:
sex with
>
>
> And You have sex with other man and goats, faggot!
get help prevert

4445. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 19:37:31 UTC
From: Rob Roschewsk <nospam@nospam.com>
Message-ID: <zfidnXaq9dnh0wXZnZ2dnUVZ_vSdnZ2d@comcast.com>
Source record: 57487

Yea that's what I was expecting you to say. I can remember seeing
descriptions of this "as if the ground plane is folded down around the coax"

I think I might try this ;-)

Thanks again all!

de ka2pbt

Cecil Moore wrote:
> John Popelish wrote:
>> Cecil Moore wrote:
>>> ********************+ **********************+
>>> | =====================+========
>>> 1/4WL +-------------------------------- coax
>>> | =====================+========
>>> ********************+ **********************+
>>>
>>
>> I don't understand how this would work.
>
> Now that you mention it, neither do I. I just copied it from
> the 1993 ARRL Handbook, Fig. 3, on page 14-4. I do know how it
> works when feeding a balanced antenna. Let me redraw it with
> one that I know works.
>
> ********************+ **********************+ choke
> | +=================================
> 1/4WL +-------------------------------- coax
> | +=================================
> ********************+ **********************+ choke

4446. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 21:14:47 UTC
From: earlpearl@florida.news
Message-ID: <d094j9d-ske4n349-sdjken4d@miami.fl.news>
Source record: 57488
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

In article <1150795396.623646.19870@y41g2000cwy.googlegroups.com>, "RHF"
<rhf-newsgroups@pacbell.net> wrote:
>ETP,
>
>Did you ever think that there are more CB'ers
>then Amateur Radio Operators {Hams} and
>that just may be more CB'ers voted for Bush
>then the Hams . . .
>
>so that your request may have just the oposite
>reaction in the Whitehouse then you might
>expect - something to think about ~ RHF
> .
> .
>.. .

So you're saying CB'ers have more pull because there are more of them? Hmmm.
You might be right, but we're dealing with President Bush here. He don't
listen to Lazy Stupid people. If listened to what Lazy stupid people wanted,
we'd be cutting and running from Iraq like the Democrats want and he ain't
cutting and running.

There's still hope. Send that email. Save amateur radio and shortwave.

Earl

4447. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 21:56:16 UTC
From: James Douglas <james.douglas@genesis-software.com>
Message-ID: <o42dnSY4utrn8wXZnZ2dnUVZ_rudnZ2d@comcast.com>
Source record: 57489
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

Earl the pearl wrote:
> Dear Mr President:
>
> The FCC has been dumbing down ham radio for several years now. This has
> hurt the integrity of the service and is bad for America. They are
> planning to dumb it down again really soon now and their plan will make
> ham radio like CB and it will be bad for America. We already have one CB
> service on HF, we don't need two. Please pressure the FCC to endorse the
> following items for the good of the service and America. I wish you could
> run again for a third term, I would vote for you. I'm glad Al Gore wasn't
> able to steal the election, and John Kerry would have been a disaster, he'd
> be kissing terrorist butts and brown nosing them. Thanks for the fine
> job you're doing protecting and leading America.
>
> Signed
> (Your name & callsign)
>
>
> No more automatic renewals. Individuals must retest and pass all elements
> required for their license class.
>
> The passing score for written exams needs to be raised to 85%.
>
> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
> Make the no-code license one year non-renewable.
>
What kind of fuc$ing idiot wrote that letter, sounds like a CB'er to me!

4448. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 22:39:56 UTC
From: John Popelish <jpopelish@rica.net>
Message-ID: <w8KdnYA61sn_6gXZnZ2dnUVZ_vSdnZ2d@adelphia.com>
Source record: 57490

```
Cecil Moore wrote:
> John Popelish wrote:
(snip)
>> I don't understand how this would work.
>
>
> Now that you mention it, neither do I. I just copied it from
> the 1993 ARRL Handbook, Fig. 3, on page 14-4. I do know how it
> works when feeding a balanced antenna. Let me redraw it with
> one that I know works.
>
> ******************* +********************* choke
> | +================================
> 1/4WL +--------------------------------- coax
> | +================================
> ******************* +********************* choke

That is what i was trying to describe, and makes sense to me.
Thanks for drawing it.
```

4449. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 23:35:14 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129h1hg6n6lula7@corp.supernews.com>
Source record: 57491
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx,rec.radio.cb

"Earl the pearl" <earlpearl@florida.news> wrote in message
news:d094j9d-ske4n349-sdjken4d@miami.fl.news...
> In article <1150795396.623646.19870@y41g2000cwy.googlegroups.com>, "RHF"
> <rhf-newsgroups@pacbell.net> wrote:
>>ETP,
>>
>>Did you ever think that there are more CB'ers
>>then Amateur Radio Operators {Hams} and
>>that just may be more CB'ers voted for Bush
>>then the Hams . . .
>>
>>so that your request may have just the oposite
>>reaction in the Whitehouse then you might
>>expect - something to think about ~ RHF
>> .
>> .
>>.. .
>
>
>
> So you're saying CB'ers have more pull because there are more of them?
> Hmmm.
> You might be right, but we're dealing with President Bush here. He don't
> listen to Lazy Stupid people. If listened to what Lazy stupid people
> wanted,
> we'd be cutting and running from Iraq like the Democrats want and he ain't
> cutting and running.
>
> There's still hope. Send that email. Save amateur radio and
> shortwave.
>
> Earl

So what is your point? Is it that CBers are stupid? Or is it that CBers vote
democrat?
If Bush didn't listen to "Lazy Stupid" people, we would not even be in Iraq.
Maybe you missed it when they never found any WMDs in Iraq, which is why we
went to begin with. He obviously listens to "Lazy Stupid" people, like
Russian intelligence. I'm sure if you try hard enough, he will even listen
to you.
Before you label me a liberal, I voted for Bush

4450. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 23:38:33 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129h1nmhnlaa108@corp.supernews.com>
Source record: 57492
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx,rec.radio.cb

"James Douglas" <james.douglas@genesis-software.com> wrote in message
news:o42dnSY4utrn8wXZnZ2dnUVZ_rudnZ2d@comcast.com...
> Earl the pearl wrote:
>> Dear Mr President:
>>
>> The FCC has been dumbing down ham radio for several years now. This has
>> hurt the integrity of the service and is bad for America. They are
>> planning to dumb it down again really soon now and their plan will make
>> ham radio like CB and it will be bad for America. We already have one CB
>> service on HF, we don't need two. Please pressure the FCC to endorse
>> the
>> following items for the good of the service and America. I wish you
>> could
>> run again for a third term, I would vote for you. I'm glad Al Gore
>> wasn't
>> able to steal the election, and John Kerry would have been a disaster,
>> he'd
>> be kissing terrorist butts and brown nosing them. Thanks for the fine
>> job you're doing protecting and leading America. Signed
>> (Your name & callsign)
>>
>>
>> No more automatic renewals. Individuals must retest and pass all elements
>> required for their license class. The passing score for written exams
>> needs to be raised to 85%.
>>
>> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>>
>> Make the no-code license one year non-renewable.
>>
> What kind of fuc$ing idiot wrote that letter, sounds like a CB'er to me!

The same kind of idiot that perpetuates the stereotype of people that use
CB. Oh, that would be YOU!

4451. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 23:47:20 UTC
From: Slow Code <sc@mo.mail>
Message-ID: <cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net>
Source record: 57493
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in
news:YGKlg.104$lv.41@fed1read12:

>
> "dxAce" <dxAce@milestones.com> wrote in message
> news:44969559.30D72920@milestones.com...
>
>>
>> Anybody who can't pass the minimal 5 WPM doesn't deserve a license.
>
> That's needlessly insulting.

No it isn't.

Some things in life require you do a little work to enjoy their benefits.
You don't want to learn CW, you shouldn't be allowed on ham radio.

And Five words per minute ain't a code test. I can fart five words per
minute. Anyone that can't learn 5 wpm is either lazy or a tard and should
stick to CB, FRS, and cell phones.

sc

4452. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 23:47:21 UTC
From: Slow Code <sc@mo.mail>
Message-ID: <dO%lg.8937$lp.1598@newsread3.news.pas.earthlink.net>
Source record: 57494
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Cecil Moore <mycall@hotmail.com> wrote in
news:UFSlg.101109$H71.45459@newssvr13.news.prodigy.com:

> pltrgyst wrote:
>> No, it's a statement of historic fact, as determined by the licensing
>> authorities. But it's incorrct -- anyone who can't copy 5 wpm deserves
>> a license, but it's Citizen's Band.
>
> Are you saying that hundreds of thousands of no-code
> techs didn't deserve an amateur radio license?

We gave those Techs the no code license because some said they weren't
interested in HF and wanted the freedom experiment with new modes, but
that's not what happened. All we got was a bunch of appliance operators
plugging up repeaters. Maybe only two or three percent are doing digital,
new modes, satellites, scatter, aurora, DX, etc. everyone else is gabbing
on a microphone like CB'ers waiting for the FCC's R & O to come out.

sc

4453. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 23:47:23 UTC
From: Slow Code <sc@mo.mail>
Message-ID: <fO%lg.8938$lp.3438@newsread3.news.pas.earthlink.net>
Source record: 57496
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in
news:IJKlg.105$lv.102@fed1read12:

>
> "gravity" <gravityzrainbow@yahoo.com> wrote in message
> news:4496bf14$0$14238
>
>> 5 WPM is easy.
>
> Nonsense.
>
> Tell us you can do it --- tell us your mangy hound dog can do it, but
> steer clear of the blanket statements. It isn't easy to one who can't
> do it.

When code goes away, you're going to be the one that tells us the written
is too hard.

sc

4454. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 23:47:25 UTC
From: Slow Code <sc@mo.mail>
Message-ID: <hO%lg.8939$lp.2814@newsread3.news.pas.earthlink.net>
Source record: 57495
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

Cecil Moore <mycall@hotmail.com> wrote in
news:yeTlg.101120$H71.85972@newssvr13.news.prodigy.com:

> gravity wrote:
>> i have an idea. get rid of the CW and triple the difficulty of the
>> written test. there is certain element of society, which needs to be
>> kept out of the HF spectrum.
>
> How about just requiring a scientific/technical
> degree from an accredited university?

That's kind of funny but you know, I could actually agree to that. An EE
degree gets you a licence. You're certainly qualified. :-)

SC

4455. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-20 23:53:33 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44988A7D.5070900@fuse.net>
Source record: 57497
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

t we're dealing with President Bush here. He don't
> listen to Lazy Stupid people. If listened to what Lazy stupid people wanted,
> we'd be cutting and running from Iraq like the Democrats want and he ain't
> cutting and running.
>
> There's still hope. Send that email. Save amateur radio and shortwave.
>
> Earl
Man, that is the most pathetic thing I've seen posted in a while.

Don't get me started about Iraq.

Where have you been for the last 3 years?

Regarding "W": No, he "ain't" cuttin' and runnin'.

But our boys are dying. And I'll be damned if I know why.

Yeah, I know it's just another troll. I wanted to respond anyway.

4456. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 00:31:36 UTC
From: jawod <jawod@fuse.net>
Message-ID: <44989368.5080203@fuse.net>
Source record: 57498
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap,rec.radio.amateur.dx

>
> So you're saying CB'ers have more pull because there are more of them? Hmmm.
> You might be right, but we're dealing with President Bush here. He don't
> listen to Lazy Stupid people. If listened to what Lazy stupid people wanted,
> we'd be cutting and running from Iraq like the Democrats want and he ain't
> cutting and running.
>
> There's still hope. Send that email. Save amateur radio and shortwave.
>
> Earl

"Earl",
How long you bin working from the White House?
Does Karl pay you in currency or in "services"?
Now, don't go nucular, I'm just askin'.

4457. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 00:52:41 UTC
From: richardharrison@webtv.net
Message-ID: <8563-44989859-996@storefull-3254.bay.webtv.net>
Source record: 57499

Gene W4SZ wrote:
"You have not offered a single reference beyond the ARRL Handbook that supports your model for noise generation." (Directed to Cecil)

Particle discharge makes radio static noise.

Look at Terman`s description of "precipitation static". Instead of charged particles blowing in the wind and alighting on stationary antennas, Terman describes aircraft and their antennas flying through clouds of charged particles. The effect is the same.

Terman`s solution: keep the antennas away from sharp points on the aircraft which tend to noisly discharge the aircraft, insulate antenna wires, and put Faraday shields on the directional antenna loops.

Best regards, Richard Harrison, KB5WZI

4458. Re: 5/8 wave for 20 meters

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 01:08:34 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <pu6h92986ofbrdmkqfpg5p592fonii2ofh@4ax.com>
Source record: 57500

ORIGINAL MESSAGE:

On Tue, 20 Jun 2006 11:52:32 +0000, Rob Roschewsk <nospam@nospam.com>
wrote:

>If I want something made of wire, and omni directional what would be my
>best bet? Inverted-V ?

********** REPLY SEPARATOR **********

An inverted vee with the apex angle at about 90 degrees is almost
perfectly omnidirectional.

Bill, W6WRT

4459. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 01:16:20 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <ba7h92lavv1h8141hc60kbkkgumv1eqbsq@4ax.com>
Source record: 57501
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

ORIGINAL MESSAGE:

On Tue, 20 Jun 2006 07:42:03 -0400, Dave <W1MCE@comcast.net> wrote:

>I like CW! It is most likely going away as a requirement. I'm sad at this.
>
>Amateur radio will change as a result. Everything changes. Hopefully the changes
>will be positive.

********** REPLY SEPARATOR **********

Don't be sad my friend. CW will survive if people find it useful, and
especially if the diehards will stop jamming it down people's throats.

News flash: People don't like that with CW or anything else! :-)

73, Bill W6WRT
20 wpm extra, licensed 49 yrs

4460. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 01:18:22 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <kg7h92tjd93h9arujed77uu984btsuv8cv@4ax.com>
Source record: 57502
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

ORIGINAL MESSAGE:

On Tue, 20 Jun 2006 14:01:14 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>When I got my driver's license in 1952, the driving test
>was required to be taken on a stick shift vehicle. Do
>you think that should still be a requirement?

********** REPLY SEPARATOR **********

Of course not. Today's driving test should require making a left turn
while dialing a cell phone and sipping a Starbucks.

Bill, W6WRT

4461. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 01:20:21 UTC
From: Bill Turner <dezrat@copper.net>
Message-ID: <ak7h92tckkd13g4a1fnrsrv6fotdahct8p@4ax.com>
Source record: 57503
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

ORIGINAL MESSAGE:

On Tue, 20 Jun 2006 10:38:49 -0400, Dave <W1MCE@comcast.net> wrote:

>NO! Don't label another person! It is wrong to label! Particularly when you do
>not know any of his/her life's circumstances.

********** REPLY SEPARATOR **********

Not true at all. For example I can label you as a Politically Correct,
Warm-n-Fuzzy far leftist and be right on the money.

Labels have their place.

Bill, W6WRT

4462. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 02:27:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <r82mg.119731$dW3.70506@newssvr21.news.prodigy.com>
Source record: 57504
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Slow Code wrote:
> You don't want to learn CW, you shouldn't be allowed on ham radio.

Are you really ready to kick hundreds of thousands of
no-code techs off of vhf/uhf?
--
73, Cecil http://www.qsl.net/w5dxp

4463. Signal Generator

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 02:38:06 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <ji2mg.57873$9c6.51371@dukeread11>
Source record: 57505

Is there any chance I could find a used signal generator that would
cover up to 1.6 Ghz for less than $1000? When I say less than $1000, I
don't mean $999 :)

--
Chris W
KE5GIX

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Get the gifts you want &
give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

4464. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 02:41:36 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150857696.693445.194550@c74g2000cwc.googlegroups.com>
Source record: 57506
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Cecil Moore wrote:
> Slow Code wrote:
> > You don't want to learn CW, you shouldn't be allowed on ham radio.
>
> Are you really ready to kick hundreds of thousands of
> no-code techs off of vhf/uhf?
he is prepared but thankfully the FCC dsagrees

> --
> 73, Cecil http://www.qsl.net/w5dxp
```

4465. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 02:51:07 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150858267.800087.10270@u72g2000cwu.googlegroups.com>
Source record: 57507
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

jawod wrote:
> t we're dealing with President Bush here. He don't
> > listen to Lazy Stupid people. If listened to what Lazy stupid people wanted,
> > we'd be cutting and running from Iraq like the Democrats want and he ain't
> > cutting and running.
> >
> > There's still hope. Send that email. Save amateur radio and shortwave.
> >
> > Earl
> Man, that is the most pathetic thing I've seen posted in a while.
not thw worst I have seen but bad I grant you
>
> Don't get me started about Iraq.
>
> Where have you been for the last 3 years?
>
> Regarding "W": No, he "ain't" cuttin' and runnin'.
>
> But our boys are dying. And I'll be damned if I know why.
I'll take a shot at why I think they should be (now as few as possible)

we, over other years, Made Saddam the power he was but he slipped the
leash on us and bagn biting people we can't afford to allow to get bit,
we made him we had a duty to take him down, and pay the price that had
to be paid
>
> Yeah, I know it's just another troll. I wanted to respond anyway.

4466. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 03:08:06 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <qK2mg.223862$Fs1.57568@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57508

Richard Harrison wrote:
> Gene W4SZ wrote:
> "You have not offered a single reference beyond the ARRL Handbook that
> supports your model for noise generation." (Directed to Cecil)
>
> Particle discharge makes radio static noise.
>
> Look at Terman`s description of "precipitation static". Instead of
> charged particles blowing in the wind and alighting on stationary
> antennas, Terman describes aircraft and their antennas flying through
> clouds of charged particles. The effect is the same.
>
> Terman`s solution: keep the antennas away from sharp points on the
> aircraft which tend to noisly discharge the aircraft, insulate antenna
> wires, and put Faraday shields on the directional antenna loops.
>
> Best regards, Richard Harrison, KB5WZI
>

Hi Richard,

You skipped the most interesting part in Terman.

In the 1955 edition, page 857, he says,

"The term precipitation static denotes a type of interference frequently observed in an airplane passing through snow or rain. Under such circumstances, the airplane may become electrically charged to such a high potential with respect to the surrounding space that a corona discharge breaks out at some sharp point on the plane. The interference that this corona discharge produces with radio reception, termed precipitation static, is particularly serious at short-wave and lower frequencies."

So who are ya gonna believe? Terman? the ARRL Handbook? Cecil? Tom R.?

73,
Gene
W4SZ

4467. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 03:13:46 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <T-WdnQdWMov1JAXZnZ2dnUVZ_rGdnZ2d@adelphia.com>
Source record: 57509

Richard Harrison wrote:
> Gene W4SZ wrote:
> "You have not offered a single reference beyond the ARRL Handbook that
> supports your model for noise generation." (Directed to Cecil)
>
> Particle discharge makes radio static noise.
>
> Look at Terman`s description of "precipitation static". Instead of
> charged particles blowing in the wind and alighting on stationary
> antennas, Terman describes aircraft and their antennas flying through
> clouds of charged particles. The effect is the same.
>
> Terman`s solution: keep the antennas away from sharp points on the
> aircraft which tend to noisly discharge the aircraft, insulate antenna
> wires, and put Faraday shields on the directional antenna loops.

a PDF reference

http://tinyurl.com/h4o6u

I've done a bit of googling on the subject, and find that most seem to favor this sort of explanation of the phenomenon. A notable exception is W8JI. To Tom's credit he performs some experiments along those lines. I'm not completely sure that I buy the conclusions, but I'll digest them a bit more. I would suggest that Tom may want to experiment with charging dust particles with that HV source rather than water.

Some have suggested that Cecil's statements are invalid because he hasn't done the experiments - not so. His view represents the mainstream. The debunkers have the burden of proof.

- 73 de Mike KB3EIA -

4468. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 03:31:55 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <ZYadnZzHJLw3IAXZnZ2dnUVZ_sednZ2d@adelphia.com>
Source record: 57510

Tom Donaly wrote:
> gravity wrote:
>
>> "Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
>> news:LyFlg.69551$4L1.2176@newssvr11.news.prodigy.com...
>>
>>> Dave wrote:
>>>
>>>> Jim Kelley wrote:
>>>>
>>>>
>>>>>
>>>>> Tom Donaly wrote:
>>>>>
>>>>>
>>>>>
>>>>>> Where's the experimental evidence, Cecil?
>>>>>
>>>>>
>>>>>
>>>>>
>>>>> Ever heard of Ben Franklin? :-)
>>>>>
>>>>> 73, ac6xg
>>>>>
>>>>
>>>> Every winter here in New England we run numerous experiments, every
>>>> time
>>>> I walk across the living room and touch a metal door knob.
>>>>
>>>> The US military has an ESD specification of 25 KV @ 5 KOhms from a
>>>> healthy capacitor as a simulator.
>>>>
>>>> Electro static discharge on antennas has been around for years. It is
>>
>>
>> real!
>>
>>>> Dry Climate and Wind are all that's needed. Now, is the Physics at the
>>>> air molecule level [Oxygen, Nitrogen, etc.], ionized Oxygen or Nitrogen
>>>> atoms, charged dust particle level [that just begs the issue ... how
>>>> did
>>>> the dust get charged?], Van De Graff level, etc.? Who knows?
>>>>

>>>> But, the antenna ESD is a very REAL effect. You can hypothesize the
>>>> cause all day. To solve the problem at the system level, I added an ESD
>>>> bleed into my antenna switches.
>>>>
>>>> I'm going to filter this thread to the circular file.
>>>>
>>>
>>> No one said ESD didn't exist. But you hit the nail on the head so far
>>> as wind caused ESD, "Who knows?" I don't, and neither does Cecil,
>>> although he thinks he does.
>>> 73,
>>> Tom Donaly, KA6RUH
>>
>>
>>
>> i thought it came from distant thunderstorms?
>>
>> and if wind blows an ELF system around, it does get noisier. i believe
>> that's due to physical movement of the antenna system.
>>
>> Gravity
>>
>>
>
> You could be right, who knows? Certainly not the people who
> are afraid to experiment.

Just as a point of info Tom. Do you perform experiments to prove or
disprove matters to your satisfaction on everything before accepting it?
That takes a very special person to be ultimately skeptical.

Your posts would indicate that... or maybe that you just enjoy busting
on Cecil. 8^)

- 73 de Mike KB3EIA -

4469. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 03:48:26 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <--adnRxN7a4RXAXZnZ2dnUVZ_sOdnZ2d@comcast.com>
Source record: 57511
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"Bill Turner" <dezrat@copper.net> wrote in message
news:kg7h92tjd93h9arujed77uu984btsuv8cv@4ax.com...
> ORIGINAL MESSAGE:
>
> On Tue, 20 Jun 2006 14:01:14 GMT, Cecil Moore <mycall@hotmail.com>
> wrote:
>
>>When I got my driver's license in 1952, the driving test
>>was required to be taken on a stick shift vehicle. Do
>>you think that should still be a requirement?
>
> ********** REPLY SEPARATOR **********
>
> Of course not. Today's driving test should require making a left turn
> while dialing a cell phone and sipping a Starbucks.
and talking on the radio and shifting a manual transmission all at the same
time.

:-)

4470. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 04:20:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <tO3mg.153043$F_3.93293@newssvr29.news.prodigy.net>
Source record: 57512

Gene Fuller wrote:
> "The term precipitation static denotes a type of interference frequently
> observed in an airplane passing through snow or rain. Under such
> circumstances, the airplane may become electrically charged to such a
> high potential with respect to the surrounding space that a corona
> discharge breaks out at some sharp point on the plane. The interference
> that this corona discharge produces with radio reception, termed
> precipitation static, is particularly serious at short-wave and lower
> frequencies."

Corona causes RF noise for sure. But RF noise also occurs in
the complete absence of corona. RF noise in the complete absence
of corona is what we have been discussing. *Nobody* is arguing that
corona doesn't cause RF noise. We are arguing that RF noise can be
caused by something other than corona.
--
73, Cecil http://www.qsl.net/w5dxp

4471. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 04:25:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <bT3mg.153045$F_3.101126@newssvr29.news.prodigy.net>
Source record: 57513

Mike Coslo wrote:
> Some have suggested that Cecil's statements are invalid because he
> hasn't done the experiments - not so. His view represents the
> mainstream. The debunkers have the burden of proof.

Yep, here's a quote from the mainstream:

http://www.esda.org/basics/part1.cfm

"Virtually all materials, including water and dirt particles
in the air, can be triboelectrically charged."

Given charged dirt (dust) particles encountering a bare-wire
dipole, all the rest is simple physics.
--
73, Cecil http://www.qsl.net/w5dxp

4472. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 04:53:14 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <5h4mg.138$lv.13@fed1read12>
Source record: 57514
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"pltrgyst" <pltrgyst@spamlessxhost.org> wrote in message
news:p7sf921alq8bjm4rp0269lvrosks1458tf@4ax.com...

Dyslexia cannot apply, unless it is dyslexia that affects the
> remembered dot/dash pattern of a single character.

Well, Larry, it took you to the last sentence, but you did actually lurch
into the problem.
Within seconds after learning what dah-dit-dit-dah means (or
dit-dah-dah-dit, for that matter), I fail to
accurately recognize them when they are sent again. Hundreds of tries --
all failures, all mine.

From your lofty perch, as a successful Morse Code user, you look down on me.
You could stand to learn a
little humility. It would serve you and the amateur community better than
dah-dit-dah any day.

4473. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 04:53:41 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <wh4mg.139$lv.109@fed1read12>
Source record: 57516
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"Slow Code" <sc@mo.mail> wrote in message
news:cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net...
> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
> news:YGKlg.104$lv.41@fed1read12:
>
> >
> > "dxAce" <dxAce@milestones.com> wrote in message
> > news:44969559.30D72920@milestones.com...
> >
> >>
> >> Anybody who can't pass the minimal 5 WPM doesn't deserve a license.
> >
> > That's needlessly insulting.
>
>
> No it isn't.
>
> Some things in life require you do a little work to enjoy their benefits.
> You don't want to learn CW, you shouldn't be allowed on ham radio.
>
> And Five words per minute ain't a code test. I can fart five words per
> minute. Anyone that can't learn 5 wpm is either lazy or a tard and should
> stick to CB, FRS, and cell phones.

I am a gainfully-employed degreed engineer with an above-average IQ
and dyslexia. You are beneath contempt.

*CLICK*
```

4474. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 04:53:44 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <zh4mg.140$lv.36@fed1read12>
Source record: 57515
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"Slow Code" <sc@mo.mail> wrote in message
news:fO%lg.8938$lp.3438@newsread3.news.pas.earthlink.net...

>
>
> When code goes away, you're going to be the one that tells us the written
> is too hard.

You wish! Of the 55 questions on my Technician License exam,
I missed one. ONE!

Technically, I'm an above average ham. Through your dirty goggles,
however,
you see me as some kind of slug because I can't do code. So wrong.

Because I already hit the twit filter on you, I won't see any reply you
send, so
play it up any way you want.

4475. Re: Signal Generator

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 05:16:57 UTC
From: artie <artie.m@gNOSPAMmail.com>
Message-ID: <2006200622165797 72%artie.m@gNOSPAMmail.com>
Source record: 57517

In article <ji2mg.57873$9c6.51371@dukeread11>, Chris W
<1qazse4@cox.net> wrote:

> Is there any chance I could find a used signal generator that would
> cover up to 1.6 Ghz for less than $1000? When I say less than $1000, I
> don't mean $999 :)

Stability? Frequency accuracy? Phase noise? Output power? Sweep
capability?

There's a big price difference between synthesized and non-synthesized
rigs, as well as operational differences. Do you *need* the ability to
set the operating frequency easily, repeatedly, accurately? That may
point you to a synthesized/pll rig. But if you don't, such as doing
sweeps from about here to about there, non-synthesized rigs can do
fine.

Figure out what you *need* in terms of specs, and start looking around.

I'd say plenty is available for under $1000.

Wavetek 2002 for $200 on eBay -- that's good to 2.5 GHz. It's also a
sweeper. Other places have the 2002 for $100 up.

Or you can spend more money for HP/Agilent and get HPIB (remote
programming), stability, lower noise.

Wiltron 6647 on eBay, goes from .01 - 18 GHZ, for around $500, a
sweeper.

HP 8620C with 86222B, .01 - 2.4 GHz on eBay currently for under $200.

--
Namaste--

4476. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 11:53:30 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150890810.270718.211170@b68g2000cwa.googlegroups.com>
Source record: 57518
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
Sal M. Onella wrote:
> "Slow Code" <sc@mo.mail> wrote in message
> news:cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net...
> > "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
> > news:YGKlg.104$lv.41@fed1read12:

> > And Five words per minute ain't a code test. I can fart five words per
> > minute.

but look at what he says HE knows the test is uselesss he all but says
there
>
> I am a gainfully-employed degreed engineer with an above-average IQ
> and dyslexia. You are beneath contempt.
of course he is
>
> *CLICK*
```

4477. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 11:59:13 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <lwamg.32414$JW5.15101@southeast.rr.com>
Source record: 57519
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1150858267.800087.10270@u72g2000cwu.googlegroups.com...

> we, over other years, Made Saddam the power he was but he slipped the
> leash on us and bagn biting people we can't afford to allow to get bit,
> we made him we had a duty to take him down, and pay the price that had
> to be paid

Saddam was a paper tiger. Too bad we couldn't have waited till after we
found Bin Laden before taking on that task.

Alan

4478. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 12:33:18 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150893198.736119.208210@p79g2000cwp.googlegroups.com>
Source record: 57520
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

Alan wrote:
> "an_old_friend" <konstans@hotmail.com> wrote in message
> news:1150858267.800087.10270@u72g2000cwu.googlegroups.com...
>
> > we, over other years, Made Saddam the power he was but he slipped the
> > leash on us and bagn biting people we can't afford to allow to get bit,
> > we made him we had a duty to take him down, and pay the price that had
> > to be paid
>
> Saddam was a paper tiger.
not to Kuwaits mind for the house of Saud, like bitng at folks WE can
afford to allow to get bit
>Too bad we couldn't have waited till after we
> found Bin Laden before taking on that task.
prehaps you are right

OTOH I personaly don'y know I realy want UBL caputred given the way the
media and people seems to think they might say well the war on terror
is over, we won, and thereby get an even bigger shock when AlQueda next
hits us.

Indeed I wonder if some of the boys at Langley are thinking and acting
on the same thought
>
> Alan

4479. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 12:49:46 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4499406A.6050905@fuse.net>
Source record: 57521
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap,rec.radio.amateur.dx

>
>
> Saddam was a paper tiger. Too bad we couldn't have waited till after we
> found Bin Laden before taking on that task.
>
> Alan
>
>
>
Too bad, indeed. Turns out we had him cornered and apparently
deliberately let him go. The plan was to get Saddam from the beginning.
OIL again. Turf battles and internal "coups" within the White House
needlessly sacrificed American lives and dropped the ball on terrorism.

Well, we got Saddam. I feel SO MUCH safer.

4480. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 12:59:20 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <lobmg.32419$JW5.8770@southeast.rr.com>
Source record: 57522
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.swap,rec.radio.amateur.dx

"jawod" <jawod@fuse.net> wrote in message news:4499406A.6050905@fuse.net...

> Too bad, indeed. Turns out we had him cornered and apparently
> deliberately let him go. The plan was to get Saddam from the beginning.
> OIL again. Turf battles and internal "coups" within the White House
> needlessly sacrificed American lives and dropped the ball on terrorism.
>
> Well, we got Saddam. I feel SO MUCH safer.

Of course, if you own some stock in Halliburton and can reap some of the
profits of $45 dollar soft drinks you're not doing to poorly either....
http://www.giveitupcheney.org/

Alan

4481. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 13:02:43 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <Trbmg.32420$JW5.11829@southeast.rr.com>
Source record: 57524
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

"an_old_friend" <konstans@hotmail.com> wrote in message
news:1150893198.736119.208210@p79g2000cwp.googlegroups.com...
>
> Indeed I wonder if some of the boys at Langley are thinking and acting
> on the same thought
> >

The "boys at Langley" don't wield power to think and act anymore. Your VP has seen to it that his own boys in the Pentagon have taken over that business. Kill the messenger. Langley had it correct when they said Iraq didn't have WMD. That's what go Wilson in trouble, remember?

Alan
WN4HOG

4482. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 13:29:02 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <yQbmg.226425$Fs1.129824@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57523

Mike Coslo wrote:
> Richard Harrison wrote:
>> Gene W4SZ wrote:
>> "You have not offered a single reference beyond the ARRL Handbook that
>> supports your model for noise generation." (Directed to Cecil)
>>
>> Particle discharge makes radio static noise.
>>
>> Look at Terman`s description of "precipitation static". Instead of
>> charged particles blowing in the wind and alighting on stationary
>> antennas, Terman describes aircraft and their antennas flying through
>> clouds of charged particles. The effect is the same.
>>
>> Terman`s solution: keep the antennas away from sharp points on the
>> aircraft which tend to noisly discharge the aircraft, insulate antenna
>> wires, and put Faraday shields on the directional antenna loops.
>
> a PDF reference
>
> http://tinyurl.com/h4o6u
>
> I've done a bit of googling on the subject, and find that most seem
> to favor this sort of explanation of the phenomenon. A notable exception
> is W8JI. To Tom's credit he performs some experiments along those lines.
> I'm not completely sure that I buy the conclusions, but I'll digest them
> a bit more. I would suggest that Tom may want to experiment with
> charging dust particles with that HV source rather than water.
>
> Some have suggested that Cecil's statements are invalid because he
> hasn't done the experiments - not so. His view represents the
> mainstream. The debunkers have the burden of proof.
>
> - 73 de Mike KB3EIA -

Mike,

Did you actually read the reference you provided? It offers complete
support for Tom's position and zero support for Cecil's position.

As usual around RRAA, this entire matter has morphed into all sorts of
side issues. The original and only point of controversy is whether the
so-called "precipitation static" is related to corona discharge or
rather to some sort of particle-by-particle charge transfer of the antenna.

Cecil claims that corona cannot exist in "fairweather" conditions, although there is no reason given. Therefore the particle-by-particle hypothesis is the only reasonable choice as the noise generator. The ARRL Handbook seems to go along with that idea, although not very explicitly. Other references, including Terman and the training document you provided say that corona discharge is responsible for the noise generation. W8JI agrees with that hypothesis.

73,
Gene
W4SZ

4483. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 13:32:50 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <5Ubmg.226445$Fs1.191002@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57525

Cecil Moore wrote:
> Gene Fuller wrote:
>> "The term precipitation static denotes a type of interference
>> frequently observed in an airplane passing through snow or rain. Under
>> such circumstances, the airplane may become electrically charged to
>> such a high potential with respect to the surrounding space that a
>> corona discharge breaks out at some sharp point on the plane. The
>> interference that this corona discharge produces with radio reception,
>> termed precipitation static, is particularly serious at short-wave and
>> lower frequencies."
>
> Corona causes RF noise for sure. But RF noise also occurs in
> the complete absence of corona. RF noise in the complete absence
> of corona is what we have been discussing. *Nobody* is arguing that
> corona doesn't cause RF noise. We are arguing that RF noise can be
> caused by something other than corona.

Cecil,

How do you know there is no corona discharge? Is there some special test
that tells one if corona discharge is present or not?

73,
Gene
W4SZ

4484. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 13:35:48 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <UWbmg.226458$Fs1.202316@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57426

Cecil Moore wrote:
>
> Yep, here's a quote from the mainstream:
>
> http://www.esda.org/basics/part1.cfm
>
> "Virtually all materials, including water and dirt particles
> in the air, can be triboelectrically charged."
>
> Given charged dirt (dust) particles encountering a bare-wire
> dipole, all the rest is simple physics.

Cecil,

You have now revealed the root cause of the controversy. Try using real physics instead of simple physics.

8-)

73,
Gene
W4SZ

4485. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 13:56:16 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <4ecmg.101400$H71.89899@newssvr13.news.prodigy.com>
Source record: 57427

Mike Coslo wrote:
> Tom Donaly wrote:
>
>> gravity wrote:
>>
>>> "Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
>>> news:LyFlg.69551$4L1.2176@newssvr11.news.prodigy.com...
>>>
>>>> Dave wrote:
>>>>
>>>>> Jim Kelley wrote:
>>>>>
>>>>>
>>>>>>
>>>>>> Tom Donaly wrote:
>>>>>>
>>>>>>
>>>>>>
>>>>>>> Where's the experimental evidence, Cecil?
>>>>>>
>>>>>>
>>>>>>
>>>>>>
>>>>>>
>>>>>> Ever heard of Ben Franklin? :-)
>>>>>>
>>>>>> 73, ac6xg
>>>>>>
>>>>>
>>>>> Every winter here in New England we run numerous experiments, every
>>>>> time
>>>>> I walk across the living room and touch a metal door knob.
>>>>>
>>>>> The US military has an ESD specification of 25 KV @ 5 KOhms from a
>>>>> healthy capacitor as a simulator.
>>>>>
>>>>> Electro static discharge on antennas has been around for years. It is
>>>
>>>
>>>
>>> real!
>>>
>>>>> Dry Climate and Wind are all that's needed. Now, is the Physics at the
>>>>> air molecule level [Oxygen, Nitrogen, etc.], ionized Oxygen or

>>>>> Nitrogen
>>>>> atoms, charged dust particle level [that just begs the issue ...
>>>>> how did
>>>>> the dust get charged?], Van De Graff level, etc.? Who knows?
>>>>>
>>>>> But, the antenna ESD is a very REAL effect. You can hypothesize the
>>>>> cause all day. To solve the problem at the system level, I added an
>>>>> ESD
>>>>> bleed into my antenna switches.
>>>>>
>>>>> I'm going to filter this thread to the circular file.
>>>>>
>>>>
>>>> No one said ESD didn't exist. But you hit the nail on the head so far
>>>> as wind caused ESD, "Who knows?" I don't, and neither does Cecil,
>>>> although he thinks he does.
>>>> 73,
>>>> Tom Donaly, KA6RUH
>>>
>>>
>>>
>>>
>>> i thought it came from distant thunderstorms?
>>>
>>> and if wind blows an ELF system around, it does get noisier. i believe
>>> that's due to physical movement of the antenna system.
>>>
>>> Gravity
>>>
>>>
>>
>> You could be right, who knows? Certainly not the people who
>> are afraid to experiment.
>
>
>
> Just as a point of info Tom. Do you perform experiments to prove or
> disprove matters to your satisfaction on everything before accepting it?
> That takes a very special person to be ultimately skeptical.
>
> Your posts would indicate that... or maybe that you just enjoy
> busting on Cecil. 8^)
>
> - 73 de Mike KB3EIA -

Actually, when it comes to some of the issues raised on this newsgroup,
yes, I do. I don't see why I should believe what Cecil makes up in his
head just because he makes it up in his head.

"I can't believe _that_!" said Alice.
"Can't you?" the Queen said in a pitying tone. "Try again: draw a

long breath, and shut your eyes."
Alice laughed. "There's no use trying," she said: "one can't believe impossible things."
"I daresay you haven't had much practice," said the Queen. "When I was your age, I always did it for half-an-hour a day. Why, sometimes I've believed as many as six impossible things before breakfast. There goes the shawl again!"

Cecil and the White Queen would get along well together.
73,
Tom Donaly, KA6RUH

4486. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 14:05:45 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Zmcmg.101401$H71.100175@newssvr13.news.prodigy.com>
Source record: 57428

Mike Coslo wrote:

> Richard Harrison wrote:
>
>> Gene W4SZ wrote:
>> "You have not offered a single reference beyond the ARRL Handbook that
>> supports your model for noise generation." (Directed to Cecil)
>>
>> Particle discharge makes radio static noise.
>>
>> Look at Terman`s description of "precipitation static". Instead of
>> charged particles blowing in the wind and alighting on stationary
>> antennas, Terman describes aircraft and their antennas flying through
>> clouds of charged particles. The effect is the same.
>>
>> Terman`s solution: keep the antennas away from sharp points on the
>> aircraft which tend to noisly discharge the aircraft, insulate antenna
>> wires, and put Faraday shields on the directional antenna loops.
>
>
> a PDF reference
>
> http://tinyurl.com/h4o6u
>
> I've done a bit of googling on the subject, and find that most seem
> to favor this sort of explanation of the phenomenon. A notable exception
> is W8JI. To Tom's credit he performs some experiments along those lines.
> I'm not completely sure that I buy the conclusions, but I'll digest them
> a bit more. I would suggest that Tom may want to experiment with
> charging dust particles with that HV source rather than water.
>
> Some have suggested that Cecil's statements are invalid because he
> hasn't done the experiments - not so. His view represents the
> mainstream. The debunkers have the burden of proof.
>
> - 73 de Mike KB3EIA -

It doesn't represent the mainstream. Go back and actually read the
references. Besides, if Cecil can't demonstrate the validity of his
views experimentally, even if there are some sources that agree
with him, he's just parroting the old wives.
73,
Tom Donaly, KA6RUH

4487. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 14:11:20 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <cscmg.101402$H71.60051@newssvr13.news.prodigy.com>
Source record: 57429

Cecil Moore wrote:

> Mike Coslo wrote:
>
>> Some have suggested that Cecil's statements are invalid because he
>> hasn't done the experiments - not so. His view represents the
>> mainstream. The debunkers have the burden of proof.
>
>
> Yep, here's a quote from the mainstream:
>
> http://www.esda.org/basics/part1.cfm
>
> "Virtually all materials, including water and dirt particles
> in the air, can be triboelectrically charged."
>
> Given charged dirt (dust) particles encountering a bare-wire
> dipole, all the rest is simple physics.

Prove that this causes radio frequency noise, Cecil.
73,
Tom Donaly, KA6RUH

4488. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 14:16:51 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44995516$0$11193$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57430
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:wh4mg.139$lv.109@fed1read12...
>
> "Slow Code" <sc@mo.mail> wrote in message
> news:cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net...
> > "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
> > news:YGKlg.104$lv.41@fed1read12:
> >
> > >
> > > "dxAce" <dxAce@milestones.com> wrote in message
> > > news:44969559.30D72920@milestones.com...
> > >
> > >>
> > >> Anybody who can't pass the minimal 5 WPM doesn't deserve a license.
> > >
> > > That's needlessly insulting.
> >
> >
> > No it isn't.
> >
> > Some things in life require you do a little work to enjoy their
benefits.
> > You don't want to learn CW, you shouldn't be allowed on ham radio.
> >
> > And Five words per minute ain't a code test. I can fart five words per
> > minute. Anyone that can't learn 5 wpm is either lazy or a tard and
should
> > stick to CB, FRS, and cell phones.
>
> I am a gainfully-employed degreed engineer with an above-average IQ
> and dyslexia. You are beneath contempt.
>
> *CLICK*
>
>

argumentum ad hominem. if you killfile him because you dislike him, that is
one thing. but if you say he is wrong because you are an engineer, that is
a logical fallacy.

this is why we need to add critical analysis to the engineering curriculum.
```

Gravity

4489. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 14:19:34 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449955b9$0$14993$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57431
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:5h4mg.138$lv.13@fed1read12...
>
> "pltrgyst" <pltrgyst@spamlessxhost.org> wrote in message
> news:p7sf921alq8bjm4rp0269lvrosks1458tf@4ax.com...
>
> Dyslexia cannot apply, unless it is dyslexia that affects the
> > remembered dot/dash pattern of a single character.
>
> Well, Larry, it took you to the last sentence, but you did actually lurch
> into the problem.
> Within seconds after learning what dah-dit-dit-dah means (or
> dit-dah-dah-dit, for that matter), I fail to
> accurately recognize them when they are sent again. Hundreds of tries --
> all failures, all mine.
>
> From your lofty perch, as a successful Morse Code user, you look down on
me.
> You could stand to learn a
> little humility. It would serve you and the amateur community better than
> dah-dit-dah any day.
>
>

should we get rid of the written test because people can't learn decibels
and basic algebra?

perhaps the CW test could have a question pool similar to the written. you
could memorize all the answers. i am actually dead serious. or standardize
the test so that the output is always like a QSO in super morse. there are
ways to make the test easier.

hmm, or we could have an option that you can view the CW in a spectrogram
and decode it visually.

Gravity

4490. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 14:20:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <LAcmg.153081$F_3.22176@newssvr29.news.prodigy.net>
Source record: 57432

Gene Fuller wrote:
> Did you actually read the reference you provided? It offers complete
> support for Tom's position and zero support for Cecil's position.

I cannot find any support for Tom's position except from
wishful thinking by a certain group of ignorant people here
on r.r.a.a.

> As usual around RRAA, this entire matter has morphed into all sorts of
> side issues. The original and only point of controversy is whether the
> so-called "precipitation static" is related to corona discharge or
> rather to some sort of particle-by-particle charge transfer of the antenna.

Yes, and the references I have provided indicate that natural
corona is impossible under clear-sky fairweather conditions.
You obviously have not read them.

> Cecil claims that corona cannot exist in "fairweather" conditions,
> although there is no reason given.

Again, obviously a false statement based on wishful thinking.
As proved by my references, the existence of corona requires
~100 uA per cm^2. Quoting from the previous NASA web page, for
the fairweather field, "the current is 10^-12 amps per square
meter."

Requirement for corona to exist:

100 uA per cm^2 = 10 amps per square meter

Available current during fairweather conditions:

10^-12 amps per square meter

Conclusion: During fairweather conditions, the current is
13 magnitudes too low for corona to exist.

> Therefore the particle-by-particle
> hypothesis is the only reasonable choice as the noise generator. The
> ARRL Handbook seems to go along with that idea, although not very
> explicitly. Other references, including Terman and the training document
> you provided say that corona discharge is responsible for the noise
> generation. W8JI agrees with that hypothesis.

Again, obviously a false statement based on wishful thinking.
Terman said no such thing about stationary antennas. The energy
for the corona referenced by Terman is coming from the movement
of the airplane, i.e. from the engine fuel. Corona requires a

supply of energy that simply doesn't exist for a stationary
receiving antenna under fairweather conditions.

If the airplane was not moving, i.e. not being supplied with
energy by the engines, the corona would probably not exist.
Comparing a moving airplane to a stationary antenna is apples
and oranges and is therefore an invalid argument.

If we supply the antenna with enough RF energy from a transmitter,
corona will surely occur. But a supply of extra energy from a
transmitter or from a moving airplane is not what we have been
discussing. We have been discussing fairweather conditions for
a stationary antenna.
--
73, Cecil http://www.qsl.net/w5dxp

4491. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 14:24:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <vEcmg.153082$F_3.7643@newssvr29.news.prodigy.net>
Source record: 57433

Gene Fuller wrote:
> How do you know there is no corona discharge?

Because under fairweather conditions, corona requires
13 magnitudes more current than is available. Please
see my other posting.
--
73, Cecil http://www.qsl.net/w5dxp

4492. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 14:26:52 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <MGcmg.153083$F_3.44865@newssvr29.news.prodigy.net>
Source record: 57434

Tom Donaly wrote:
> Actually, when it comes to some of the issues raised on this newsgroup,
> yes, I do. I don't see why I should believe what Cecil makes up in his
> head just because he makes it up in his head.

Do you really think I faked all those web page references
including one from NASA?
--
73, Cecil http://www.qsl.net/w5dxp

4493. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 14:28:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7Icmg.153084$F_3.111834@newssvr29.news.prodigy.net>
Source record: 57435

Tom Donaly wrote:
> Besides, if Cecil can't demonstrate the validity of his
> views experimentally, even if there are some sources that agree
> with him, he's just parroting the old wives.

Please describe your experiments for proving Maxwell's equations.
--
73, Cecil http://www.qsl.net/w5dxp

4494. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 14:32:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <%Lcmg.153086$F_3.102717@newssvr29.news.prodigy.net>
Source record: 57436

Tom Donaly wrote:
> Cecil Moore wrote:
>> Given charged dirt (dust) particles encountering a bare-wire
>> dipole, all the rest is simple physics.
>
> Prove that this causes radio frequency noise, Cecil.

Already have previously in this thread, Tom. I even
drew you guys some pictures. Maybe you should actually
read what I have posted instead of continuing to do
nothing but regurgitate your gut feelings over and
over and over ...
--
73, Cecil http://www.qsl.net/w5dxp

4495. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 15:06:26 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Sfdmg.153105$F_3.132648@newssvr29.news.prodigy.net>
Source record: 57437

Gene Fuller wrote:
> How do you know there is no corona discharge?

Because under passive fairweather conditions, corona requires 13 magnitudes more current than is available in nature. Please see my other posting.

And just a comment on your seeming innocent question above. You seem to be asking me to prove that there is no corona discharge when proving a negative is impossible. The onus of proof is upon the one(s) who assert(s) the positive position.

W8JI asserted that there is a corona discharge and you agreed with him. Therefore, the onus of proof is upon you. Please prove that corona can exist on a receiving antenna under passive fairweather conditions.

People are free to assert negatives at any time without any proof. For instance, if I assert that you cannot dunk a basketball, my assertion will remain true until you prove that you can dunk a basketball.
--
73, Cecil http://www.qsl.net/w5dxp

4496. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 15:19:49 UTC
From: richardharrison@webtv.net
Message-ID: <26434-44996395-4@storefull-3252.bay.webtv.net>
Source record: 57438

Gene, W4SZ wrote:
"Cecil claims that corona cannot exist in "fairweather" conditions, although there is no reason given."

My broadcast station experience includes blue-skys in advance of thunderstorms when guy-wire segements became so charged that the compression insulators separating the guy segments would flashover with loud bangs. These times would be windy. My conclusion is that charged air particles (ions) strike the guy wires charging them to high but varying potentials.

The arc or flashover between segments is a corona of short duration, not St. Elmo`s fire. It sounds like a gun shot. These may become so numerous that the sounds are as if a battle were occurring. The sounds are not unlike shorting the leads of a highly-charged large capacitor.

If leakage across the insulators were fast enough, rhere would be no bangs.

Best regards, Richard Harrison, KB5WZI

4497. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 15:26:43 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44996577$0$16388$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57439

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:7Icmg.153084$F_3.111834@newssvr29.news.prodigy.net...
> Tom Donaly wrote:
> > Besides, if Cecil can't demonstrate the validity of his
> > views experimentally, even if there are some sources that agree
> > with him, he's just parroting the old wives.
>
> Please describe your experiments for proving Maxwell's equations.
> --

you raise a good point.

first of all, Tom is wrong. not much of anything can be proven. in mathematics, you proceed from axioms, which are accepted assumptions. then you chain things together to result in proof. some proofs are more formal than others.

Russell and Whitehead attempted to axiomatize mathematics, which resulted in failure. Russell never did serious math again. Tom should read the work of Godel, Chatin, and Turing.

in M-theory (strings), there are many things which can't be proven at this time, and may never be proven. there are some experiments which never can be performed. this why we say string theory is unfalsifiable.

so toss out this idea of "proof", because it's a just a term that engineers think they know something about.

and i didn't even get started on epistemology.

Gravity

> 73, Cecil http://www.qsl.net/w5dxp

4498. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 15:38:05 UTC
From: Gerry Wheeler <gxwheeler@earthlink.net>
Message-ID: <xJdmg.9207$o4.6485@newsread2.news.pas.earthlink.net>
Source record: 57440

"Wayne" <mygarbagecan@verizon.net> wrote in message
news:j4zlg.6911$nS5.3987@trnddc07...
> 1. Try hollow fiberglass blank arrows. (if the available length is long
> enough) They used to be available at certain sporting goods stores, or
> you could buy an arrow and cut the ends off.

I spoke to a friend of mine who works in the archery business (Parker Bows),
and he says that hollow fiberglass is almost non-existant now. Everything
has switched over to carbon fiber tubes. He says the blanks are about 32"
long before being made into arrows, so that might limit their uses.
--
Gerry KG4NBB

4499. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 15:54:33 UTC
From: notbob <notbob@nothome.com>
Message-ID: <1aOdnQMcX-kk9gTZnZ2dnUVZ_qadnZ2d@comcast.com>
Source record: 57441
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On 2006-06-21, gravity <gravityzrainbow@yahoo.com> wrote:
>
> this is why we need to add critical analysis to the engineering curriculum.

It matters not. When management lacks the same talent, engineers will
be chosen for economic rather than practical reasons. Outsourcing to
India and H1B visas are proof. The fact that India has yet to produce
a single Intel or Microsoft or H-P or Sony is lost on those whose who
fawn over those rote trained hordes.

nb

4500. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 16:01:46 UTC
From: Eric the hair Oyen <Eric@thehairOyen.com>
Message-ID: <44996018$0$9926$88260bb3@free.teranews.com>
Source record: 57442
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"an_old_friend" <konstans@hotmail.com> wrote in message
news:1150857696.693445.194550@c74g2000cwc.googlegroups.com...
>
> Cecil Moore wrote:
>> Slow Code wrote:
>> > You don't want to learn CW, you shouldn't be allowed on ham radio.
>>
>> Are you really ready to kick hundreds of thousands of
>> no-code techs off of vhf/uhf?
> he is prepared but thankfully the FCC dsagrees
>
You're drunk on cum again, markie.

--
Posted via a free Usenet account from http://www.teranews.com
```

4501. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 16:15:14 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <mgemg.101443$H71.91149@newssvr13.news.prodigy.com>
Source record: 57443

gravity wrote:
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:7Icmg.153084$F_3.111834@newssvr29.news.prodigy.net...
>
>>Tom Donaly wrote:
>>
>>>Besides, if Cecil can't demonstrate the validity of his
>>>views experimentally, even if there are some sources that agree
>>>with him, he's just parroting the old wives.
>>
>>Please describe your experiments for proving Maxwell's equations.
>>--
>
>
> you raise a good point.
>
> first of all, Tom is wrong. not much of anything can be proven. in
> mathematics, you proceed from axioms, which are accepted assumptions. then
> you chain things together to result in proof. some proofs are more formal
> than others.
>
> Russell and Whitehead attempted to axiomatize mathematics, which resulted in
> failure. Russell never did serious math again. Tom should read the work of
> Godel, Chatin, and Turing.
>
> in M-theory (strings), there are many things which can't be proven at this
> time, and may never be proven. there are some experiments which never can
> be performed. this why we say string theory is unfalsifiable.
>
> so toss out this idea of "proof", because it's a just a term that engineers
> think they know something about.
>
> and i didn't even get started on epistemology.
>
> Gravity
>
>
>>73, Cecil http://www.qsl.net/w5dxp
>
>
>

If nothing can be proven, then how do you know I'm wrong? Besides,
it isn't a question of whether or not I'm right. It's a question of

whether or not to believe the fantasies of people who are unwilling to examine Nature. If you've really read and understood the mathematicians, you'd know that few, or none, of them care the slightest about the real world. It now seems that some physicists - the string theorists - have decided to move to Cloud Cuckoo Land (See Jonathon Swift) so they can live in a nice, comfortable world of well-paid solipsism, confident that a theory that is incapable of proof, is also incapable of disproof.
73,
Tom Donaly, KA6RUH

4502. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 16:23:47 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <noemg.101445$H71.11000@newssvr13.news.prodigy.com>
Source record: 57444

Cecil Moore wrote:

> Tom Donaly wrote:
>
>> Besides, if Cecil can't demonstrate the validity of his
>> views experimentally, even if there are some sources that agree
>> with him, he's just parroting the old wives.
>
>
> Please describe your experiments for proving Maxwell's equations.

Maxwell thought up Maxwell's equations, Cecil, you didn't. Heinrich Hertz, Farady, and others did the experimentation. Besides, you only have to turn on your radio to prove the equations valid. Even Maxwell knew that without experimental proof, his fine mathematics was only idle speculation.
73,
Tom Donaly, KA6RUH

4503. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 16:47:10 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <iKemg.4278$Td6.1753@trnddc08>
Source record: 57445

"Gerry Wheeler" <gxwheeler@earthlink.net> wrote in message
news:xJdmg.9207$o4.6485@newsread2.news.pas.earthlink.net...
> "Wayne" <mygarbagecan@verizon.net> wrote in message
> news:j4zlg.6911$nS5.3987@trnddc07...
>> 1. Try hollow fiberglass blank arrows. (if the available length is long
>> enough) They used to be available at certain sporting goods stores, or
>> you could buy an arrow and cut the ends off.
>
> I spoke to a friend of mine who works in the archery business (Parker
> Bows), and he says that hollow fiberglass is almost non-existant now.
> Everything has switched over to carbon fiber tubes. He says the blanks are
> about 32" long before being made into arrows, so that might limit their
> uses.
> --
> Gerry KG4NBB

Hi Gerry

Do you know the aproximate price of a blank?

Jerry
>
>

4504. The Google Hypothesis of Guru Elevation - The Guroogle

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 16:48:45 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <cnsi92ljs2nel8vjvr6rtt6b97sro6ilt1@4ax.com>
Source record: 57446

On Wed, 21 Jun 2006 16:23:47 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

>Cecil Moore wrote:
>
>> Tom Donaly wrote:
>>
>>> Besides, if Cecil can't demonstrate the validity of his
>>> views experimentally, even if there are some sources that agree
>>> with him, he's just parroting the old wives.
>>
>>
>> Please describe your experiments for proving Maxwell's equations.
>
>Maxwell thought up Maxwell's equations, Cecil, you didn't. Heinrich
>Hertz, Farady, and others did the experimentation. Besides, you only
>have to turn on your radio to prove the equations valid. Even Maxwell
>knew that without experimental proof, his fine mathematics was only
>idle speculation.

C'Mon Tom,

Cecil's objective is NOT about technical discourse, it is about having more posts than others and seeing his name responded to as hits. Of the last 212 posts, 87 are his and there are 13 other posters to share barely an average of 10 each.

You are responding to Cecil's usual forced expectation of others proving a body of science before he proceeds to measure something he maintains is commonly observable. His demands:fulfillments far exceed his 9:1 posting frequency.

So, as this is actually nothing new, it remains that his postings serve only the purpose of entertainment. Those that confuse them with insight or balanced correspondence (or believe in quantity = quality) are beyond hope.

73's
Richard Clark, KB7QHC

4505. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 17:00:39 UTC
From: user@private-mail-domain.invalid
Message-ID: <niaom3-397.ln1@chris.org>
Source record: 57447
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

In rec.radio.amateur.antenna Cecil Moore <mycall@hotmail.com> wrote:
: When I got my driver's license in 1952, the driving test
: was required to be taken on a stick shift vehicle. Do
: you think that should still be a requirement?

Yes.
--
73 Chris Cox, N0UK, G4JEC

Come and join us here in Bloomington, Minnesota, home of the Mall of America, July 27 & 28, 2006 for the 40th annual Central States VHF Society Conference which will be hosted once again by the NLRS.

4506. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 17:20:53 UTC
From: Gerry Wheeler <gxwheeler@earthlink.net>
Message-ID: <Vdfmg.9224$lp.8626@newsread3.news.pas.earthlink.net>
Source record: 57448

"Jerry Martes" <j.jmartes@verizon.net> wrote in message
news:iKemg.4278$Td6.1753@trnddc08...
> Do you know the aproximate price of a blank?

No, he didn't say. Sorry.

I suspect they're not generally available. From what I've heard before,
these are made with their super secret process, and each manufacturer is
slightly different. Not important when making an antenna, but the bow
hunters have their preferences.
--
Gerry

4507. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 17:26:28 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44998188$0$16347$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57449

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Sfdmg.153105$F_3.132648@newssvr29.news.prodigy.net...
> Gene Fuller wrote:
> > How do you know there is no corona discharge?
>
> Because under passive fairweather conditions, corona
> requires 13 magnitudes more current than is available
> in nature. Please see my other posting.
>
> And just a comment on your seeming innocent question
> above. You seem to be asking me to prove that there
> is no corona discharge when proving a negative is
> impossible. The onus of proof is upon the one(s) who
> assert(s) the positive position.
>
> W8JI asserted that there is a corona discharge and
> you agreed with him. Therefore, the onus of proof
> is upon you. Please prove that corona can exist
> on a receiving antenna under passive fairweather
> conditions.
>
> People are free to assert negatives at any time
> without any proof. For instance, if I assert that
> you cannot dunk a basketball, my assertion will
> remain true until you prove that you can dunk
> a basketball.

you can restate most negatives as positives. an example of this is a logical statement, in which case the contrapositive is always true. if P, then Q. if not Q, then not P. another example is Demorgan's theorem in set theory and electronics.

if you say that general relativity is wrong, the burden is on you to prove otherwise.

if the corona discharge theory is held by 90% of physicists and engineers, then anyone with a charged particle theory (a minority viewpoint) must do experimental verification or formulate a theoretical model.

in this case, i think that both Cecil and others should cite peer reviewed articles.

Gravity

4508. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 17:31:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <jofmg.69999$4L1.53997@newssvr11.news.prodigy.com>
Source record: 57450

Tom Donaly wrote:
> Cecil Moore wrote:
>> Please describe your experiments for proving Maxwell's equations.
>
> Maxwell thought up Maxwell's equations, Cecil, you didn't.

Aha, so you don't even follow your own advice. I quote conventional wisdom from the last 100 years of physics research and you ask me to to prove it experimentally.

Why do you try to hold me to a higher standard than the one to which you hold W8JI and yourself? Everything I have reported is old hat to competent physicists and competent engineers who know anything at all about atmospheric physics.

What you and others have asserted goes against 100 years of conventional wisdom and thousands of experiments in the field of atmospheric physics during those 100 years.

In fact, the only way to win your argument now is to prove that a Corona God really exists and is in control of fairweather fields.
--
73, Cecil http://www.qsl.net/w5dxp

4509. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 17:45:55 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <gvydnSmxLJVOGATZnZ2dnUVZ_qmdnZ2d@comcast.com>
Source record: 57451
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

Bill you are 100% wrong!

I am a right wing Republican, socially conservative, I attempt to be morally correct [that makes me politically incorrect quite often], and Conservative Christian [Clergyman]. I favor a very strong military [prior to my retirement from engineering, I served for 6 years as Program Chief Engineer on the USAF MX Missile (WS-118) RS/RV].

I believe the USA Constitution must be read and understood in the social context in which it was written. Changes should be by amendment not judicial agenda.

/s/ Rev. Dave , AKA W1MCE

See, labels can be 100% incorrect when you don't know the other person's life story.

Bill Turner wrote:

> ORIGINAL MESSAGE:
>
> On Tue, 20 Jun 2006 10:38:49 -0400, Dave <W1MCE@comcast.net> wrote:
>
>
>
>>NO! Don't label another person! It is wrong to label! Particularly when you do
>>not know any of his/her life's circumstances.
>
>
> ********** REPLY SEPARATOR **********
>
> Not true at all. For example I can label you as a Politically Correct,
> Warm-n-Fuzzy far leftist and be right on the money.
>
> Labels have their place.
>
> Bill, W6WRT
>

4510. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 17:49:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <VEfmg.70003$4L1.11537@newssvr11.news.prodigy.com>
Source record: 57452

gravity wrote:
> if the corona discharge theory is held by 90% of physicists and engineers,
> then anyone with a charged particle theory (a minority viewpoint) must do
> experimental verification or formulate a theoretical model.

100% of physicists and engineers hold the corona discharge
theory. 0.1% of posters to r.r.a.a seem to hold that corona
discharge is the only force at work in the entire universe
and caused the big bang. :-)

99.9% of competent physicists and competent
engineers know that corona is not the only cause of RF
noise. Unfortunately, r.r.a.a. has more than its fair share
of people who deny the past 100 years of scientific experimentation
and research into atmospheric physics and stick with their Corona
God religion.

Other assertions by that same new-world anti-conventional
wisdom crowd:

Reflected waves contain zero energy and are not the cause
of standing waves.

Standing-wave energy just sloshes from side to side in a
transmission line.

The distributed network model is gobbledygook.

Lumped-circuit analysis never fails.

There is zero delay through a real-world 75m bugcatcher coil.

Charged particle RF noise doesn't exist.
--
73, Cecil http://www.qsl.net/w5dxp

4511. Re: The Google Hypothesis of Guru Elevation - The Guroogle

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 17:50:31 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <HFfmg.119893$dW3.53171@newssvr21.news.prodigy.com>
Source record: 57453

Richard Clark wrote:
> On Wed, 21 Jun 2006 16:23:47 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>Cecil Moore wrote:
>>
>>
>>>Tom Donaly wrote:
>>>
>>>
>>>>Besides, if Cecil can't demonstrate the validity of his
>>>>views experimentally, even if there are some sources that agree
>>>>with him, he's just parroting the old wives.
>>>
>>>
>>>Please describe your experiments for proving Maxwell's equations.
>>
>>Maxwell thought up Maxwell's equations, Cecil, you didn't. Heinrich
>>Hertz, Farady, and others did the experimentation. Besides, you only
>>have to turn on your radio to prove the equations valid. Even Maxwell
>>knew that without experimental proof, his fine mathematics was only
>>idle speculation.
>
>
> C'Mon Tom,
>
> Cecil's objective is NOT about technical discourse, it is about having
> more posts than others and seeing his name responded to as hits. Of
> the last 212 posts, 87 are his and there are 13 other posters to share
> barely an average of 10 each.
>
> You are responding to Cecil's usual forced expectation of others
> proving a body of science before he proceeds to measure something he
> maintains is commonly observable. His demands:fulfillments far exceed
> his 9:1 posting frequency.
>
> So, as this is actually nothing new, it remains that his postings
> serve only the purpose of entertainment. Those that confuse them with
> insight or balanced correspondence (or believe in quantity = quality)
> are beyond hope.
>
> 73's
> Richard Clark, KB7QHC

You're absolutely right, Richard. Of course, if he can use all of
his rural debate tricks to get people who disagree with him
into abandoning the thread, then he thinks he can claim victory
as being the only combatant left on the field of honor. Notice how
he used the Mensa Society post to destroy the discourse? Cecil isn't
really serious, as you point out, and his posts are only valuable for
their entertainment value, as you also point out, but there are,
alas, people who are soft-minded enough not only to take him seriously,
but to agree with him as well. I think Roy had the right idea when
he plonked him. The rest of us should probably follow Roy's example.
73,
Tom Donaly, KA6RUH

4512. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 18:00:53 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <pPfmg.227578$Fs1.78311@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57454

Cecil Moore wrote:

>
>> Cecil claims that corona cannot exist in "fairweather" conditions,
>> although there is no reason given.
>
> Again, obviously a false statement based on wishful thinking.
> As proved by my references, the existence of corona requires
> ~100 uA per cm^2. Quoting from the previous NASA web page, for
> the fairweather field, "the current is 10^-12 amps per square
> meter."
>
> Requirement for corona to exist:
>
> 100 uA per cm^2 = 10 amps per square meter
>
> Available current during fairweather conditions:
>
> 10^-12 amps per square meter
>
> Conclusion: During fairweather conditions, the current is
> 13 magnitudes too low for corona to exist.
>

Cecil,

That's a good one. I believe the fairweather reference relates to the average current density over the entire earth. The corona reference (which does not even come close to being a "requirement") applies to a very localized environment. If the average current density over the entire earth increased to 100 uA per cm^2 I think it might be best to live far underground.

I have not measured currents, fields, or corona in the atmosphere, but I have some experience with high voltage equipment in laboratory environments. I can assure you that corona can occur even when there are no preexisting fields or currents in the surrounding air. High voltage and sharp emission points are quite adequate.

The fairweather current and the corona current are completely unrelated.

73,
Gene
W4SZ

4513. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 18:03:29 UTC
From: notbob <notbob@nothome.com>
Message-ID: <Qd2dndjiB-FsFATZnZ2dnUVZ_oidnZ2d@comcast.com>
Source record: 57455
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

On 2006-06-21, Dave <W1MCE@comcast.net> wrote:

> I served for 6 years as Program Chief Engineer on the USAF MX
> Missile (WS-118) RS/RV].

You bragging or complaining?

nb

4514. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 18:08:55 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <XWfmg.47379$mF2.4796@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57456

Cecil Moore wrote:
> Gene Fuller wrote:
>> How do you know there is no corona discharge?
>
> Because under passive fairweather conditions, corona
> requires 13 magnitudes more current than is available
> in nature. Please see my other posting.
>
> And just a comment on your seeming innocent question
> above. You seem to be asking me to prove that there
> is no corona discharge when proving a negative is
> impossible. The onus of proof is upon the one(s) who
> assert(s) the positive position.
>
> W8JI asserted that there is a corona discharge and
> you agreed with him. Therefore, the onus of proof
> is upon you. Please prove that corona can exist
> on a receiving antenna under passive fairweather
> conditions.
>

Cecil,

I have not said that I agree with W8JI or that corona is a necessary condition for radio noise.

What I have said is that I disagree with your half-baked fractured physics explanations.

Corona does not require ANY preexisting current, and certainly not the global "fairweather" current. The high fields near a sharp point will create all the corona current necessary.

73,
Gene
W4SZ

4515. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 18:12:56 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44998c6d$0$14505$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57457

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:VEfmg.70003$4L1.11537@newssvr11.news.prodigy.com...
> gravity wrote:
> > if the corona discharge theory is held by 90% of physicists and
engineers,
> > then anyone with a charged particle theory (a minority viewpoint) must
do
> > experimental verification or formulate a theoretical model.
>
> 100% of physicists and engineers hold the corona discharge
> theory. 0.1% of posters to r.r.a.a seem to hold that corona
> discharge is the only force at work in the entire universe
> and caused the big bang. :-)
>
> 99.9% of competent physicists and competent
> engineers know that corona is not the only cause of RF
> noise. Unfortunately, r.r.a.a. has more than its fair share
> of people who deny the past 100 years of scientific experimentation
> and research into atmospheric physics and stick with their Corona
> God religion.
>
> Other assertions by that same new-world anti-conventional
> wisdom crowd:
>
> Reflected waves contain zero energy and are not the cause
> of standing waves.
>
> Standing-wave energy just sloshes from side to side in a
> transmission line.
>
> The distributed network model is gobbledygook.
>
> Lumped-circuit analysis never fails.
>
> There is zero delay through a real-world 75m bugcatcher coil.
>
> Charged particle RF noise doesn't exist.

LMAO. i enjoyed reading this.

Gravity

> --
> 73, Cecil http://www.qsl.net/w5dxp

4516. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 18:18:36 UTC
From: "Dr. Noonian Soong" <soong@whatever>
Message-ID: <44998dc1$0$16322$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57458
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

darpa dave wrote:

>I served for 6 years as Program Chief Engineer on the USAF MX
> Missile (WS-118) RS/RV].

MX missiles destroyed my country, you insensitive clod!

Soong

4517. Re: The Google Hypothesis of Guru Elevation - The Guroogle

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 18:27:09 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <tq1j92tikfdcofj5om8p3pcokopnbbnkvj@4ax.com>
Source record: 57460

On Wed, 21 Jun 2006 17:50:31 GMT, "Tom Donaly"
<dtdonaly@sbcglobal.net> wrote:

> Notice how he used the Mensa Society post to destroy the discourse?

Hi Tom,

I notice past membership is one of those unprovable positive facts.

>there are,
>alas, people who are soft-minded enough not only to take him seriously,
>but to agree with him as well.

So rare so that Cecil has to offer they support him in secret email.
Even this is about hit counts when your thumb is on the scale. ;-)

>I think Roy had the right idea when
>he plonked him. The rest of us should probably follow Roy's example.

What's the fun in that? Pick one point and drill down; ignore the
side topics and drill down; discard the tailored citations and drill
down. Everyone of these drillings leads to a dry hole.
win-lose (classic American competition)

And yes, Mike, busting on Cecil is one pursuit here, we will leave it
to you to judge if it is indiscriminant and across the board, or fits
to threads dominated 9:1 by your Rodney King of the antennas.

Gimme another baton! I broke mine!
(classic American entertainment)

73's
Richard Clark, KB7QHC

4518. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 18:27:11 UTC
From: gwatts <gwatts@frontiernet.net>
Message-ID: <3cgmg.4072$Oh1.3246@news01.roc.ny>
Source record: 57459

Gerry Wheeler wrote:
> "Jerry Martes" <j.jmartes@verizon.net> wrote in message
> news:iKemg.4278$Td6.1753@trnddc08...
>
>> Do you know the aproximate price of a blank?
>
>
> No, he didn't say. Sorry.
>
> I suspect they're not generally available...

Try these (items RR348, RR360, RR372)
http://www.swpowerfence.com/cat20.htm

or these (items SM63, SM67 and SM69)
http://www.swpowerfence.com/cat11.htm

I get 'em at my local ag supply store,
- W8LNA

4519. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 18:40:26 UTC
From: Jozef <jozef@metaphoria.org>
Message-ID: <1150915116.378793@r2d2.vermontel.net>
Source record: 57461
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

Hi there.

Just a quick thought. I will not jump into the code vs. no-code fray. That said, I'd like to pass on an experience I had with a college professor friend of mine many years ago, now passed (Doc Bronfield WA2SMW). I learned CW at the age of 9 using flashing light. Now age 57. Got my novice at age 14 and general at age 15. The extra came easy as did 30 wpm plus CW. Not so with my friend Doc. He tried and tried, and then we realized that he had aural dyslexia. So I had an idea. With the help of local engineering types. They built a keyer that could sent different frequencies slightly for the dits and dahs. That was what he needed to get his code speed up and pass the general using the keyer during a FCC test. Here's what I believe should happen with CW. When I passed my extra there were no extra class operating privileges issued, but the FCC issued a nice Extra class certificate for the accomplishment (which I still have). I suggest we leave the 5 wpm code requirement in place as it now is, but go back to issuing the 20 wpm certificate by VE's. That would, perhaps, satisfy, the pro-code folk? It would reward the accomplishment without necessarily making it an Extra class requirement.

Jozef Hand-Boniakowski

WB2MIC

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:5h4mg.138$lv.13@fed1read12...
>
> "pltrgyst" <pltrgyst@spamlessxhost.org> wrote in message
> news:p7sf921alq8bjm4rp0269lvrosks1458tf@4ax.com...
>
> Dyslexia cannot apply, unless it is dyslexia that affects the
>> remembered dot/dash pattern of a single character.
>
> Well, Larry, it took you to the last sentence, but you did actually lurch
> into the problem.
> Within seconds after learning what dah-dit-dit-dah means (or
> dit-dah-dah-dit, for that matter), I fail to
> accurately recognize them when they are sent again. Hundreds of tries --
> all failures, all mine.
>
> From your lofty perch, as a successful Morse Code user, you look down on
> me.
> You could stand to learn a

> little humility. It would serve you and the amateur community better than
> dah-dit-dah any day.
>
>

4520. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 18:44:05 UTC
From: earlpearl@florida.news
Message-ID: <sd04i-sdk4-ssoikre@miami.fl.news>
Source record: 57462
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

In article <44988A7D.5070900@fuse.net>, jawod <jawod@fuse.net> wrote:
>t we're dealing with President Bush here. He don't
>> listen to Lazy Stupid people. If listened to what Lazy stupid people wanted,
>
>> we'd be cutting and running from Iraq like the Democrats want and he ain't
>> cutting and running.
>>
>> There's still hope. Send that email. Save amateur radio and shortwave.
>>
>> Earl
>Man, that is the most pathetic thing I've seen posted in a while.
>
>Don't get me started about Iraq.
>
>Where have you been for the last 3 years?
>
>Regarding "W": No, he "ain't" cuttin' and runnin'.
>
>But our boys are dying. And I'll be damned if I know why.

And your ass is a lot safer now under President Bush than it ever was with
Bill Clinton. Clinton was only interested in saving his own ass.

So email Bush. He might like to help us save ham radio as much as he likes
saving your ass from terrorists. 73

Earl

4521. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 18:57:44 UTC
From: Alan <alannc44@{nospam}ix.netcom.com>
Message-ID: <IEgmg.84053$Lg.60029@tornado.southeast.rr.com>
Source record: 57463
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

"Earl the pearl" <earlpearl@florida.news> wrote in message
news:sd04i-sdk4-ssoikre@miami.fl.news...
> And your ass is a lot safer now under President Bush than it ever was with
> Bill Clinton. Clinton was only interested in saving his own ass.

$400,000,000,000 and counting. Do you honestly feel safer? Not only do we have to deal with Iraq, but now we have to deal with N. Korea and Iran, situations that were exacerbated by lumping them into the "Axis of Evil", whatever that is.

>
> So email Bush. He might like to help us save ham radio as much as he
likes
> saving your ass from terrorists. 73

He'll sell out just like all the other politicians. If the energy companies want to run roughshod over our HF with BPL, or if cell phone companies want to buy our higher frequency bands, they will. The Golden Rule: He who has the gold rules.

Alan

4522. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 18:58:29 UTC
From: earlpearl@florida.news
Message-ID: <449w90d-34354odre-a$f09@miami.fl.news>
Source record: 57464
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
In article <1150890810.270718.211170@b68g2000cwa.googlegroups.com>, "an_old_friend"
<konstans@hotmail.com> wrote:
>
>Sal M. Onella wrote:
>> "Slow Code" <sc@mo.mail> wrote in message
>> news:cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net...
>> > "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
>> > news:YGKlg.104$lv.41@fed1read12:
>
>> > And Five words per minute ain't a code test. I can fart five words per
>> > minute.
>
>but look at what he says HE knows the test is uselesss he all but says
>there
>>
>> I am a gainfully-employed degreed engineer with an above-average IQ
>> and dyslexia. You are beneath contempt.
>of course he is
>>
>> *CLICK*

You and Sal M onella should hit it off just fine. With his dyslexia, and your
mis-spelled words, he's probably the only one here that can clearly read
and understand what you typed.

Earl
```

4523. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 19:01:28 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <5PidnTPC9tgaCgTZnZ2dnUVZ_vWdnZ2d@comcast.com>
Source record: 57465
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

notbob wrote:

> On 2006-06-21, Dave <W1MCE@comcast.net> wrote:
>
>
>>I served for 6 years as Program Chief Engineer on the USAF MX
>>Missile (WS-118) RS/RV].
>
>
> You bragging or complaining?
>
> nb

Debunking a 'LABEL'

4524. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 19:03:58 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <5PidnTLC9tiABQTZnZ2dnUVZ_vWdnZ2d@comcast.com>
Source record: 57466
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

Dr. Noonian Soong wrote:

> darpa dave wrote:
>
>
>>I served for 6 years as Program Chief Engineer on the USAF MX
>>Missile (WS-118) RS/RV].
>
>
> MX missiles destroyed my country, you insensitive clod!
>
> Soong
>
>

MX missiles have never been launched operationally. They were decommissioned by treaty after the fall of the Soviet Union.

If they had been used WE wouldn't be here!

You are mistaken.

4525. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 19:15:06 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <129j6ltcabaei12@corp.supernews.com>
Source record: 57467
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

Dr. Noonian Soong wrote:
> darpa dave wrote:
>
>
>>I served for 6 years as Program Chief Engineer on the USAF MX
>>Missile (WS-118) RS/RV].
>
>
> MX missiles destroyed my country, you insensitive clod!
>
> Soong
>
>
In as much as the MX missile carries a hydrogen warhead I don't think
that Soong's country was destroyed by one.

4526. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 19:21:02 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1150917662.906840.60740@y41g2000cwy.googlegroups.com>
Source record: 57468
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

```
gravity wrote:
> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
> news:5h4mg.138$lv.13@fed1read12...
> >
> > "pltrgyst" <pltrgyst@spamlessxhost.org> wrote in message
> > news:p7sf921alq8bjm4rp0269lvrosks1458tf@4ax.com...
> >
> > Dyslexia cannot apply, unless it is dyslexia that affects the
> > > remembered dot/dash pattern of a single character.
> >
> > Well, Larry, it took you to the last sentence, but you did actually lurch
> > into the problem.
> > Within seconds after learning what dah-dit-dit-dah means (or
> > dit-dah-dah-dit, for that matter), I fail to
> > accurately recognize them when they are sent again. Hundreds of tries --
> > all failures, all mine.
> >
> > From your lofty perch, as a successful Morse Code user, you look down on
> me.
> > You could stand to learn a
> > little humility. It would serve you and the amateur community better than
> > dah-dit-dah any day.
> >
> >
>
> should we get rid of the written test because people can't learn decibels
> and basic algebra?
no bout honest does one need to have the Formulas for adding resistor
(and cap and inductors i) series and paralell memorized.. ithink more
question on operating practices rules and rules would better serve us
than data we unlikely to need to use suddenly in the feild
>
> perhaps the CW test could have a question pool similar to the written. you
> could memorize all the answers. i am actually dead serious. or standardize
> the test so that the output is always like a QSO in super morse. there are
> ways to make the test easier.
>
> hmm, or we could have an option that you can view the CW in a spectrogram
> and decode it visually.

I have offered such as an possible acomodation since I have in fact
done a few QSO's almost exactly that way (used a computer to decode
```

what it could and used my eye to fill in the blanks, that has me my 3 CW EME QSO) if alll I needed to do was decode a spectrgraph of Morse and had TIME to work on on without have to hold any of the QSO in my head I (believe) could do that (with some prep work of course)

I might also be just able to use the most extreme accomodation avalible letter by letter (which elimates what beomce quickly a major probem for me was the an I or 2 e's btw)but the VE teams around the last place I ived were unwilling with out and MD signing off and I only ever saw a phd and more likely MSSW about it , that these contacts in the distant past (since I have learned ways of coping on my own) Indeed Robeson made one of his early flaiming attack period on that very subject when in his stlaking of me he learned of my posting to various support forums for Dyslexics and othe rrelated condictions for asking "wht would a MD that does not deal with LDs need in in order to medical cerify the existance of the condiction, and Robeson a once very comon poster hasrenewed that flame attack several times since

I have never inquired of the team roud here since by the time I became settled enough to look into that the NPRM came out and since even those levels would take a extensive prep, it did not seem worth while since it seem clear we will son have at least No Code general if not Extra
>
> Gravity

4527. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 19:43:16 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <ojhmg.47659$fb2.35851@newssvr27.news.prodigy.net>
Source record: 57470

gravity wrote:
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:Sfdmg.153105$F_3.132648@newssvr29.news.prodigy.net...
>
>>Gene Fuller wrote:
>>
>>>How do you know there is no corona discharge?
>>
>>Because under passive fairweather conditions, corona
>>requires 13 magnitudes more current than is available
>>in nature. Please see my other posting.
>>
>>And just a comment on your seeming innocent question
>>above. You seem to be asking me to prove that there
>>is no corona discharge when proving a negative is
>>impossible. The onus of proof is upon the one(s) who
>>assert(s) the positive position.
>>
>>W8JI asserted that there is a corona discharge and
>>you agreed with him. Therefore, the onus of proof
>>is upon you. Please prove that corona can exist
>>on a receiving antenna under passive fairweather
>>conditions.
>>
>>People are free to assert negatives at any time
>>without any proof. For instance, if I assert that
>>you cannot dunk a basketball, my assertion will
>>remain true until you prove that you can dunk
>>a basketball.
>
>
> you can restate most negatives as positives. an example of this is a
> logical statement, in which case the contrapositive is always true. if P,
> then Q. if not Q, then not P. another example is Demorgan's theorem in set
> theory and electronics.
>
> if you say that general relativity is wrong, the burden is on you to prove
> otherwise.
>
> if the corona discharge theory is held by 90% of physicists and engineers,
> then anyone with a charged particle theory (a minority viewpoint) must do
> experimental verification or formulate a theoretical model.
>
> in this case, i think that both Cecil and others should cite peer reviewed

> articles.
>
> Gravity
>
>

Don't be an ass, Gravity.
73,
Tom Donaly, KA6RUH

4528. Re: ULF antennas

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 19:46:41 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1150918493_2389@sp6iad.superfeed.net>
Source record: 57469

gravity wrote:
> i've been considering an antenna for the audio frequency range plus 1 to 20
> hz. basically a big coil would work.
>
> i've thought about using a steel drum, but i don't have room for that in my
> new QTH. mu metal rods would be very expensive, even ferrite would be
> expensive for an 100,000 turn antenna.
>
> not sure what to use. maybe steel core.
>
> Gravity
>
>

You can always use an active antenna.

Here's one the claims performance from
30 Hz to 50 MHz.

www.ets-lindgren.com/manuals/3301B.pdf

Chuck

4529. Re: The Google Hypothesis of Guru Elevation - The Guroogle

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 19:58:39 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Pxhmg.47662$fb2.25982@newssvr27.news.prodigy.net>
Source record: 57471

Richard Clark wrote:

> On Wed, 21 Jun 2006 17:50:31 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>Notice how he used the Mensa Society post to destroy the discourse?
>
>
> Hi Tom,
>
> I notice past membership is one of those unprovable positive facts.
>
>
>>there are,
>>alas, people who are soft-minded enough not only to take him seriously,
>>but to agree with him as well.
>
>
> So rare so that Cecil has to offer they support him in secret email.
> Even this is about hit counts when your thumb is on the scale. ;-)
>
>
>>I think Roy had the right idea when
>>he plonked him. The rest of us should probably follow Roy's example.
>
>
> What's the fun in that? Pick one point and drill down; ignore the
> side topics and drill down; discard the tailored citations and drill
> down. Everyone of these drillings leads to a dry hole.
> win-lose (classic American competition)
>
> And yes, Mike, busting on Cecil is one pursuit here, we will leave it
> to you to judge if it is indiscriminant and across the board, or fits
> to threads dominated 9:1 by your Rodney King of the antennas.
>
> Gimme another baton! I broke mine!
> (classic American entertainment)
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,
Cecil is impervious to criticism, anyway. As long as he can
think up "objection stoppers," as fast as an encyclopedia salesman

selling his wares to impoverished housewives, no one can get
to him.
73,
Tom Donaly, KA6RUH

4530. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 20:09:47 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e7c99a$8qc$1@news.service.uci.edu>
Source record: 57472

Tom Donaly wrote:

> Don't be an ass, Gravity.
> 73,
> Tom Donaly, KA6RUH

Hi Tom,

Consider the origin and nature of shot noise.

73, ac6xg

4531. Re: PVC for antenna construction ?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 20:25:51 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <jXhmg.13125$nS5.4508@trnddc07>
Source record: 57473

"Gerry Wheeler" <gxwheeler@earthlink.net> wrote in message
news:Vdfmg.9224$lp.8626@newsread3.news.pas.earthlink.net...
> "Jerry Martes" <j.jmartes@verizon.net> wrote in message
> news:iKemg.4278$Td6.1753@trnddc08...
>> Do you know the aproximate price of a blank?
>
> No, he didn't say. Sorry.
>
> I suspect they're not generally available. From what I've heard before,
> these are made with their super secret process, and each manufacturer is
> slightly different. Not important when making an antenna, but the bow
> hunters have their preferences.
> --
> Gerry

Hi Gerry

Thanks for the reply. I was actually being lazy. I could probably have searched for a source of fiberglass tubes, but I thought I'd take advantage of your familiarity.

Jerry

4532. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 20:33:31 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <v2img.26514$YI2.10664@trnddc01>
Source record: 57474

Cecil Moore wrote:
> John - KD5YI wrote:
>
>> Cecil Moore wrote:
>>
>>> "In contrast to rain, precipitation currents carried to
>>> ground by snow are usually always negative under
>>> potential gradients between +/- 800 V/m (Chalmers 1956).
>>> The total precipitation current around the earth is
>>> estimated to be about +340 amperes."
>>
>>
>> So that would give a current of about 0.06 picoamperes per square foot?
>
>
> I assume that's an average value. Localized values could
> be much less or much greater.

It is the 340 amperes divided by the surface area of the earth in square
feet. I guess you could call it an average.

So, "much greater" than 6E-14 would be what, maybe 6E-13?

4533. FSM software update - V1.11

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 21:55:10 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <chfj929rkea5vb2v6edn0vp0dft3ucfd1l@4ax.com>
Source record: 57475
Cross-posted to: aus.radio.amateur.misc,rec.radio.amateur.antenna

Announcing release of FSM V1.11.

FSM (for Field Strength Meter) is a software application that extends a conventional SSB receiver to allow measurement and calculation of field strength of radio signals, noise or interference. FSM is a software implementation of the technique described by Ed Hare of the ARRL in "Manual Testing of Field-Strength Levels Using Conventional Receivers" dated August 2004 .

Version 1.11 revises the algorithm for calculating receive power from the Step 2 and Step 3 measurements to increase FSM's flexibility and accuracy at lower measurement levels, allowing measurement of noise levels with Fa below 0dB.

This has allowed relaxation of some limits that were needed for the older algorithm, and an associated change to the calibration utility. Documentation has been updated accordingly.

For more about FSM, go to http://www.vk1od.net/fsm/ .

To download the installation package, go to http://www.vk1od.net/fsm/support.htm .

FSM announcements are published in the VK1OD-Newsletter. To subscribe to the newsletter, send email to VK1OD-Newsletter-subscribe@yahoogroups.com

Owen

--

4534. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 21:57:12 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <Ygjmg.153274$F_3.27854@newssvr29.news.prodigy.net>
Source record: 57326

Jim Kelley wrote:
> Tom Donaly wrote:
>
>> Don't be an ass, Gravity.
>> 73,
>> Tom Donaly, KA6RUH
>
>
> Hi Tom,
>
> Consider the origin and nature of shot noise.
>
> 73, ac6xg
>

Is that what's causing the Santa Ana wind interference?
73,
Tom Donaly, KA6RUH

4535. Re: FSM software update - V1.11

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 22:56:09 UTC
From: Ron <wa0kds@yahoo.com>
Message-ID: <4499D014.2030002@yahoo.com>
Source record: 57327
Cross-posted to: aus.radio.amateur.misc,rec.radio.amateur.antenna

OK I downloaded it and now it says it is not a valid Win32 Application
??????????????????????

Ron WA0KDS

Owen Duffy wrote:
> Announcing release of FSM V1.11.
>
> FSM (for Field Strength Meter) is a software application that extends
> a conventional SSB receiver to allow measurement and calculation of
> field strength of radio signals, noise or interference. FSM is a
> software implementation of the technique described by Ed Hare of the
> ARRL in "Manual Testing of Field-Strength Levels Using Conventional
> Receivers" dated August 2004 .
>
> Version 1.11 revises the algorithm for calculating receive power from
> the Step 2 and Step 3 measurements to increase FSM's flexibility and
> accuracy at lower measurement levels, allowing measurement of noise
> levels with Fa below 0dB.
>
> This has allowed relaxation of some limits that were needed for the
> older algorithm, and an associated change to the calibration utility.
> Documentation has been updated accordingly.
>
> For more about FSM, go to http://www.vk1od.net/fsm/ .
>
> To download the installation package, go to
> http://www.vk1od.net/fsm/support.htm .
>
> FSM announcements are published in the VK1OD-Newsletter. To subscribe
> to the newsletter, send email to
> VK1OD-Newsletter-subscribe@yahoogroups.com
>
> Owen
>
> --

4536. Re: The Google Hypothesis of Guru Elevation - The Guroogle

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 23:38:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ULkmg.70227$4L1.8257@newssvr11.news.prodigy.com>
Source record: 57328

Tom Donaly wrote:
> You're absolutely right, Richard. Of course, if he can use all of
> his rural debate tricks to get people who disagree with him
> into abandoning the thread, then he thinks he can claim victory
> as being the only combatant left on the field of honor. Notice how
> he used the Mensa Society post to destroy the discourse? Cecil isn't
> really serious, as you point out, and his posts are only valuable for
> their entertainment value, as you also point out, but there are,
> alas, people who are soft-minded enough not only to take him seriously,
> but to agree with him as well. I think Roy had the right idea when
> he plonked him. The rest of us should probably follow Roy's example.

Ad hominem character assignation instead of any technical
content?
--
73, Cecil http://www.qsl.net/w5dxp

4537. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 23:40:16 UTC
From: jawod <jawod@fuse.net>
Message-ID: <4499D8E0.4090506@fuse.net>
Source record: 57330
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

>
>
>
> And your ass is a lot safer now under President Bush than it ever was with
> Bill Clinton. Clinton was only interested in saving his own ass.
>
> All of our collective asses were MUCH safer in the Clinton years. How
safe can you be when the "elected" President is less powerful than his
Vice President?

Who went to the bunker on 9/11? Cheney, not Bush.

4538. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 23:41:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gOkmg.70233$4L1.13960@newssvr11.news.prodigy.com>
Source record: 57329

Gene Fuller wrote:
> I can assure you that corona can occur even when there are
> no preexisting fields or currents in the surrounding air. High voltage
> and sharp emission points are quite adequate.

Of course, the high voltage is a *man-made energy source* having
absolutely nothing to do with what we are talking about. Will
your diversions and obfuscations never end?
--
73, Cecil http://www.qsl.net/w5dxp

4539. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 23:42:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <xPkmg.70252$4L1.38532@newssvr11.news.prodigy.com>
Source record: 57331

Gene Fuller wrote:
> Corona does not require ANY preexisting current, and certainly not the
> global "fairweather" current. The high fields near a sharp point will
> create all the corona current necessary.

Where is the energy coming from?
--
73, Cecil http://www.qsl.net/w5dxp

4540. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 23:51:00 UTC
From: Slow Code <sc@mo.mail>
Message-ID: <EXkmg.14$ii.2@newsread3.news.pas.earthlink.net>
Source record: 57333
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Cecil Moore <mycall@hotmail.com> wrote in
news:r82mg.119731$dW3.70506@newssvr21.news.prodigy.com:

> Slow Code wrote:
>> You don't want to learn CW, you shouldn't be allowed on ham radio.
>
> Are you really ready to kick hundreds of thousands of
> no-code techs off of vhf/uhf?

No, Not kick them off. When their license comes up for renewel they
would have to pass the 5 wpm code element that Techs used to have to
take to get the license.

sc

4541. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 23:51:01 UTC
From: Slow Code <sc.h@m.mail>
Message-ID: <FXkmg.15$ii.9@newsread3.news.pas.earthlink.net>
Source record: 57334
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"Sal M. Onella" <salmonella@food.poisoning.org> wrote in
news:wh4mg.139$lv.109@fed1read12:

>
> "Slow Code" <sc@mo.mail> wrote in message
> news:cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net...
>> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
>> news:YGKlg.104$lv.41@fed1read12:
>>
>> >
>> > "dxAce" <dxAce@milestones.com> wrote in message
>> > news:44969559.30D72920@milestones.com...
>> >
>> >>
>> >> Anybody who can't pass the minimal 5 WPM doesn't deserve a license.
>> >
>> > That's needlessly insulting.
>>
>>
>> No it isn't.
>>
>> Some things in life require you do a little work to enjoy their
>> benefits. You don't want to learn CW, you shouldn't be allowed on ham
>> radio.
>>
>> And Five words per minute ain't a code test. I can fart five words per
>> minute. Anyone that can't learn 5 wpm is either lazy or a tard and
>> should stick to CB, FRS, and cell phones.
>
> I am a gainfully-employed degreed engineer with an above-average IQ
> and dyslexia. You are beneath contempt.

Anyone else hear a tiny violin playing?

sc
```

4542. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-21 23:51:03 UTC
From: Slow Code <sc.h@m.mail>
Message-ID: <HXkmg.16$ii.11@newsread3.news.pas.earthlink.net>
Source record: 57335
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in
news:zh4mg.140$lv.36@fed1read12:

>
> "Slow Code" <sc@mo.mail> wrote in message
> news:fO%lg.8938$lp.3438@newsread3.news.pas.earthlink.net...
>
>>
>>
>> When code goes away, you're going to be the one that tells us the
>> written is too hard.
>
>
> You wish! Of the 55 questions on my Technician License exam,
> I missed one. ONE!

I got a 100% when I took the Technician.

sc

4543. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 00:24:11 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <Lqlmg.48213$mF2.30469@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57336

Cecil Moore wrote:
> Gene Fuller wrote:
>> I can assure you that corona can occur even when there are no
>> preexisting fields or currents in the surrounding air. High voltage
>> and sharp emission points are quite adequate.
>
> Of course, the high voltage is a *man-made energy source* having
> absolutely nothing to do with what we are talking about. Will
> your diversions and obfuscations never end?

Cecil,

You are seriously confused. The energy source is completely irrelevant.
The only issue is what causes the noise heard in the receiver.

73,
Gene
W4SZ

4544. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 00:27:55 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <fulmg.229186$Fs1.159892@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57337

Cecil Moore wrote:
> Gene Fuller wrote:
>> Corona does not require ANY preexisting current, and certainly not the
>> global "fairweather" current. The high fields near a sharp point will
>> create all the corona current necessary.
>
> Where is the energy coming from?

Who cares? Do you have your energy hammer out? Does every problem need
to look like an energy nail?

73,
Gene
W4SZ

4545. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 00:48:05 UTC
From: an old friend <kb9queer@stoopid.up>
Message-ID: <39bck.8c8.17.1@news.alt.net>
Source record: 57332
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

"jawod" <jawod@fuse.net> wrote in message news:4499D8E0.4090506@fuse.net...

>
>
>
> And your ass is a lot safer now under President Bush than it ever was with
> Bill Clinton. Clinton was only interested in saving his own ass.
>
> All of our collective asses were MUCH safer in the Clinton years. How
safe can you be when the "elected" President is less powerful than his
Vice President?

Who went to the bunker on 9/11? Cheney, not Bush.

>
How many times were we attacked under the Clinton regime and what was done
to the attackers?

4546. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 01:22:52 UTC
From: "J. D. B." <duffyb01@nospamfuse.net>
Message-ID: <ec9c2$4499f0eb$d06640f9$2390@FUSE.NET>
Source record: 57338
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

I would also add that you must be able to prove that you can trace your ancestry back to 1776 or earlier in order to hold an Amateur Radio License as only decedents, of real Americans around at the time of the Revolutionary War, should be allowed to possess a license.

Also, that you not be allowed to operate any tube gear. It sucks too much electricity and is helping to destroy the environment.

You must build your own equipment. Ban all manufacturers of amateur gear, unless of course, it is made in America in which case a 200% tariff should be added to help fund the FCC with all this additional testing that you would now require.

All amateur operators must also pass a spelling and grammar test. They must not be overweight and have perfect hygiene and never smell at any hamfests - especially Dayton.

Once you start riding an electric cart at Dayton or any other hamfest, your Amateur Radio license is immediately revoked.

There are probably some other items that need to be added to the list of requirements, but I will submit those to these groups later.

Earl the pearl wrote:
> Dear Mr President:
>
> The FCC has been dumbing down ham radio for several years now. This has
> hurt the integrity of the service and is bad for America. They are
> planning to dumb it down again really soon now and their plan will make
> ham radio like CB and it will be bad for America. We already have one CB
> service on HF, we don't need two. Please pressure the FCC to endorse the
> following items for the good of the service and America. I wish you could
> run again for a third term, I would vote for you. I'm glad Al Gore wasn't
> able to steal the election, and John Kerry would have been a disaster, he'd
> be kissing terrorist butts and brown nosing them. Thanks for the fine
> job you're doing protecting and leading America.
>
> Signed
> (Your name & callsign)
>
>
> No more automatic renewals. Individuals must retest and pass all elements
> required for their license class.
>
> The passing score for written exams needs to be raised to 85%.

>
> Code elements should be 13 wpm for General, and 20 wpm for Extra.
>
> Make the no-code license one year non-renewable.
>

4547. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 01:28:54 UTC
From: w8ji@akorn.net
Message-ID: <1150939734.558036.316100@g10g2000cwb.googlegroups.com>
Source record: 57339

Gene Fuller wrote:
> Cecil Moore wrote:
> > Gene Fuller wrote:
> >> Corona does not require ANY preexisting current, and certainly not the
> >> global "fairweather" current. The high fields near a sharp point will
> >> create all the corona current necessary.
> >
> > Where is the energy coming from?
>
>
> Who cares? Do you have your energy hammer out? Does every problem need
> to look like an energy nail?
>
> 73,
> Gene
> W4SZ

I've been away for a few days. Did Cecil ever figure out what was wrong
with his idea about the folded dipole?

I was hoping someone else would walk him through it. Or is he stuck on
something else now?

73 Tom

4548. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 01:43:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <uBmmg.119987$dW3.51725@newssvr21.news.prodigy.com>
Source record: 57340

Gene Fuller wrote:
> The only issue is what causes the noise heard in the receiver.

Receiver noise has many causes. Corona is certainly one
of them. There is absolutely no argument about that.

Please provide a reference that says clear-sky wind-
driven charged dust particles cannot cause receiver
noise.
--
73, Cecil http://www.qsl.net/w5dxp

4549. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 01:56:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <QMmmg.119991$dW3.72419@newssvr21.news.prodigy.com>
Source record: 57341

w8ji@akorn.net wrote:
> I've been away for a few days. Did Cecil ever figure out what was wrong
> with his idea about the folded dipole?

Nothing wrong with that idea. I implemented that idea when
I was in Arizona to eliminate arcing at the coax connector
which certainly reduced the noise level.
--
73, Cecil http://www.qsl.net/w5dxp

4550. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 02:24:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Ebnmg.119997$dW3.103824@newssvr21.news.prodigy.com>
Source record: 57342

w8ji@akorn.net wrote:
> I've been away for a few days.

Then you probably need to go back and read the web references
that I have posted in your absence. Here's one of them:

http://www.esda.org/basics/part1.cfm

"Virtually all materials, including water and
dirt particles in the air,
can be triboelectrically charged."

Since dirt particles in the air can be charged then they
can also transfer their charges to bare-wire dipoles which
obviously causes noise.

Also, it seems to me that you have been confusing corona
with the electric fairweather field. A couple of days
ago, I posted about six web references on the subject.
--
73, Cecil http://www.qsl.net/w5dxp

4551. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 02:30:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Pgnmg.119998$dW3.31771@newssvr21.news.prodigy.com>
Source record: 57343

Gene Fuller wrote:
> Cecil Moore wrote:
>> Where is the (corona) energy coming from?
>
> Who cares?

Probably anyone reading this thread. On a clear sky day,
what is the source of energy for your sustained
100 uA/cm^2 corona discharge? That energy has to come
from somewhere. Where does your corona energy come from?
--
73, Cecil http://www.qsl.net/w5dxp

4552. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 03:06:19 UTC
From: George <forvmman@msn.com>
Message-ID: <1150945579.428953.99620@g10g2000cwb.googlegroups.com>
Source record: 57344
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

jimp@specsol.spam.sux.com wrote:
> In rec.radio.amateur.antenna Cecil Moore <mycall@hotmail.com> wrote:
> > Earl the pearl wrote:
> > > I'm glad Al Gore wasn't
> > > able to steal the election, and John Kerry would have been a disaster, he'd
> > > be kissing terrorist butts and brown nosing them.
>
> > And please, President Bush, don't allow the FCC to issue an
> > amateur radio license to illiterates.
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
>
> Who would be left to post to rec.radio.amateur.policy if all the
> babbling idiots were no longer licensed?
>
> --
> Jim Pennino
>
> Remove .spam.sux to reply.

>From WB3HUH
Another positive side of the proposal is that we could eliminate a lot
of tickets. Think how quiet the bands would be for a little
while....MUCH LESS QRM! Of course that would change when the FCC
reassigned (auctioned) those now unused freqs to the commercial users.
Heck, you could do BPL through out the old ham spectrum. There wouldn't
be enough Ham clout left to stop it. Who would even notice! Cheap
Internet! GO FOR IT ! .... IMs instead of QSOs.......Great idea.
Keep those wheels turning. You might luck into another winner of an
idea! George

4553. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 03:44:29 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <xmomg.418$RD.185@fed1read08>
Source record: 57345
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"gravity" <gravityzrainbow@yahoo.com> wrote in message
news:44995516$0$11193$892e7fe2@authen.yellow.readfreenews.net...

< snip >

> >
>
> argumentum ad hominem. if you killfile him because you dislike him, that
is
> one thing. but if you say he is wrong because you are an engineer, that
is
> a logical fallacy.
>
> this is why we need to add critical analysis to the engineering
curriculum.

Yeah but in newsgroups argumentum ad hominem is practically the order of the
day.
I only offered my education to refute the "lazy or a tard [sic]" cheap shot.

4554. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 04:55:28 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449a2308$0$16372$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57346

<w8ji@akorn.net> wrote in message
news:1150939734.558036.316100@g10g2000cwb.googlegroups.com...
>
> Gene Fuller wrote:
> > Cecil Moore wrote:
> > > Gene Fuller wrote:
> > >> Corona does not require ANY preexisting current, and certainly not
the
> > >> global "fairweather" current. The high fields near a sharp point will
> > >> create all the corona current necessary.
> > >
> > > Where is the energy coming from?
> >
> >
> > Who cares? Do you have your energy hammer out? Does every problem need
> > to look like an energy nail?
> >
> > 73,
> > Gene
> > W4SZ
>
>
> I've been away for a few days. Did Cecil ever figure out what was wrong
> with his idea about the folded dipole?
>
> I was hoping someone else would walk him through it. Or is he stuck on
> something else now?

he seems to be writing a manifesto entitled "Particle Theory for Dummies"
with subtitle "W8JI is wrong!".

Gravity

>
> 73 Tom
>

4555. Re: FSM software update - V1.11

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 05:44:48 UTC
From: gcd <gcd.deletemelbnospam@melbnospam.iimetro.com.au>
Message-ID: <129kbidib8hvs41@corp.supernews.com>
Source record: 57347
Cross-posted to: aus.radio.amateur.misc,rec.radio.amateur.antenna

it may have not downloaded all 1mb, try again.

1st time i downloaded, it only downloaded about 1/4 of the 1MB for some reason - indicated 1mb file but terminated 1/4 way through. 2nd attempt got it all

Greg

"Ron" <wa0kds@yahoo.com> wrote in message news:4499D014.2030002@yahoo.com...
> OK I downloaded it and now it says it is not a valid Win32 Application
> ??????????????????????
>
> Ron WA0KDS
>
>
> Owen Duffy wrote:
>> Announcing release of FSM V1.11.
>>
>> FSM (for Field Strength Meter) is a software application that extends
>> a conventional SSB receiver to allow measurement and calculation of
>> field strength of radio signals, noise or interference. FSM is a
>> software implementation of the technique described by Ed Hare of the
>> ARRL in "Manual Testing of Field-Strength Levels Using Conventional
>> Receivers" dated August 2004 .
>>
>> Version 1.11 revises the algorithm for calculating receive power from the
>> Step 2 and Step 3 measurements to increase FSM's flexibility and accuracy
>> at lower measurement levels, allowing measurement of noise levels with Fa
>> below 0dB.
>>
>> This has allowed relaxation of some limits that were needed for the older
>> algorithm, and an associated change to the calibration utility.
>> Documentation has been updated accordingly.
>>
>> For more about FSM, go to http://www.vk1od.net/fsm/ .
>>
>> To download the installation package, go to
>> http://www.vk1od.net/fsm/support.htm .
>>
>> FSM announcements are published in the VK1OD-Newsletter. To subscribe
>> to the newsletter, send email to
>> VK1OD-Newsletter-subscribe@yahoogroups.com
>>
>> Owen

>>
>> --

4556. Re: FSM software update - V1.11

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 06:25:46 UTC
From: Ron <wa0kds@yahoo.com>
Message-ID: <449A397B.2060706@yahoo.com>
Source record: 57348
Cross-posted to: aus.radio.amateur.misc,rec.radio.amateur.antenna

Yup it took me 25 tries finally to get it downloaded..

Ron WA0KDS

gcd wrote:
> it may have not downloaded all 1mb, try again.
>
> 1st time i downloaded, it only downloaded about 1/4 of the 1MB for some
> reason - indicated 1mb file but terminated 1/4 way through. 2nd attempt got
> it all
>
> Greg
>
>
> "Ron" <wa0kds@yahoo.com> wrote in message news:4499D014.2030002@yahoo.com...
>
>>OK I downloaded it and now it says it is not a valid Win32 Application
>>??????????????????????
>>
>>Ron WA0KDS
>>
>>
>>Owen Duffy wrote:
>>
>>>>Announcing release of FSM V1.11.
>>>
>>>FSM (for Field Strength Meter) is a software application that extends
>>>a conventional SSB receiver to allow measurement and calculation of
>>>field strength of radio signals, noise or interference. FSM is a
>>>software implementation of the technique described by Ed Hare of the
>>>ARRL in "Manual Testing of Field-Strength Levels Using Conventional
>>>Receivers" dated August 2004 .
>>>
>>>Version 1.11 revises the algorithm for calculating receive power from the
>>>Step 2 and Step 3 measurements to increase FSM's flexibility and accuracy
>>>at lower measurement levels, allowing measurement of noise levels with Fa
>>>below 0dB.
>>>
>>>This has allowed relaxation of some limits that were needed for the older
>>>algorithm, and an associated change to the calibration utility.
>>>Documentation has been updated accordingly.
>>>
>>>For more about FSM, go to http://www.vk1od.net/fsm/ .
>>>

>>>To download the installation package, go to
>>>http://www.vk1od.net/fsm/support.htm .
>>>
>>>FSM announcements are published in the VK1OD-Newsletter. To subscribe
>>>to the newsletter, send email to
>>>VK1OD-Newsletter-subscribe@yahoogroups.com
>>>
>>>Owen
>>>
>>>--
>
>
>

4557. Re: FSM software update - V1.11

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 06:53:28 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <5tek92pieu8nlcj0cagu952e9rm8vt20kp@4ax.com>
Source record: 57349
Cross-posted to: aus.radio.amateur.misc,rec.radio.amateur.antenna

On 21 Jun 2006 18:56:09 EDT, Ron <wa0kds@yahoo.com> wrote:

>OK I downloaded it and now it says it is not a valid Win32 Application
>??????????????????????

Some advice:

1. Check to see the download completed properly (ie that the file has not be truncated). It seems that some clients may not warn you if the download failed for some reason. FSMSetup.exe v1.11 should be exactly 1,062,400 bytes (right click the file name in explorer and click properties to get the exact file size).

2. Scan your computer (and the download) with an up to date and effective virus scanner, there are a number of viruses that exhibit these symptoms.

If you are confident that you do not have virus infection, the file FSMSetup.exe is actually a self extracting ZIP file. You should be able to open it with WINZIP, Powerarchiver, PKUNZIP etc (if you have one), extract the files to a temporary directory, and run the setup.exe file. That will bypass the issue that you seem to have with the self extractor.

If the file cannot be opened with ZIP, it is a pretty sure sign it has been corrupted (even if the length is correct).

Owen
--

4558. Re: FSM software update - V1.11

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 07:05:50 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <vpfk921hmjqq4i2gvh721uhqr45ipjkj8s@4ax.com>
Source record: 57350
Cross-posted to: aus.radio.amateur.misc,rec.radio.amateur.antenna

On 22 Jun 2006 02:25:46 EDT, Ron <wa0kds@yahoo.com> wrote:

>Yup it took me 25 tries finally to get it downloaded..

Well Ron, I am sorry you have had so much trouble.

I am at a loss to explain it, I have just downloaded it 10 times
without a hitch (they are all the correct size and pass a PKUNZIP -vt
test).

Owen
--

4559. antenna papers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 08:08:47 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449a5059$0$80513$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57351

any good antenna theory sites? i have taken emag and difeqs, but i need something that it is easy on the brane.

should i get the Kraus book?

TIA,

Gravity

4560. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 12:06:06 UTC
From: "Dr. Noonian Soong" <my@island>
Message-ID: <449a87fc$0$16357$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57352
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

"David G. Nagel" <nagel@core.com> wrote in message
news:129j6ltcabaei12@corp.supernews.com...

> In as much as the MX missile carries a hydrogen warhead I don't think
> that Soong's country was destroyed by one.
>

Dr. Nagel,

You please listen to me, I get PhD from big university. My university so expensive most American can't buy cafeteria lunch.

Long time ago, many years, I make secret lair in Bikini Atoll. American call it that, but I rename to Soong's Micronesian Micronation. It has nice ring to it.

Anyway, I build androids and mind my own business, but one day I monitor Americans and they say they blow up my island. Some missile test, but I say waste of perfectly good rocks.

I detect submarine with my acoustics, and I transmit on ELF and say "Don't blow up my island please!" But my Engrish so bad, they get confused and jam me with much megawatts. I not give up though. I build big ideograph out of bamboo, it say "Don't blow up my island thanks". But they have no analyst that read my language. I escape in nick of time in my junk ship.

look at picture, see big hole in middle of island?
http://en.wikipedia.org/wiki/Bikini_Atoll

MX missile destroy me. Now I teach dumb punk how to repair personal computer. I get revenge. I build big contest station and beat everyone.

Soong

4561. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 12:26:00 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <TeadnTK5aoLFEQfZnZ2dnUVZ_tGdnZ2d@comcast.com>
Source record: 57353
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy

NOPE! The MX missile has 100% nothing to do with the Bikini Tests! Those tests were conducted after WWII and ended in the 1950s. The MX missile initial deployment was 1985.

By today's standards, the Bikini tests were low yield [~20KT] fission devices. Today's standard is moderate yields [~300 to 500 KT] fission-fusion devices.

MX has nothing to do with Bikini Atoll.

Have fun building your androids.

Dr. Noonian Soong wrote:
> "David G. Nagel" <nagel@core.com> wrote in message
> news:129j6ltcabaei12@corp.supernews.com...
>
>
>>In as much as the MX missile carries a hydrogen warhead I don't think
>>that Soong's country was destroyed by one.
>>
>
>
> Dr. Nagel,
>
> You please listen to me, I get PhD from big university. My university so
> expensive most American can't buy cafeteria lunch.
>
> Long time ago, many years, I make secret lair in Bikini Atoll. American
> call it that, but I rename to Soong's Micronesian Micronation. It has nice
> ring to it.
>
> Anyway, I build androids and mind my own business, but one day I monitor
> Americans and they say they blow up my island. Some missile test, but I say
> waste of perfectly good rocks.
>
> I detect submarine with my acoustics, and I transmit on ELF and say "Don't
> blow up my island please!" But my Engrish so bad, they get confused and jam
> me with much megawatts. I not give up though. I build big ideograph out of
> bamboo, it say "Don't blow up my island thanks". But they have no analyst
> that read my language. I escape in nick of time in my junk ship.
>
> look at picture, see big hole in middle of island?
> http://en.wikipedia.org/wiki/Bikini_Atoll
>

> MX missile destroy me. Now I teach dumb punk how to repair personal
> computer. I get revenge. I build big contest station and beat everyone.
>
> Soong
>
>

4562. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 12:41:22 UTC
From: kb9rqz_child_molester@yahoo.com
Message-ID: <1150980082.579683.44290@p79g2000cwp.googlegroups.com>
Source record: 57354
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

```
an old friend wrote:
> peewee_lloyd_davies@yahoo.com wrote:
> > an old freind wrote:
> sex with
> >
> >
> > And You have sex with other man and goats, faggot!
> get

Says the self admitted homosexual deviant Mark Morgan.
```

4563. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 13:02:19 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <vxwmg.49775$mF2.41777@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57355

Cecil Moore wrote:
> Gene Fuller wrote:
>> Cecil Moore wrote:
>>> Where is the (corona) energy coming from?
>>
>> Who cares?
>
> Probably anyone reading this thread. On a clear sky day,
> what is the source of energy for your sustained
> 100 uA/cm^2 corona discharge? That energy has to come
> from somewhere. Where does your corona energy come from?

Cecil,

You must have been asleep when your professors at TAMU explained basic problem solving techniques.

There is often more than one way to correctly address a problem. In the case of many electrical problems it is possible to follow an approach that looks at the energy and it is also possible to follow an approach that looks at forces and fields. Neither approach is wrong, and in the end both must consistently yield the correct solution. It is often true, however, that one approach is much easier to pursue, and it therefore will be preferred.

In this case there is no quantitative information about the sources of energy, the sinks of energy, or the transport of energy. This is not a well-bounded system in which the total energy can be easily defined. An energy-based solution is going to be hard to achieve. Stick to fields and forces for this one.

73,
Gene
W4SZ

4564. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 13:11:59 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <zGwmg.49802$mF2.36817@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57356

Cecil Moore wrote:
> Gene Fuller wrote:
>> The only issue is what causes the noise heard in the receiver.
>
> Receiver noise has many causes. Corona is certainly one
> of them. There is absolutely no argument about that.
>
> Please provide a reference that says clear-sky wind-
> driven charged dust particles cannot cause receiver
> noise.

Cecil,

Absolutely no one has stated that clear-sky wind-driven charged dust particles cannot cause receiver noise.

The entire issue is whether the charged dust leads to corona discharge or whether the charge from the dust finds it way directly through the receiver front end and into the audio system.

For some reason you seem to believe that corona can exist only in environments where strong background fields exist and not in "clear sky" conditions. I don't know where you came up with that one, but it simply is not true.

Your own favorite example of an arcing connector would seem to indicate that there is plenty of charging and voltage build-up on the antenna. If there is enough voltage to support connector arcing why would there not be enough voltage to support corona discharge from some sharp point on the antenna?

73,
Gene
W4SZ

4565. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 13:25:06 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <SSwmg.48830$fb2.24186@newssvr27.news.prodigy.net>
Source record: 57357

Gene Fuller wrote:
> In this case there is no quantitative information about the sources of
> energy, the sinks of energy, or the transport of energy. This is not a
> well-bounded system in which the total energy can be easily defined. An
> energy-based solution is going to be hard to achieve. Stick to fields
> and forces for this one.

But there is quantitative information about the
source of energy for corona. You have to ignore
that information because your corona concepts
require violation of the conservation of energy
principle. Where is the energy coming from to
sustain a current flow of 100 uA/cm^2 under a
clear sky?

Fields and forces require a supply of energy. If
there is not enough energy available under certain
fairweather conditions to support your esoteric
corona theories, then those theories are wrong.

Of course a moving airplane can cause corona. The
engine fuel is pumping energy into the system.

Of course an RF transmitter can cause corona. The
transmitter is pumping energy into the system.

Under passive clear-sky fairweather conditions,
what is pumping enough energy into the system to
cause your corona? If you were correct, every lightning
rod and antenna in the world would glow at night
under starry skies. When is the last time you
saw a lightning rod glow at night under perfectly
cloudless skies?
--
73, Cecil http://www.qsl.net/w5dxp

4566. Re: antenna papers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 14:22:07 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <ilxmg.103751$TK1.2555@fed1read06>
Source record: 57358

Try URL:

http://ac6v.com/antprojects.htm#theory
--
CL -- I doubt, therefore I might be !

"gravity" <gravityzrainbow@yahoo.com> wrote in message
news:449a5059$0$80513$892e7fe2@authen.yellow.readfreenews.net...
> any good antenna theory sites? i have taken emag and difeqs, but i need
> something that it is easy on the brane.
>
> should i get the Kraus book?
>
> TIA,
>
> Gravity
>
>

4567. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 15:38:42 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <6Qymg.71233$4L1.62783@newssvr11.news.prodigy.com>
Source record: 57359

Gene Fuller wrote:
> Absolutely no one has stated that clear-sky wind-driven charged dust
> particles cannot cause receiver noise.

On the contrary, Gene, that is not true. W8JI's assertions to
that effect is what started this argument.

> w8ji@akorn.net wrote:
>> People actually seem to think the little particles moving through the
>> air charge the antenna to a different potential than the air around the
>> antenna ...
>
>> All that crud hitting the antenna isn't significantly different in
>> potential than the air around the element ...
>
>> I've never seen a case of precitation static occuring that way.
>> In every single case I've seen, whether on tall buildings, tall
>> towers, or antenna hear earth, it has always been corona discharges
>> from the antenna or objects near the antenna.
>
>> The second is what is commonly called P-static. ... This is the
>> mechanisim I disagree with being caused by particles striking the
>> antenna.

I have posted many web page references to show that rain, snow,
and dust particles are subject to triboelectric charging. The
fact that W8JI has never seen such is irrelevant. He never saw
George Washington either.

> The entire issue is whether the charged dust leads to corona discharge
> or whether the charge from the dust finds it way directly through the
> receiver front end and into the audio system.

Then the argument boils down to whether the noise level threshold
is *exactly* equal to the corona threshold. That means there is zero
noise until 100 uA/cm^2 starts to flow through the air accompaning
the corona. Can you appreciate how ridiculous such an argument
really is?

There is most probably a region between zero noise and corona
where noise exists and corona doesn't exist.

> For some reason you seem to believe that corona can exist only in
> environments where strong background fields exist and not in "clear sky"
> conditions. I don't know where you came up with that one, but it simply
> is not true.

Nope, I never said that. I asked you to prove that corona always
accompanies charged particle noise even under clear sky conditions.
So far, you have offered zero proof. If clear-sky wind-driven charged
particles increase the noise level from S-1 to S-1.1 do you really
expect us to believe that small amount of charge is enough to cause
100 uA/cm^2 of sustained current to flow through thin air? That is
what is needed for corona to exist.

> Your own favorite example of an arcing connector would seem to indicate
> that there is plenty of charging and voltage build-up on the antenna. If
> there is enough voltage to support connector arcing why would there not
> be enough voltage to support corona discharge from some sharp point on
> the antenna?

That's not the question. The question is given 1% of the charge
necessary to cause arcing, can RF noise exist without corona
existing? If there is just one case of charged particle RF
noise in the entire world in the absence of corona, your
argument is wrong.
--
73, Cecil, http://www.qsl.net/w5dxp

4568. Re: BNC power capacity

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 16:16:57 UTC
From: gene@csl.uiuc.edu
Message-ID: <e7efpp$72m$1@news.ks.uiuc.edu>
Source record: 57360

I guess this is a case where one doesn't ask....he just does it!
I have a 20 Meter Hi-Q Halo-type loop (6' dia) hanging from a tree
limb about 40' high. I needed lighter weight so I used RG-58 about
75' long....well-matched at the antenna for very little SWR.
I have been using this with 1 Kw SSB peak for about 10 years with
no problems...this includes reasonably long tune-up with full carrier.

4569. Re: FSM software update - V1.11

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 16:42:23 UTC
From: Ron <wa0kds@yahoo.com>
Message-ID: <449AC9F5.1040007@yahoo.com>
Source record: 57361
Cross-posted to: aus.radio.amateur.misc,rec.radio.amateur.antenna

I finally got it downloaded. I am not sure why but it would only down
load about 100 to 200KB at a time. I have never had this happen before.
I have downloaded 30 MB files with no problem even on my 56K modem
all it takes is a lot of time but I never have the download just stop
and think it was over.

Anyway it is downloaded and seems to be OK now.

Ron WA0KDS

Owen Duffy wrote:
> On 22 Jun 2006 02:25:46 EDT, Ron <wa0kds@yahoo.com> wrote:
>
>
>>Yup it took me 25 tries finally to get it downloaded..
>
>
> Well Ron, I am sorry you have had so much trouble.
>
> I am at a loss to explain it, I have just downloaded it 10 times
> without a hitch (they are all the correct size and pass a PKUNZIP -vt
> test).
>
> Owen
> --

4570. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 17:11:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <mbAmg.71277$4L1.1683@newssvr11.news.prodigy.com>
Source record: 57362

w8ji@akorn.net wrote:
> I've never seen a case of precitation static occuring that way.

ATIS is accredited by the American National Standards Institute (ANSI).

http://www.atis.org/tg2k/_precipitation_static.html

"precipitation static (p-static): Radio interference caused by the
impact of charged particles against an antenna. Note: Precipitation
static may occur in a receiver during certain weather conditions, such
as snowstorms, hailstorms, rainstorms, dust storms, or combinations
thereof."
--
73, Cecil, http://www.qsl.net/w5dxp

4571. How to model a 6:1 ratio balun using NEC2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 17:17:29 UTC
From: KC2PIH@gmail.com
Message-ID: <1150996648.944802.242350@c74g2000cwc.googlegroups.com>
Source record: 57363

I am using Nec Win Plus (NEC2) to view the SWR curve of my modeled antenna. The actual antenna uses a 6:1 ratio balun. Is it incorrect to just change the characteristic impedance of the line from 50 ohms to 300 ohms to see what effect a 6:1 balun would have on the SWR values? I was just assuming that the line impedance was only really needed to calcuate SWR - hopefully I am right.

Thanks,
Scott, WU2X

4572. Re: How to model a 6:1 ratio balun using NEC2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 17:28:13 UTC
From: w8ji@akorn.net
Message-ID: <1150997293.803576.301350@p79g2000cwp.googlegroups.com>
Source record: 57364

KC2PIH@gmail.com wrote:
> I am using Nec Win Plus (NEC2) to view the SWR curve of my modeled
> antenna. The actual antenna uses a 6:1 ratio balun. Is it incorrect
> to just change the characteristic impedance of the line from 50 ohms to
> 300 ohms to see what effect a 6:1 balun would have on the SWR values? I
> was just assuming that the line impedance was only really needed to
> calcuate SWR - hopefully I am right.

Yes, but that assumes a perfect balun.

4573. Re: How to model a 6:1 ratio balun using NEC2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 17:32:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <129ll1qre3mdr67@corp.supernews.com>
Source record: 57366

Changing the modeled line impedance to 300 ohms is correct if you really have a 6:1 transformer. But you probably don't.

The impedance transformation of a typical 6:1 balun is around 6:1 when the antenna impedance is near 50 ohms resistive. However, when it's not, the transformation can be vastly different. And the balun is likely to add substantial series and/or shunt reactance to boot. So there's no way to know what impedance you'll really see looking into the transformer unless you measure one when loaded with various impedances.

You should also know that a "voltage balun", which a 6:1 balun typically is, produces equal currents in the dipole halves, and no current on the feedline, only if the antenna is perfectly symmetrical. If the antenna isn't symmetrical (e.g. if it's fed off center), the "balun" will force common mode current to flow along the outside of the coax. This will affect the feedpoint impedance as well. See http://eznec.com/Amateur/Articles/Baluns.pdf for more information about this.

Roy Lewallen, W7EL

KC2PIH@gmail.com wrote:
> I am using Nec Win Plus (NEC2) to view the SWR curve of my modeled
> antenna. The actual antenna uses a 6:1 ratio balun. Is it incorrect
> to just change the characteristic impedance of the line from 50 ohms to
> 300 ohms to see what effect a 6:1 balun would have on the SWR values? I
> was just assuming that the line impedance was only really needed to
> calcuate SWR - hopefully I am right.
>
> Thanks,
> Scott, WU2X
>

4574. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 17:32:44 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1150997564.597260.325200@c74g2000cwc.googlegroups.com>
Source record: 57365
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

kb9rqz_child_molester@yahoo.com wrote:
> an old friend wrote:
> > peewee_lloyd_davies@yahoo.com wrote:
> > > an old freind wrote:
> > sex with
> > >
> > >
> > > And You have sex with other man and goats, faggot!
> > get help prevert
>
> Says the self admitted homosexual deviant Mark Morgan.
no say the self admted welladjueged bisexaul named Mark Morgan
and I say it again

get help prevert

4575. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 18:06:22 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <y_Amg.50481$mF2.15427@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57367

Cecil Moore wrote:
> Gene Fuller wrote:
>> In this case there is no quantitative information about the sources of
>> energy, the sinks of energy, or the transport of energy. This is not a
>> well-bounded system in which the total energy can be easily defined.
>> An energy-based solution is going to be hard to achieve. Stick to
>> fields and forces for this one.
>
> But there is quantitative information about the
> source of energy for corona. You have to ignore
> that information because your corona concepts
> require violation of the conservation of energy
> principle. Where is the energy coming from to
> sustain a current flow of 100 uA/cm^2 under a
> clear sky?
>
> Fields and forces require a supply of energy. If
> there is not enough energy available under certain
> fairweather conditions to support your esoteric
> corona theories, then those theories are wrong.
>
> Of course a moving airplane can cause corona. The
> engine fuel is pumping energy into the system.
>
> Of course an RF transmitter can cause corona. The
> transmitter is pumping energy into the system.
>
> Under passive clear-sky fairweather conditions,
> what is pumping enough energy into the system to
> cause your corona? If you were correct, every lightning
> rod and antenna in the world would glow at night
> under starry skies. When is the last time you
> saw a lightning rod glow at night under perfectly
> cloudless skies?

Cecil,

Why do you think there is some magic about 100 uA/cm2? You found something only slightly related on the ESDA web site and now you have accepted that number as a standard. Even if it were correct, how many cm2 are you requiring? The size of a stray wire strand on the end of an antenna is pretty small.

Do you suppose there is a fundamental difference between an airplane moving through the air and a stationary plane with wind blowing past it?

Does the wind require engine fuel?

Your energy arguments are simply irrelevant. Do you understand the meaning of quantitative? Can you quote even one relevant number in terms of watts or joules?

Finally, you might want to check your references about your requirement that fields and forces require a supply of energy.

73,
Gene
W4SZ

4576. Re: How to model a 6:1 ratio balun using NEC2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 18:37:52 UTC
From: KC2PIH@gmail.com
Message-ID: <1151001472.521073.320600@p79g2000cwp.googlegroups.com>
Source record: 57368

Hi Roy,

Yeah, I just started a thread a few days ago regarding current vs.
voltage baluns with respect to my OCF Dipole. I started to play with
around with modeling feedline radiation following the notes on Cebik's
page about it. Doesn't seem like its really possible to accurately
predict the SWR/bandwidth when you start trying to model feedline
radiation too.

Very carefully modeling the very simple OCF Dipole I have assuming no
feedline radiation yields a SWR curve over the HF band that is no-where
near my real world measured values. The NEC2 computed values are much
higher.

-Scott, WU2X

Roy Lewallen wrote:
> Changing the modeled line impedance to 300 ohms is correct if you really
> have a 6:1 transformer. But you probably don't.
>
> The impedance transformation of a typical 6:1 balun is around 6:1 when
> the antenna impedance is near 50 ohms resistive. However, when it's not,
> the transformation can be vastly different. And the balun is likely to
> add substantial series and/or shunt reactance to boot. So there's no way
> to know what impedance you'll really see looking into the transformer
> unless you measure one when loaded with various impedances.
>
> You should also know that a "voltage balun", which a 6:1 balun typically
> is, produces equal currents in the dipole halves, and no current on the
> feedline, only if the antenna is perfectly symmetrical. If the antenna
> isn't symmetrical (e.g. if it's fed off center), the "balun" will force
> common mode current to flow along the outside of the coax. This will
> affect the feedpoint impedance as well. See
> http://eznec.com/Amateur/Articles/Baluns.pdf for more information about
> this.
>
> Roy Lewallen, W7EL
>
> KC2PIH@gmail.com wrote:
> > I am using Nec Win Plus (NEC2) to view the SWR curve of my modeled
> > antenna. The actual antenna uses a 6:1 ratio balun. Is it incorrect
> > to just change the characteristic impedance of the line from 50 ohms to
> > 300 ohms to see what effect a 6:1 balun would have on the SWR values? I
> > was just assuming that the line impedance was only really needed to
> > calcuate SWR - hopefully I am right.

> >
> > Thanks,
> > Scott, WU2X
> >

4577. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 18:47:32 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <8BBmg.120589$dW3.70580@newssvr21.news.prodigy.com>
Source record: 57369

Gene Fuller wrote:
> Your energy arguments are simply irrelevant.

Of course they are irrelevant to you but not to me
because I believe in the conservation of energy
principle.

> Finally, you might want to check your references about
> your requirement that fields and forces require a supply
> of energy.

Didn't mean to imply it had to be continuous. Maybe
"source" would have been a better choice of words
than "supply".
--
73, Cecil, http://www.qsl.net/w5dxp

4578. Re: How to model a 6:1 ratio balun using NEC2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 19:42:00 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <129lskc2k8f60ca@corp.supernews.com>
Source record: 57370

KC2PIH@gmail.com wrote:
> Hi Roy,
>
> Yeah, I just started a thread a few days ago regarding current vs.
> voltage baluns with respect to my OCF Dipole. I started to play with
> around with modeling feedline radiation following the notes on Cebik's
> page about it. Doesn't seem like its really possible to accurately
> predict the SWR/bandwidth when you start trying to model feedline
> radiation too.
>
> Very carefully modeling the very simple OCF Dipole I have assuming no
> feedline radiation yields a SWR curve over the HF band that is no-where
> near my real world measured values. The NEC2 computed values are much
> higher.

That's no surprise. Assumptions that the feedline won't radiate and that the balun effects a 6:1 impedance transformation regardless of impedance are both invalid. Garbage in, garbage out.

Roy Lewallen, W7EL

4579. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 19:45:55 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <129lsrmt0sbhba3@corp.supernews.com>
Source record: 57371

Gene Fuller wrote:
> . . .
> Finally, you might want to check your references about your requirement
> that fields and forces require a supply of energy.

That's been the downfall of many a perpetual motion proponent. A permanent magnet produces both a field and a force. So it must be a source of energy, right?

I see Cecil is at it again. Gad.

Roy Lewallen, W7EL

4580. Re: How to model a 6:1 ratio balun using NEC2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 20:13:51 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <VvadnX7eabgMZwfZRVnyhw@bt.com>
Source record: 57373

All feedlines radiate and receive noise and signals. They can't help
it.

But on 99% of occasions the magnitude is small enough to be ignored.
If it works satisfactory then don't bother fixing it!

4581. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 20:15:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ZTCmg.55534$Lm5.1692@newssvr12.news.prodigy.com>
Source record: 57372

Roy Lewallen wrote:
> That's been the downfall of many a perpetual motion proponent. A
> permanent magnet produces both a field and a force. So it must be a
> source of energy, right?

I would assume the *total* amount of energy in the magnet
is e=mc^2.
--
73, Cecil, http://www.qsl.net/w5dxp

4582. Re: antenna papers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 20:30:42 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <LsKdnTyFfbdsYAfZnZ2dnUVZ_oCdnZ2d@comcast.com>
Source record: 57374

gravity wrote:

> any good antenna theory sites? i have taken emag and difeqs, but i need
> something that it is easy on the brane.
>
> should i get the Kraus book?
>
> TIA,
>
> Gravity
>
>

ANTENNAS, J. Kraus, McGraw-Hill 1950, is a great reference. If you passed 'emag and difeqs' in college you should be comfortable with Kraus.

Now, I have a question: "If you passed 'emag and difeqs' why do you worry about 'easy on the brane[sic]' ? You have adequate 'brane' power.

4583. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 20:34:17 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129lvmbplp06vb5@corp.supernews.com>
Source record: 57375
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx,rec.radio.cb

"J. D. B." <duffyb01@nospamfuse.net> wrote in message
news:ec9c2$4499f0eb$d06640f9$2390@FUSE.NET...
>I would also add that you must be able to prove that you can trace your
>ancestry back to 1776 or earlier in order to hold an Amateur Radio License
>as only decedents, of real Americans around at the time of the
>Revolutionary War, should be allowed to possess a license.
>
> Also, that you not be allowed to operate any tube gear. It sucks too much
> electricity and is helping to destroy the environment.
>
> You must build your own equipment. Ban all manufacturers of amateur gear,
> unless of course, it is made in America in which case a 200% tariff should
> be added to help fund the FCC with all this additional testing that you
> would now require.
>
> All amateur operators must also pass a spelling and grammar test. They
> must not be overweight and have perfect hygiene and never smell at any
> hamfests - especially Dayton.
>
> Once you start riding an electric cart at Dayton or any other hamfest,
> your Amateur Radio license is immediately revoked.
>
> There are probably some other items that need to be added to the list of
> requirements, but I will submit those to these groups later.
>
>

Since I am of Native American ancestry, the airwaves belong to my people.
Therefore all non Native Americans must immediately surrender their license.
We will allow you to monitor transmissions as we plan to use the airwaves to
advertise our casinos.

This is obviously a joke so don't flame me.

4584. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 20:34:22 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129lvmgofeujhbd@corp.supernews.com>
Source record: 57377
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
"Slow Code" <sc.h@m.mail> wrote in message
news:FXkmg.15$ii.9@newsread3.news.pas.earthlink.net...
> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
> news:wh4mg.139$lv.109@fed1read12:
>
>>
>> "Slow Code" <sc@mo.mail> wrote in message
>> news:cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net...
>>> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
>>> news:YGKlg.104$lv.41@fed1read12:
>>>
>>> >
>>> > "dxAce" <dxAce@milestones.com> wrote in message
>>> > news:44969559.30D72920@milestones.com...
>>> >
>>> >>
>>> >> Anybody who can't pass the minimal 5 WPM doesn't deserve a license.
>>> >
>>> > That's needlessly insulting.
>>>
>>>
>>> No it isn't.
>>>
>>> Some things in life require you do a little work to enjoy their
>>> benefits. You don't want to learn CW, you shouldn't be allowed on ham
>>> radio.
>>>
>>> And Five words per minute ain't a code test. I can fart five words per
>>> minute. Anyone that can't learn 5 wpm is either lazy or a tard and
>>> should stick to CB, FRS, and cell phones.
>>
>> I am a gainfully-employed degreed engineer with an above-average IQ
>> and dyslexia. You are beneath contempt.
>
>
> Anyone else hear a tiny violin playing?
>
>
> sc
```

No, I see a newsgroup clown that can't accept the fact that this man learned to succeed despite his dyslexia. Instead of offering ideas that could help him learn code you decide to insult him. You sit and whine about how ham radio is going to shit because they allow no code tech licensing and possibly doing away with code altogether. But you missed the biggest point with ham radio it was to help people. Did you help this man by offering alternative options to learn code? No, you insult him instead. It is you and your kind that will be the downfall of ham radio. Blame yourself.

4585. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 20:34:34 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129lvmupd8190c6@corp.supernews.com>
Source record: 57378
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Earl the troll pearl" <earlpearl@florida.news> showed his lack of intellect
in message news:449w90d-34354odre-a$f09@miami.fl.news...
> In article <1150890810.270718.211170@b68g2000cwa.googlegroups.com>,
> "an_old_friend" <konstans@hotmail.com> wrote:
>>
>>Sal M. Onella wrote:
>>> "Slow Code" <sc@mo.mail> wrote in message
>>> news:cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net...
>>> > "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
>>> > news:YGKlg.104$lv.41@fed1read12:
>>
>>> > And Five words per minute ain't a code test. I can fart five words
>>> > per
>>> > minute.
>>
>>but look at what he says HE knows the test is uselesss he all but says
>>there
>>>
>>> I am a gainfully-employed degreed engineer with an above-average IQ
>>> and dyslexia. You are beneath contempt.
>>of course he is
>>>
>>> *CLICK*
>
>
> You and Sal M onella should hit it off just fine. With his dyslexia, and
> your
> mis-spelled words, he's probably the only one here that can clearly read
> and understand what you typed.
>
> Earl

Why do you find the need to boost your (lack of) self-confidence by
insulting this person by comparing him to Mark? Mark chooses to sit on his
ass sucking the entitlement system dry and contributing nothing to society,
while this person decided to make the best of his what God gave him and he
contributes to the same entitlement system that Mark chooses to deplete.

Earl you are not the Pearl of wisdom, you are the faux Pearl that trolls to
enhance your (lack of) self-esteem.

Something I just thought of at the spur of the moment (not to mention keeps me on topic), some disabled person should sue to remove ALL code requirements, or offer an exclusion to those with disabilities to not have to take ANY code test under the Americans with Disability Act. I'm sure that person could even get a free ACLU lawyer to handle it.

4586. OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 20:34:52 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129lvnf4h9st2d3@corp.supernews.com>
Source record: 57376
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"notbob" <notbob@nothome.com> wrote in message
news:1aOdnQMcX-kk9gTZnZ2dnUVZ_qadnZ2d@comcast.com...
> On 2006-06-21, gravity <gravityzrainbow@yahoo.com> wrote:
>>
>> this is why we need to add critical analysis to the engineering
>> curriculum.
>
> It matters not. When management lacks the same talent, engineers will
> be chosen for economic rather than practical reasons. Outsourcing to
> India and H1B visas are proof. The fact that India has yet to produce
> a single Intel or Microsoft or H-P or Sony is lost on those whose who
> fawn over those rote trained hordes.
>
> nb

India is not a country we rely on to build super companies (for lack of a better term). Take a look at what we send to India. Toxic chemical factories that would be choked to death by special interest groups and politicians. We also outsource technical support, which is a waste of time and money, good thing companies don't pay them much, but it's a cheap way of saying "we have tech support" without truly having it. Look at the shoe mfg. industry, all moved to third world slave labor countries. Good for the shoe industry as they no longer have to deal with unions and we keep management and development in countries that have the talent and resources to maintain state of the art products. Look at how the auto industry has changed. They sent 1000s of jobs overseas to cut down on union labor (with management and R&D in the US), and the Japs are opening plants in the US (with management and R&D in Japan) that will never deal with the UAW. I could go on forever with this post (and talk about NAFTA), but will end my rave at this point. BTW, changed subject header as it didn't seem to fit. I would have trimmed a few NGs but am unsure what groups you are subscribed to.

4587. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 21:15:08 UTC
From: w8ji@akorn.net
Message-ID: <1151010908.770266.158020@p79g2000cwp.googlegroups.com>
Source record: 57379

Cecil Moore wrote:
> I would assume the *total* amount of energy in the magnet
> is e=mc^2.

Cecil,

Before you launch into relativity, did you ever figure out what you were doing wrong with your folded dipole shorts the noise and not the desired signal theory???

73 Tom

4588. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 21:25:35 UTC
From: David <rickets@knac.com>
Message-ID: <hl2m92p1ggaq8041erjbk7rm4ekg1mu07i@4ax.com>
Source record: 57380
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

On Thu, 22 Jun 2006 15:34:52 -0500, "DrDeath"
<drdeath555usb@yahoo.com> wrote:

>
>India is not a country we rely on to build super companies (for lack of a
>better term). Take a look at what we send to India. Toxic chemical factories
>that would be choked to death by special interest groups and politicians. We
>also outsource technical support, which is a waste of time and money, good
>thing companies don't pay them much, but it's a cheap way of saying "we have
>tech support" without truly having it. Look at the shoe mfg. industry, all
>moved to third world slave labor countries. Good for the shoe industry as
>they no longer have to deal with unions and we keep management and
>development in countries that have the talent and resources to maintain
>state of the art products. Look at how the auto industry has changed. They
>sent 1000s of jobs overseas to cut down on union labor (with management and
>R&D in the US), and the Japs are opening plants in the US (with management
>and R&D in Japan) that will never deal with the UAW. I could go on forever
>with this post (and talk about NAFTA), but will end my rave at this point.
>BTW, changed subject header as it didn't seem to fit. I would have trimmed a
>few NGs but am unsure what groups you are subscribed to.
>
>
The purpose of business is to keep people busy.

4589. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 21:43:45 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1151012625.396009.72890@m73g2000cwd.googlegroups.com>
Source record: 57381
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

DrDeath wrote:
> "Earl the troll pearl" <earlpearl@florida.news> showed his lack of intellect
> in message news:449w90d-34354odre-a$f09@miami.fl.news...
> > In article <1150890810.270718.211170@b68g2000cwa.googlegroups.com>,
> > "an_old_friend" <konstans@hotmail.com> wrote:

>Mark chooses to sit on his
> ass sucking the entitlement system dry and contributing nothing to society,
> while this person decided to make the best of his what God gave him and he
> contributes to the same entitlement system that Mark chooses to deplete.

why doy uo insist on insulting someone whoose word you are afraid to
even read

esp whne you choose to do so by repeating the lies of other

> Something I just thought of at the spur of the moment (not to mention keeps
> me on topic), some disabled person should sue to remove ALL code
> requirements, or offer an exclusion to those with disabilities to not have
> to take ANY code test under the Americans with Disability Act.
you are merely 10 year behind me

but the ACLU is not interested not enough publiciy involved or enough
victums
>I'm sure that
> person could even get a free ACLU lawyer to handle it.

4590. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 21:48:52 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <8fEmg.101708$H71.42956@newssvr13.news.prodigy.com>
Source record: 57382

Roy Lewallen wrote:
> Gene Fuller wrote:
>> Finally, you might want to check your references about your
>> requirement that fields and forces require a supply of energy.
>
> That's been the downfall of many a perpetual motion proponent. A
> permanent magnet produces both a field and a force. So it must be a
> source of energy, right?

Accusing me of saying something I didn't say is standard
procedure for you, Roy. Why must you stoop to such behavior?
Why not argue the technical issues on the technical merits?

My meaning was that a field or a force requires energy for
them to exist in the first place. I did NOT say energy could
be extracted from fields and forces. Please stop misquoting me.
--
73, Cecil http://www.qsl.net/w5dxp

4591. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 22:00:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <bqEmg.101715$H71.86488@newssvr13.news.prodigy.com>
Source record: 57384

w8ji@akorn.net wrote:
> Before you launch into relativity, did you ever figure out what you
> were doing wrong with your folded dipole shorts the noise and not the
> desired signal theory???

There was absolutely nothing said about signal in that entire
thread except when you tried to introduce it as a diversion.
The entire thread unfolded as if no signals existed and we
were only interested in measuring and dealing with the noise.

But now let's allow signals to be introduced into the thread.
My dipole was arcing once per second at the coax connector.
I couldn't hear any signals. I estimate the signal to noise
ratio under those conditions to be zero. Would you disagree?

I modified my dipole into a folded dipole. The arcing ceased
and I could then hear signals. I estimate the signal to noise
ratio was not zero any more. Would you disagree?

I really question the IQ of anyone who asserts that eliminating
arcing in a system doesn't reduce the noise. I assume you are
not a member of MENSA. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4592. Re: BNC power capacity

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 22:00:45 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <i24m92dcro7tqj4kqeu194enjqvkg8il18@4ax.com>
Source record: 57383

On Thu, 22 Jun 2006 16:16:57 +0000 (UTC), gene@csl.uiuc.edu (Gene Gardner) wrote:

>
>
>I guess this is a case where one doesn't ask....he just does it!
> I have a 20 Meter Hi-Q Halo-type loop (6' dia) hanging from a tree
>limb about 40' high. I needed lighter weight so I used RG-58 about
>75' long....well-matched at the antenna for very little SWR.
> I have been using this with 1 Kw SSB peak for about 10 years with
>no problems...this includes reasonably long tune-up with full carrier.

So you are dissipating about 4W per foot of cable with key down 1kW CW. Average power of voice with compression is about 13dB lower, or about 200mW per foot.

Explains why it has worked ok, doesn't it!

If you dig into the numbers, about 25%+ of your transmit power is lost in the line losses, which is a compromise you acceptaed for the lighter weight line you needed.

Owen
--

4593. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 22:07:12 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449b14e2$0$76118$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57385

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:ZTCmg.55534$Lm5.1692@newssvr12.news.prodigy.com...
> Roy Lewallen wrote:
> > That's been the downfall of many a perpetual motion proponent. A
> > permanent magnet produces both a field and a force. So it must be a
> > source of energy, right?
>
> I would assume the *total* amount of energy in the magnet
> is e=mc^2.

now hold it from the top of W8JI's tower. e=mc^2 + mgh

Gravity

> --
> 73, Cecil, http://www.qsl.net/w5dxp

4594. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 22:09:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <AyEmg.101718$H71.85292@newssvr13.news.prodigy.com>
Source record: 57386

Roy Lewallen wrote:
> I see Cecil is at it again. Gad.

It is probably delusions of grandeur for you to expect
that uttering the word, "Gad", will have any technical
effect on this newsgroup. Hint: The emperor has no clothes.
--
73, Cecil http://www.qsl.net/w5dxp

4595. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 22:12:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pBEmg.101720$H71.49703@newssvr13.news.prodigy.com>
Source record: 57387

Gene Fuller wrote:
> The entire issue is whether the charged dust leads to corona discharge
> or whether the charge from the dust finds it way directly through the
> receiver front end and into the audio system.

Seems that I am in the mainstream here.
Here's an interesting related thread from eHam.net:

http://www.eham.net/forums/Elmers/83174
--
73, Cecil http://www.qsl.net/w5dxp

4596. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 22:16:08 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <RaKdnd7qlvY1iwbZnZ2dnUVZ_vWdnZ2d@comcast.com>
Source record: 57388
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

DrDeath wrote:

SNIPPED
> Something I just thought of at the spur of the moment (not to mention keeps
> me on topic), some disabled person should sue to remove ALL code
> requirements, or offer an exclusion to those with disabilities to not have
> to take ANY code test under the Americans with Disability Act. I'm sure that
> person could even get a free ACLU lawyer to handle it.

Many years ago, 1950s, there was a very active 10 meter ham in Danvers, Massachusetts, during the period of Class A, B and C licenses. He was an arthritic quadriplegic. He was wheel chair bound, lived alone, and required visiting help to get into and out of bed and have his meals prepared and served.

He had a Class C [Conditional] license. He learned to copy 'read' CW in his head although he did not have the ability to send. I don't think he would consider a lawsuit appropriate.

Some of the OTs on this list may have worked him. W1JFS, Les MacCrakin. God Rest His Soul.

/s/ DD, W1MCE

4597. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 22:21:55 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <RP6dnb6E7KmehQbZnZ2dnUVZ_qWdnZ2d@comcast.com>
Source record: 57389
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

notbob wrote:

> On 2006-06-21, gravity <gravityzrainbow@yahoo.com> wrote:
>
>>this is why we need to add critical analysis to the engineering curriculum.
>
>
> It matters not. When management lacks the same talent, engineers will
> be chosen for economic rather than practical reasons. Outsourcing to
> India and H1B visas are proof. The fact that India has yet to produce
> a single Intel or Microsoft or H-P or Sony is lost on those whose who
> fawn over those rote trained hordes.
>
> nb

Having hired many engineers in my lifetime I can state that good engineers meet several criteria:

o meet the technical requirements established by your customer,

o meet the schedule established by your customer,

o meet the costs established by your customer.

Economics is only 1/3 of good engineering talent.

/s/ DD, W1MCE

4598. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 22:28:45 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <129m6ct3rdtui3a@corp.supernews.com>
Source record: 57390
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

David wrote:

> On Thu, 22 Jun 2006 15:34:52 -0500, "DrDeath"
> <drdeath555usb@yahoo.com> wrote:
>
>
>
>>India is not a country we rely on to build super companies (for lack of a
>>better term). Take a look at what we send to India. Toxic chemical factories
>>that would be choked to death by special interest groups and politicians. We
>>also outsource technical support, which is a waste of time and money, good
>>thing companies don't pay them much, but it's a cheap way of saying "we have
>>tech support" without truly having it. Look at the shoe mfg. industry, all
>>moved to third world slave labor countries. Good for the shoe industry as
>>they no longer have to deal with unions and we keep management and
>>development in countries that have the talent and resources to maintain
>>state of the art products. Look at how the auto industry has changed. They
>>sent 1000s of jobs overseas to cut down on union labor (with management and
>>R&D in the US), and the Japs are opening plants in the US (with management
>>and R&D in Japan) that will never deal with the UAW. I could go on forever
>>with this post (and talk about NAFTA), but will end my rave at this point.
>>BTW, changed subject header as it didn't seem to fit. I would have trimmed a
>>few NGs but am unsure what groups you are subscribed to.
>>
>>
>
> The purpose of business is to keep people busy.
>
The purpose of business is to make money for it's owners. Everything
else is charity.

This aught to cause a flame war. :^)

4599. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 22:50:33 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <bJSdnRBXL9F9gwbZnZ2dnUVZ_qydnZ2d@comcast.com>
Source record: 57391
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
"DrDeath" <drdeath555usb@yahoo.com> wrote in message
news:129lvmgofeujhbd@corp.supernews.com...
> "Slow Code" <sc.h@m.mail> wrote in message
> news:FXkmg.15$ii.9@newsread3.news.pas.earthlink.net...
>> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
>> news:wh4mg.139$lv.109@fed1read12:
>>
>>>
>>> "Slow Code" <sc@mo.mail> wrote in message
>>> news:cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net...
>>>> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
>>>> news:YGKlg.104$lv.41@fed1read12:
>>>>
>>>> >
>>>> > "dxAce" <dxAce@milestones.com> wrote in message
>>>> > news:44969559.30D72920@milestones.com...
>>>> >
>>>> >>
>>>> >> Anybody who can't pass the minimal 5 WPM doesn't deserve a license.
>>>> >
>>>> > That's needlessly insulting.
>>>>
>>>>
>>>> No it isn't.
>>>>
>>>> Some things in life require you do a little work to enjoy their
>>>> benefits. You don't want to learn CW, you shouldn't be allowed on ham
>>>> radio.
>>>>
>>>> And Five words per minute ain't a code test. I can fart five words per
>>>> minute. Anyone that can't learn 5 wpm is either lazy or a tard and
>>>> should stick to CB, FRS, and cell phones.
>>>
>>> I am a gainfully-employed degreed engineer with an above-average IQ
>>> and dyslexia. You are beneath contempt.
>>
>>
>> Anyone else hear a tiny violin playing?
>>
>>
>> sc
```

>
> No, I see a newsgroup clown that can't accept the fact that this man
> learned to succeed despite his dyslexia. Instead of offering ideas that
> could help him learn code you decide to insult him. You sit and whine
> about how ham radio is going to shit because they allow no code tech
> licensing and possibly doing away with code altogether. But you missed the
> biggest point with ham radio it was to help people. Did you help this man
> by offering alternative options to learn code? No, you insult him instead.
> It is you and your kind that will be the downfall of ham radio. Blame
> yourself.

Well I described a number of alternatives to learning and he persists in saying he cannot learn code. Now I have not insulted him that I know of (although it's difficult to predict what one might take as an insult). However, if someone truly is incapable of learning code, then they are unable to learn to understand the spoken word and to speak. The fact that he can speak and understand the spoken word means he can learn code at the basic level of 5wpm. He is his own biggest enemy.

Dee Flint, N8UZE

4600. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 23:14:14 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <avFmg.48993$fb2.13033@newssvr27.news.prodigy.net>
Source record: 57392
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Dee Flint wrote:
> Well I described a number of alternatives to learning and he persists in
> saying he cannot learn code. ... The fact that
> he can speak and understand the spoken word means he can learn code at the
> basic level of 5wpm.

A completely deaf person can speak and read lips but he/she
still cannot even hear Morse code. What you need to understand
is that something that seems normal to you is missing in some
people. If an amateur radio license required dunking a basket-
ball, could you do it? As one who can dunk a basketball, I can
tell you all you need is enough will and effort and you can do it.
--
73, Cecil http://www.qsl.net/w5dxp

4601. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 23:22:57 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129m9ijcnshm47f@corp.supernews.com>
Source record: 57393
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"David" <rickets@knac.com> wrote in message
news:hl2m92p1ggaq8041erjbk7rm4ekg1mu07i@4ax.com...
> On Thu, 22 Jun 2006 15:34:52 -0500, "DrDeath"
> <drdeath555usb@yahoo.com> wrote:
>
>
>>
>>India is not a country we rely on to build super companies (for lack of a
>>better term). Take a look at what we send to India. Toxic chemical
>>factories
>>that would be choked to death by special interest groups and politicians.
>>We
>>also outsource technical support, which is a waste of time and money, good
>>thing companies don't pay them much, but it's a cheap way of saying "we
>>have
>>tech support" without truly having it. Look at the shoe mfg. industry, all
>>moved to third world slave labor countries. Good for the shoe industry as
>>they no longer have to deal with unions and we keep management and
>>development in countries that have the talent and resources to maintain
>>state of the art products. Look at how the auto industry has changed. They
>>sent 1000s of jobs overseas to cut down on union labor (with management
>>and
>>R&D in the US), and the Japs are opening plants in the US (with management
>>and R&D in Japan) that will never deal with the UAW. I could go on forever
>>with this post (and talk about NAFTA), but will end my rave at this point.
>>BTW, changed subject header as it didn't seem to fit. I would have trimmed
>>a
>>few NGs but am unsure what groups you are subscribed to.
>>
>>
> The purpose of business is to keep people busy.
>
No, It is to make money.

4602. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 23:30:29 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129ma0n51o0kva6@corp.supernews.com>
Source record: 57394
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Dave" <W1MCE@comcast.net> wrote in message
news:RaKdnd7qlvY1iwbZnZ2dnUVZ_vWdnZ2d@comcast.com...
> DrDeath wrote:
>
> SNIPPED
>>
>> Something I just thought of at the spur of the moment (not to mention
>> keeps me on topic), some disabled person should sue to remove ALL code
>> requirements, or offer an exclusion to those with disabilities to not
>> have to take ANY code test under the Americans with Disability Act. I'm
>> sure that person could even get a free ACLU lawyer to handle it.
>
> Many years ago, 1950s, there was a very active 10 meter ham in Danvers,
> Massachusetts, during the period of Class A, B and C licenses. He was an
> arthritic quadriplegic. He was wheel chair bound, lived alone, and
> required visiting help to get into and out of bed and have his meals
> prepared and served.
>
> He had a Class C [Conditional] license. He learned to copy 'read' CW in
> his head although he did not have the ability to send. I don't think he
> would consider a lawsuit appropriate.
>
> Some of the OTs on this list may have worked him. W1JFS, Les MacCrakin.
> God Rest His Soul.
>
> /s/ DD, W1MCE
>
He may not, but others that may be dyslexic, deaf, or other handicapped
person may deem a lawsuit appropriate.

4603. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 23:37:34 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129mae0tfsbij90@corp.supernews.com>
Source record: 57395
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
"Dee Flint" <deeflint01@comcast.net> wrote in message
news:bJSdnRBXL9F9gwbZnZ2dnUVZ_qydnZ2d@comcast.com...
>
> "DrDeath" <drdeath555usb@yahoo.com> wrote in message
> news:129lvmgofeujhbd@corp.supernews.com...
>> "Slow Code" <sc.h@m.mail> wrote in message
>> news:FXkmg.15$ii.9@newsread3.news.pas.earthlink.net...
>>> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
>>> news:wh4mg.139$lv.109@fed1read12:
>>>
>>>>
>>>> "Slow Code" <sc@mo.mail> wrote in message
>>>> news:cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net...
>>>>> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
>>>>> news:YGKlg.104$lv.41@fed1read12:
>>>>>
>>>>> >
>>>>> > "dxAce" <dxAce@milestones.com> wrote in message
>>>>> > news:44969559.30D72920@milestones.com...
>>>>> >
>>>>> >>
>>>>> >> Anybody who can't pass the minimal 5 WPM doesn't deserve a license.
>>>>> >
>>>>> > That's needlessly insulting.
>>>>>
>>>>>
>>>>> No it isn't.
>>>>>
>>>>> Some things in life require you do a little work to enjoy their
>>>>> benefits. You don't want to learn CW, you shouldn't be allowed on ham
>>>>> radio.
>>>>>
>>>>> And Five words per minute ain't a code test. I can fart five words
>>>>> per
>>>>> minute. Anyone that can't learn 5 wpm is either lazy or a tard and
>>>>> should stick to CB, FRS, and cell phones.
>>>>
>>>> I am a gainfully-employed degreed engineer with an above-average IQ
>>>> and dyslexia. You are beneath contempt.
>>>
>>>
```

>>> Anyone else hear a tiny violin playing?
>>>
>>>
>>> sc
>>
>> No, I see a newsgroup clown that can't accept the fact that this man
>> learned to succeed despite his dyslexia. Instead of offering ideas that
>> could help him learn code you decide to insult him. You sit and whine
>> about how ham radio is going to shit because they allow no code tech
>> licensing and possibly doing away with code altogether. But you missed
>> the biggest point with ham radio it was to help people. Did you help this
>> man by offering alternative options to learn code? No, you insult him
>> instead. It is you and your kind that will be the downfall of ham radio.
>> Blame yourself.
>
> Well I described a number of alternatives to learning and he persists in
> saying he cannot learn code. Now I have not insulted him that I know of
> (although it's difficult to predict what one might take as an insult).
> However, if someone truly is incapable of learning code, then they are
> unable to learn to understand the spoken word and to speak. The fact that
> he can speak and understand the spoken word means he can learn code at the
> basic level of 5wpm. He is his own biggest enemy.
>
> Dee Flint, N8UZE
>

I was unaware of your offers of alternative measures as it wasn't in this
thread. I agree, if he has alternatives at his disposal, it's on him to take
advantage of them.

4604. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 23:50:02 UTC
From: notbob <notbob@nothome.com>
Message-ID: <BoydnVB-kZA3sQbZnZ2dnUVZ_umdnZ2d@comcast.com>
Source record: 57396
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

On 2006-06-22, Dave <W1MCE@comcast.net> wrote:

> o meet the technical requirements established by your customer,

> Economics is only 1/3 of good engineering talent.

My point exactly. Recruiting foreign eng talent is driven primarily
by economic reasons. The oft repeated lament by corporate flacks and
politicians that we lack sufficient talent at home is a damn lie.

nb

4605. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-22 23:51:10 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129mb7gtgb7fo46@corp.supernews.com>
Source record: 57397
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:avFmg.48993$fb2.13033@newssvr27.news.prodigy.net...
> Dee Flint wrote:
>> Well I described a number of alternatives to learning and he persists in
>> saying he cannot learn code. ... The fact that
>> he can speak and understand the spoken word means he can learn code at
>> the basic level of 5wpm.
>
> A completely deaf person can speak and read lips but he/she
> still cannot even hear Morse code. What you need to understand
> is that something that seems normal to you is missing in some
> people. If an amateur radio license required dunking a basket-
> ball, could you do it? As one who can dunk a basketball, I can
> tell you all you need is enough will and effort and you can do it.
> --
> 73, Cecil http://www.qsl.net/w5dxp

With deaf people use can use a light or a subwoofer for them to copy code. I don't want to stereotype deaf people, but I have found many of them to be hooked on entitlements and expect unreasonable accommodations. I have a relative that refuses to wear a hearing aid, and then gets angry when there are communication problems. This person is physically able to work; yet sits around on my tax dollars playing the feel sorry for me card.

4606. Re: How to model a 6:1 ratio balun using NEC2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 00:06:34 UTC
From: "g. beat"
Message-ID: <nLKdnfj8ta0QrQbZnZ2dnUVZ_rOdnZ2d@comcast.com>
Source record: 57398

<KC2PIH@gmail.com> wrote in message
news:1150996648.944802.242350@c74g2000cwc.googlegroups.com...
>I am using Nec Win Plus (NEC2) to view the SWR curve of my modeled
> antenna. The actual antenna uses a 6:1 ratio balun. Is it incorrect
> to just change the characteristic impedance of the line from 50 ohms to
> 300 ohms to see what effect a 6:1 balun would have on the SWR values? I
> was just assuming that the line impedance was only really needed to
> calcuate SWR - hopefully I am right.
>
> Thanks,
> Scott, WU2X
>

Inside a W2AU balun (1:1) - in case you were curious.
http://www.the-s38-guy.com/Page_78x.html

w9gb

4607. Re: How to model a 6:1 ratio balun using NEC2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 00:15:17 UTC
From: mcclements@gmail.com
Message-ID: <1151021717.845950.94270@r2g2000cwb.googlegroups.com>
Source record: 57399

I actually had a Unadilla W2AU fail from that exact wire coming off
mine inside.
-Scott, WU2X

g. beat wrote:
> <KC2PIH@gmail.com> wrote in message
> news:1150996648.944802.242350@c74g2000cwc.googlegroups.com...
> >I am using Nec Win Plus (NEC2) to view the SWR curve of my modeled
> > antenna. The actual antenna uses a 6:1 ratio balun. Is it incorrect
> > to just change the characteristic impedance of the line from 50 ohms to
> > 300 ohms to see what effect a 6:1 balun would have on the SWR values? I
> > was just assuming that the line impedance was only really needed to
> > calcuate SWR - hopefully I am right.
> >
> > Thanks,
> > Scott, WU2X
> >
>
> Inside a W2AU balun (1:1) - in case you were curious.
> http://www.the-s38-guy.com/Page_78x.html
>
> w9gb

4608. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 00:25:17 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <NxGmg.55613$Lm5.14001@newssvr12.news.prodigy.com>
Source record: 57401
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

DrDeath wrote:
> I have found many of them to be
> hooked on entitlements and expect unreasonable accommodations.

Well then, why not just declare deafness to be a
capital crime in order to solve your personal
problem with deaf people?
--
73, Cecil http://www.qsl.net/w5dxp

4609. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 00:25:47 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <129md8dpa74dk64@corp.supernews.com>
Source record: 57400
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Cecil Moore wrote:

> Dee Flint wrote:
>
>> Well I described a number of alternatives to learning and he persists
>> in saying he cannot learn code. ... The fact that
>> he can speak and understand the spoken word means he can learn code at
>> the basic level of 5wpm.
>
>
> A completely deaf person can speak and read lips but he/she
> still cannot even hear Morse code. What you need to understand
> is that something that seems normal to you is missing in some
> people. If an amateur radio license required dunking a basket-
> ball, could you do it? As one who can dunk a basketball, I can
> tell you all you need is enough will and effort and you can do it.

Deaf persons have succussfully completed the code portion of the testing at all levels of speed. Some use a vibrator attached to their wrist. Others us a light. As mentioned elsewhere "never say never".

Dave WD9BDZ

4610. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 00:35:05 UTC
From: w8ji@akorn.net
Message-ID: <1151022905.047059.104540@b68g2000cwa.googlegroups.com>
Source record: 57402

Cecil Moore wrote:
> But now let's allow signals to be introduced into the thread.
> My dipole was arcing once per second at the coax connector.
> I couldn't hear any signals. I estimate the signal to noise
> ratio under those conditions to be zero. Would you disagree?

So now you are saying you were talking about arcs in connectors?
Talk about diversions!

You SPECIFICALLY proposed the noise came from millions of dust
particles hitting the antenna each second. RF noise generated directly
by charged particles hitting the antenna. No arcs, no corona according
to YOU. Not me!

> I modified my dipole into a folded dipole. The arcing ceased
> and I could then hear signals. I estimate the signal to noise
> ratio was not zero any more. Would you disagree?

Well, I would agree you have a VERY screwed up system to start with if
you had a big antenna without a leak resistance that offered a high
resistance or reactance at radio frequencies.

I've said all from the very start no one should be so careless as to
float the antenna.

> I really question the IQ of anyone who asserts that eliminating
> arcing in a system doesn't reduce the noise. I assume you are
> not a member of MENSA. :-)

Nice tactic. Attack the other guy while totally changing what you
originally claimed.
Of course anyone can read back and see you were the one who claimed the
noise was from particles hitting the antenna.

Anyway, I'm glad you realized your folded dipole nonsense about the dc
loop stopping p-static from particle noise as they hit the antenna was
just that, and now you realize it is charge differences and arcing and
forms of arcing that causes the problems.

Pretty soon you will realize the largest charge difference is from the
air and things in the air around the antenna and earth that causes the
problem, and that grounding the antenna doesn't reduce that problem.

There's hope for you yet!

73 Tom

4611. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 00:55:10 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129mevft6beh160@corp.supernews.com>
Source record: 57403
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:NxGmg.55613$Lm5.14001@newssvr12.news.prodigy.com...
> DrDeath wrote:
>> I have found many of them to be hooked on entitlements and expect
>> unreasonable accommodations.
>
> Well then, why not just declare deafness to be a
> capital crime in order to solve your personal
> problem with deaf people?
> --
> 73, Cecil http://www.qsl.net/w5dxp

I do not have a personal problem with deaf people. If you would leave my post intact maybe you and others would comprehend that. You just want to turn what was an on topic post into a flame war. You are not worth the time and effort. <plonk>

4612. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:08:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Y9Hmg.71585$4L1.67683@newssvr11.news.prodigy.com>
Source record: 57404
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

David G. Nagel wrote:
> Deaf persons have succussfully completed the code portion of the testing
> at all levels of speed. Some use a vibrator attached to their wrist.
> Others us a light. As mentioned elsewhere "never say never".

But that certainly doesn't satisfy the letter of the regulations.
To do that, they must "copy by ear".
--
73, Cecil http://www.qsl.net/w5dxp

4613. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:09:06 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622210907.921$Dw@newsreader.com>
Source record: 57405
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx,rec.radio.cb

"DrDeath" <drdeath555usb@yahoo.com> wrote:
>> Since I am of Native American ancestry, the airwaves belong to my
>> people.
> Therefore all non Native Americans must immediately surrender their
> license. We will allow you to monitor transmissions as we plan to use the
> airwaves to advertise our casinos.
>
> This is obviously a joke so don't flame me.
>
No fire waters right after the pow-wow, k? (you fuckers act crazy) :P

4614. Re: BNC power capacity

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:14:46 UTC
From: w8ji@akorn.net
Message-ID: <1151025286.387500.244050@i40g2000cwc.googlegroups.com>
Source record: 57406

Ken Bessler wrote:
> How much power can a BNC handle? rg58 coax, 1.3:1 swr,
> say, 54mhz, indoor connection. I'm using a BNC jumper between
> my amp and my antenna switch. I use BNC so I can d/c quickly
> when a t-storm comes in the area.

Ken,

The connector itself is dimensioned almost the same as a type N
connector.

The limiting factor assuming a good quality properly installed BNC
connector is the cable, not the connector.

If you use a good high temperature cable in a dry room-temperature
environment 500 watts extended time with carrier is a reasonable amount
of power. That power increases quite a bit for shorter duty cycles.

We used BNC's on a 3500 watt 30 uS RF pulse generator at 40.68MHz, and
I've used them with CW and SSB with good Teflon cables at 1500 watts on
30 MHz as quick disconnects.

If you carefully exam the BNC you will see it is nearly identical to a
type N in air gap to ground and pin diameter and penetration depth. The
real problem is the cable, not the connector.

73 Tom

4615. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:21:07 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622212109.461$6g@newsreader.com>
Source record: 57407
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"DrDeath" <drdeath555usb@yahoo.com> wrote:
>> With deaf people use can use a light or a subwoofer for them to copy
> code.
>
Wonder why no-code ass hats like lee scott, eric oyen, doug adair, and mark morgan can't get it done? (they're not deaf, just brain dead hud dwelling sissy's)

CW is for old people anyway aint it? :)

4616. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:28:23 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <XsHmg.71590$4L1.25563@newssvr11.news.prodigy.com>
Source record: 57408

w8ji@akorn.net wrote:
> Cecil Moore wrote:
>> But now let's allow signals to be introduced into the thread.
>> My dipole was arcing once per second at the coax connector.
>> I couldn't hear any signals. I estimate the signal to noise
>> ratio under those conditions to be zero. Would you disagree?
>
> So now you are saying you were talking about arcs in connectors?

I have been very careful from the very beginning of this
thread to specify that the problem I was trying to solve
was arcing at the coax connector. You said a folded dipole
cannot solve that problem. You were wrong.

> You SPECIFICALLY proposed the noise came from millions of dust
> particles hitting the antenna each second. RF noise generated directly
> by charged particles hitting the antenna. No arcs, no corona according
> to YOU. Not me!

Sorry, I even said the arcing scorched my carpet when the coax
connector was disconnected. Anyone who wants to check the history
of this thread can verify that. Your assertion that a folded dipole
wouldn't change the noise level was 100% false.

> Nice tactic. Attack the other guy while totally changing what you
> originally claimed.

If you can prove that I changed what I originally claimed, I
will write you a check for $1000. From the very beginning of
this argument, my problem was arcing. You asserted that eliminating
arcing didn't change the noise level. You were wrong. Anyone who
wants to can go back and verify those facts can do so.

> Of course anyone can read back and see you were the one who claimed the
> noise was from particles hitting the antenna.

Yes, it was, and it caused arcing which I needed to eliminate.
The folded dipole eliminated the problem contrary to what you
asserted.

> ... and that grounding the antenna doesn't reduce that problem.

Grounding the antenna eliminated the arcing which was my problem.
Sorry about that, Tom, but your ignorance has been exposed. Seems
you need a tutorial on how a DC arc can convert energy to RF
noise.
--

73, Cecil http://www.qsl.net/w5dxp

4617. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:31:06 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <uvHmg.71591$4L1.31623@newssvr11.news.prodigy.com>
Source record: 57410
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Steveo wrote:
> Wonder why no-code ass hats like lee scott, eric oyen, doug adair, and mark
> morgan can't get it done?

Can you dunk a basketball? If not, get back to us when you can.
--
73, Cecil http://www.qsl.net/w5dxp

4618. Re: Elimination of slow code..who would give a fuck?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:31:16 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622213117.873$9G_-_@newsreader.com>
Source record: 57409
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"DrDeath" <drdeath555usb@yahoo.com> wrote:
>> No, I see a newsgroup clown
>
Me too. Slow code and his half dozen sock puppets comes to mind when I
think of a newsgroup assclown.

(slow code generally nym shifts and posts gay shit below here(stand by)

4619. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:38:09 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622213811.188$kD@newsreader.com>
Source record: 57411
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
Cecil Moore <mycall@hotmail.com> wrote:
> Steveo wrote:
> > Wonder why no-code ass hats like lee scott, eric oyen, doug adair, and
> > mark morgan can't get it done?
>
> Can you dunk a basketball? If not, get back to us when you can.
>
I didn't know that was the hitch..can you still dunk?
```

4620. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:43:33 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622214335.020$uF@newsreader.com>
Source record: 57412
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"DrDeath" <drdeath555usb@yahoo.com> wrote:
-snipper-
> Mark chooses to sit on
> his ass sucking the entitlement system dry and contributing nothing to
> society, while this person decided to make the best of his what God gave
> him and he contributes to the same entitlement system that Mark chooses
> to deplete.
>
Testify! That asswipe is too dumb to come in out of the rain. He's best
left ignored.

4621. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:50:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ENHmg.71592$4L1.28612@newssvr11.news.prodigy.com>
Source record: 57413
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Steveo wrote:
> Cecil Moore <mycall@hotmail.com> wrote:
>> Can you dunk a basketball? If not, get back to us when you can.
>>
> I didn't know that was the hitch..can you still dunk?

If I don my knee braces, I still can. Can you?

The point is that some things are possible for each
individual and other things are impossible. Anybody
who can't dunk a basketball or pass a MENSA exam should
know how a person feels when they can't learn Morse code.
I personally think it would improve the ARS to only allow
MENSA engineers to be a member. How does that make you feel?

One of the brightest engineers I know, who has a commercial
FCC license and was the engineer at an AM broadcast station,
couldn't get past 5wpm so he was condemned to Tech class for
30 years. He knows more about radio than any ten other hams.
--
73, Cecil http://www.qsl.net/w5dxp

4622. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:56:10 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151027770.726567.104680@c74g2000cwc.googlegroups.com>
Source record: 57414
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

```
Cecil Moore wrote:
> Steveo wrote:
> > Cecil Moore <mycall@hotmail.com> wrote:
> >> Can you dunk a basketball? If not, get back to us when you can.
> >>
> > I didn't know that was the hitch..can you still dunk?
>
> If I don my knee braces, I still can. Can you?
>
> The point is that some things are possible for each
> individual and other things are impossible. Anybody
> who can't dunk a basketball or pass a MENSA exam should
> know how a person feels when they can't learn Morse code.
Cecil as good as it is your analogy still fails thanks to the fact that
if I can drunk (and I have no idea wether I can or not) it only means
something In Basketball. now if one inabilty to duck a basketball
barred them from all sports then you rise closer to the level of what
the code test is in the ARS
> I personally think it would improve the ARS to only allow
> MENSA engineers to be a member. How does that make you feel?
>
> One of the brightest engineers I know, who has a commercial
> FCC license and was the engineer at an AM broadcast station,
> couldn't get past 5wpm so he was condemned to Tech class for
> 30 years. He knows more about radio than any ten other hams.
> --
> 73, Cecil http://www.qsl.net/w5dxp
```

4623. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:57:38 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622215740.506$G5@newsreader.com>
Source record: 57415
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
Cecil Moore <mycall@hotmail.com> wrote:
> Steveo wrote:
> > Cecil Moore <mycall@hotmail.com> wrote:
> >> Can you dunk a basketball? If not, get back to us when you can.
> >>
> > I didn't know that was the hitch..can you still dunk?
>
> If I don my knee braces, I still can.
>
How tall are you?
>
> Can you?
>
Nope, I never could tho. Where do you find those braces?
```

4624. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 01:59:18 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <WVHmg.71597$4L1.5607@newssvr11.news.prodigy.com>
Source record: 57416

w8ji@akorn.net wrote:
> Cecil Moore wrote:
>> But now let's allow signals to be introduced into the thread.
>> My dipole was arcing once per second at the coax connector.
>> I couldn't hear any signals. I estimate the signal to noise
>> ratio under those conditions to be zero. Would you disagree?
>
> So now you are saying you were talking about arcs in connectors?
> Talk about diversions!

Just to prove that you are fibbing, Tom, here is my posting
from two weeks ago in answer to one of your postings:
****
w8ji@akorn.net wrote:
> Try this test, wire a small 2.5 MHh RF choke across your antenna and
> check the before and after noise levels. They will not change.

That's exactly how I eliminated the noise and arcing on my
first bare-wire G5RV installed in Arizona.
****

How does it feel to be caught in a bold-faced lie?
--
73, Cecil, W5DXP

4625. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:01:34 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <2YHmg.71598$4L1.65499@newssvr11.news.prodigy.com>
Source record: 57417
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

an_old_friend wrote:
> Cecil as good as it is your analogy still fails thanks to the fact that
> if I can drunk (and I have no idea wether I can or not) it only means
> something In Basketball. now if one inabilty to duck a basketball
> barred them from all sports then you rise closer to the level of what
> the code test is in the ARS

What you don't seem to realize is that dunking a basketball
and knowing Morse code are equally useful in the ARS.
--
73, Cecil http://www.qsl.net/w5dxp

4626. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:04:37 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <QvednbvvBv3B0QbZnZ2dnUVZ_tadnZ2d@comcast.com>
Source record: 57418
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:avFmg.48993$fb2.13033@newssvr27.news.prodigy.net...
> Dee Flint wrote:
>> Well I described a number of alternatives to learning and he persists in
>> saying he cannot learn code. ... The fact that
>> he can speak and understand the spoken word means he can learn code at
>> the basic level of 5wpm.
>
> A completely deaf person can speak and read lips but he/she
> still cannot even hear Morse code. What you need to understand
> is that something that seems normal to you is missing in some
> people. If an amateur radio license required dunking a basket-
> ball, could you do it? As one who can dunk a basketball, I can
> tell you all you need is enough will and effort and you can do it.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Not a correct analogy. For starters, completely deaf people have learned the Morse code. Flashing lights and pulse pads have served their needs. Just as they have learned to speak and read lips, they can learn alternative methods of using code.

The 5wpm level is more equivalent to dunking a basketball in a basket that is just above head height rather than regulation professional height. Under those conditions, anyone can dunk a basketball.

The biggest reasons people "cannot" learn code are very simple.

1. They don't really want to and so subconsciously resist.
2. They have been subjected to poor training methods.
3. No one's ever taught them correct practice methods.
4. They have developed unrealistic expectations of the level of effort required.
5. Due to bad experiences resulting from the above items, they've convinced themselves they can't learn and so create a self-fulfilling prophecy.

Every problem that Sal has described has afflicted almost every student of Morse code (except perhaps for the very rare code geniuses). Forgetting letters right after learning them? Been there, done that. Confusing letters? Been there, done that. I've had to bow out of QSOs because my brain freezes up and refuses to keep copying.

It took me 3 months of daily practice of an hour or more every day to get to 5wpm. That's over 90 hours. The average person only needs about 30 hours. I experienced every problem that "Sal" has mentioned. I eventually went on to master the 20wpm. That took 9 months of the same intensive daily practice, over 270 hours. Fortunately I wasn't hobbled by the expectation of learning it in a few weeks. Luckily no one had ever told me I could learn it in a few days or weeks. So I just kept at it for however long it took.

Dee D. Flint, N8UZE

4627. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:05:16 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151028316.877431.103790@y41g2000cwy.googlegroups.com>
Source record: 57419
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

```
Cecil Moore wrote:
> an_old_friend wrote:
> > Cecil as good as it is your analogy still fails thanks to the fact that
> > if I can drunk (and I have no idea wether I can or not) it only means
> > something In Basketball. now if one inabilty to duck a basketball
> > barred them from all sports then you rise closer to the level of what
> > the code test is in the ARS
>
> What you don't seem to realize is that dunking a basketball
> and knowing Morse code are equally useful in the ARS.
well If Could dunk a basket ball it would be useful in being able to
put up antennas and such, but I begin to see your point
> --
> 73, Cecil http://www.qsl.net/w5dxp
```

4628. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:06:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <d0Img.71599$4L1.57923@newssvr11.news.prodigy.com>
Source record: 57420
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Steveo wrote:
> How tall are you?

6' 4"

> Where do you find those braces?

Here's a cheap version:
http://www.jointhealing.com/pages/productpages/edge.html
--
73, Cecil http://www.qsl.net/w5dxp

4629. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:09:09 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <Uf-dnRsy5e3x0AbZnZ2dnUVZ_qGdnZ2d@comcast.com>
Source record: 57421
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Y9Hmg.71585$4L1.67683@newssvr11.news.prodigy.com...
> David G. Nagel wrote:
>> Deaf persons have succussfully completed the code portion of the testing
>> at all levels of speed. Some use a vibrator attached to their wrist.
>> Others us a light. As mentioned elsewhere "never say never".
>
> But that certainly doesn't satisfy the letter of the regulations.
> To do that, they must "copy by ear".
> --
> 73, Cecil http://www.qsl.net/w5dxp

True enough but that accommodation has been accepted for a very long time.
The regulations also said that they must be by hand. A sending test hasn't
been used in decades except as an accommodation for people with hearing
problems, etc. The FCC itself had stopped administering a sending test
before they turned the testing over to the amateur community.

Dee Flint, N8UZE

4630. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:10:38 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <y4Img.71600$4L1.52180@newssvr11.news.prodigy.com>
Source record: 57422
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Dee Flint wrote:
> Not a correct analogy. For starters, completely deaf people have learned
> the Morse code. Flashing lights and pulse pads have served their needs.
> Just as they have learned to speak and read lips, they can learn alternative
> methods of using code.

But the letter of the law says they must receive Morse code
by ear. Anything else is a violation of that law. It's
like qualifying to be a life guard by doing a broad jump.
--
73, Cecil http://www.qsl.net/w5dxp

4631. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:11:15 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <rNCdnQoOA4Z20AbZnZ2dnUVZ_sqdnZ2d@comcast.com>
Source record: 57423
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:ENHmg.71592$4L1.28612@newssvr11.news.prodigy.com...
> Steveo wrote:
>> Cecil Moore <mycall@hotmail.com> wrote:
>>> Can you dunk a basketball? If not, get back to us when you can.
>>>
>> I didn't know that was the hitch..can you still dunk?
>
> If I don my knee braces, I still can. Can you?
>
> The point is that some things are possible for each
> individual and other things are impossible. Anybody
> who can't dunk a basketball or pass a MENSA exam should
> know how a person feels when they can't learn Morse code.
> I personally think it would improve the ARS to only allow
> MENSA engineers to be a member. How does that make you feel?
>
> One of the brightest engineers I know, who has a commercial
> FCC license and was the engineer at an AM broadcast station,
> couldn't get past 5wpm so he was condemned to Tech class for
> 30 years. He knows more about radio than any ten other hams.
> --
> 73, Cecil http://www.qsl.net/w5dxp

I do not believe the couldn't. I've listed the failure reasons in another
post.

Dee Flint, N8UZE

4632. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:13:19 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151028799.758807.72020@m73g2000cwd.googlegroups.com>
Source record: 57424
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

Dee Flint wrote:
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:avFmg.48993$fb2.13033@newssvr27.news.prodigy.net...
> > Dee Flint wrote:

> It took me 3 months of daily practice of an hour or more every day to get to
> 5wpm. That's over 90 hours.
try 5 years at 40minute per day, I frankly prefer not to do the math to
come up with the nuber of hours

and still NO sucess

now of course if you respond to me at all you blame my metohod or my
unkonwn to you teachers etc.

everything to avoid the central issue why is Code knowledge more
important than the rest of Ham radio combined

that is the issue of course I say more important since their question
in pools about cw that tip it from equal to the rest to more important

4633. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:16:53 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <T4udnfP97_Kg0gbZnZ2dnUVZ_rKdnZ2d@comcast.com>
Source record: 57425
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:y4Img.71600$4L1.52180@newssvr11.news.prodigy.com...
> Dee Flint wrote:
>> Not a correct analogy. For starters, completely deaf people have learned
>> the Morse code. Flashing lights and pulse pads have served their needs.
>> Just as they have learned to speak and read lips, they can learn
>> alternative methods of using code.
>
> But the letter of the law says they must receive Morse code
> *by ear*. Anything else is a violation of that law. It's
> like qualifying to be a life guard by doing a broad jump.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Well the accommodation has been used and accepted for a very long time. The regs also say send by hand but no one has administered a sending test in decades except as an accommodation to individuals with difficulty in receiving.

Your life guard analogy doesn't hold up either. Instead it would be like allowing the life guard to use a row boat instead of swimming out to the victim.

Dee Flint, N8UZE

4634. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:17:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <jbImg.71602$4L1.37958@newssvr11.news.prodigy.com>
Source record: 57276
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Dee Flint wrote:
> True enough but that accommodation has been accepted for a very long time.
> The regulations also said that they must be by hand. A sending test hasn't
> been used in decades except as an accommodation for people with hearing
> problems, etc. The FCC itself had stopped administering a sending test
> before they turned the testing over to the amateur community.

You have just admitted that the Morse code test has been
irreversibly compromised already. A deaf person holding an
HF ham license cannot hear an SOS so the entire purpose of
forcing him to learn Morse code is bogus. He is going to
be using a digital mode, not sitting there with his hand
on the speaker waiting to feel an SOS from a sinking ship
that doesn't even have CW capability anymore.
--
73, Cecil http://www.qsl.net/w5dxp

4635. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:25:01 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <1iImg.71606$4L1.45899@newssvr11.news.prodigy.com>
Source record: 57277
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Dee Flint wrote:
> "Cecil Moore" <mycall@hotmail.com> wrote in message
>> One of the brightest engineers I know, who has a commercial
>> FCC license and was the engineer at an AM broadcast station,
>> couldn't get past 5wpm so he was condemned to Tech class for
>> 30 years. He knows more about radio than any ten other hams.
>> --
> I do not believe the couldn't. I've listed the failure reasons in another
> post.

Believe me, this guy shed tears when he couldn't get past
10 wpm. He has a physical mental tick every few seconds, akin
to epilepsy, that causes him to lose time. He cannot speak
one minute of continuous speech much less receive one minute
of continuous Morse code. When he speaks, some of the time
is silence while his brain is out to lunch. But when he
does speak it is worth ten times the average person's
utterances. He is an engineering genius.
--
73, Cecil http://www.qsl.net/w5dxp

4636. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:49:37 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129mlm3nr8l38cf@corp.supernews.com>
Source record: 57278
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx,rec.radio.cb

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060622210907.921$Dw@newsreader.com...
> "DrDeath" <drdeath555usb@yahoo.com> wrote:
>>> Since I am of Native American ancestry, the airwaves belong to my
>>> people.
>> Therefore all non Native Americans must immediately surrender their
>> license. We will allow you to monitor transmissions as we plan to use the
>> airwaves to advertise our casinos.
>>
>> This is obviously a joke so don't flame me.
>>
> No fire waters right after the pow-wow, k? (you fuckers act crazy) :P

How bout we smokem piece pipe?

4637. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:51:57 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129mlqhjcau6b44@corp.supernews.com>
Source record: 57279
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060622212109.461$6g@newsreader.com...
> "DrDeath" <drdeath555usb@yahoo.com> wrote:
>>> With deaf people use can use a light or a subwoofer for them to copy
>> code.
>>
> Wonder why no-code ass hats like lee scott, eric oyen, doug adair, and
> mark
> morgan can't get it done? (they're not deaf, just brain dead hud dwelling
> sissy's)
>
> CW is for old people anyway aint it? :)

LOL, I sure have no interest in CW. I must still be young :-P

4638. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 02:55:08 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129mm0eifbr8of3@corp.supernews.com>
Source record: 57280
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060622213811.188$kD@newsreader.com...
> Cecil Moore <mycall@hotmail.com> wrote:
>> Steveo wrote:
>> > Wonder why no-code ass hats like lee scott, eric oyen, doug adair, and
>> > mark morgan can't get it done?
>>
>> Can you dunk a basketball? If not, get back to us when you can.
>>
> I didn't know that was the hitch..can you still dunk?

That's what they are replacing the CW test with, the slam dunk. Now all
those hams with their Hover Rounds will have to give up their tickets.

4639. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:04:25 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622230426.975$UV@newsreader.com>
Source record: 57281
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
"DrDeath" <drdeath555usb@yahoo.com> wrote:
> "Steveo" <moparholic@hotmail.com> wrote in message
> news:20060622213811.188$kD@newsreader.com...
> > Cecil Moore <mycall@hotmail.com> wrote:
> >> Steveo wrote:
> >> > Wonder why no-code ass hats like lee scott, eric oyen, doug adair,
> >> > and mark morgan can't get it done?
> >>
> >> Can you dunk a basketball? If not, get back to us when you can.
> >>
> > I didn't know that was the hitch..can you still dunk?
>
> That's what they are replacing the CW test with, the slam dunk. Now all
> those hams with their Hover Rounds will have to give up their tickets.
>
They will not give up their biscuits and squirrl gravy 'till it kills em.
```

4640. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:06:54 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622230656.604$1M@newsreader.com>
Source record: 57282
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
"DrDeath" <drdeath555usb@yahoo.com> wrote:
> "Steveo" <moparholic@hotmail.com> wrote in message
> news:20060622212109.461$6g@newsreader.com...
> > "DrDeath" <drdeath555usb@yahoo.com> wrote:
> >>> With deaf people use can use a light or a subwoofer for them to copy
> >> code.
> >>
> > > Wonder why no-code ass hats like lee scott, eric oyen, doug adair, and
> > > mark
> > > morgan can't get it done? (they're not deaf, just brain dead hud
> > > dwelling sissy's)
> > >
> > > CW is for old people anyway aint it? :)
>
> LOL, I sure have no interest in CW. I must still be young :-P
>
Rock on you spring chicken. hehe
```

4641. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:10:29 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622231031.777$8q@newsreader.com>
Source record: 57283
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx,rec.radio.cb

"DrDeath" <drdeath555usb@yahoo.com> wrote:
> "Steveo" <moparholic@hotmail.com> wrote in message
> news:20060622210907.921$Dw@newsreader.com...
> > "DrDeath" <drdeath555usb@yahoo.com> wrote:
> >> Since I am of Native American ancestry, the airwaves belong to my
> >> people.
> >> Therefore all non Native Americans must immediately surrender their
> >> license. We will allow you to monitor transmissions as we plan to use
> >> the airwaves to advertise our casinos.
> >>
> >> This is obviously a joke so don't flame me.
> >>
> > No fire waters right after the pow-wow, k? (you fuckers act crazy) :P
>
> How bout we smokem piece pipe?
>
Cough..yes'm lol

4642. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:10:30 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129mmt8g13b1sdf@corp.supernews.com>
Source record: 57284
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060622214335.020$uF@newsreader.com...
> "DrDeath" <drdeath555usb@yahoo.com> wrote:
> -snipper-
>> Mark chooses to sit on
>> his ass sucking the entitlement system dry and contributing nothing to
>> society, while this person decided to make the best of his what God gave
>> him and he contributes to the same entitlement system that Mark chooses
>> to deplete.
>>
> Testify! That asswipe is too dumb to come in out of the rain. He's best
> left ignored.

I think most of the RRCB regulars have pretty much ignored him as of late.
It's his pathetic RRAP buddies that followed him here that keep him fueled

4643. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:13:59 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622231401.399$I5@newsreader.com>
Source record: 57285
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
Cecil Moore <mycall@hotmail.com> wrote:
> He cannot speak
> one minute of continuous speech much less receive one minute
> of continuous Morse code.
>
Don't let him be the drummer. (unless you're good at two stepping in time
in the marching band)
```

4644. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:14:56 UTC
From: w8ji@akorn.net
Message-ID: <1151032496.655092.149520@i40g2000cwc.googlegroups.com>
Source record: 57286

Cecil Moore wrote:

>
> How does it feel to be caught in a bold-faced lie?
> --
> 73, Cecil, W5DXP

Only you would know that Cecil.

4645. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:19:09 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <129mndf3jba40f0@corp.supernews.com>
Source record: 57288
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
Cecil Moore wrote:
> David G. Nagel wrote:
>
>> Deaf persons have succussfully completed the code portion of the
>> testing at all levels of speed. Some use a vibrator attached to their
>> wrist. Others us a light. As mentioned elsewhere "never say never".
>
>
> But that certainly doesn't satisfy the letter of the regulations.
> To do that, they must "copy by ear".

No, it does satisfy the alternative methods of copying code as
specified by the FCC.

Dave WD9BDZ
```

4646. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:19:10 UTC
From: james <george@washington.edu>
Message-ID: <qbnm92p400fgeo4f9pn8q8kfmqdek73o7u@4ax.com>
Source record: 57287
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

On Thu, 22 Jun 2006 17:28:45 -0500, "David G. Nagel" <nagel@core.com>
wrote:

>+++> The purpose of business is to keep people busy.
>+++>
>+++The purpose of business is to make money for it's owners. Everything
>+++else is charity.
>+++
>+++This aught to cause a flame war. :^)
*****

You are quite correct. Unfortunately some owners seem to never have
enough money.

james

4647. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:20:52 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622232054.024$C4@newsreader.com>
Source record: 57289
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"DrDeath" <drdeath555usb@yahoo.com> wrote:
> "Steveo" <moparholic@hotmail.com> wrote in message
> news:20060622214335.020$uF@newsreader.com...
> > "DrDeath" <drdeath555usb@yahoo.com> wrote:
> > -snipper-
> >> Mark chooses to sit on
> >> his ass sucking the entitlement system dry and contributing nothing to
> >> society, while this person decided to make the best of his what God
> >> gave him and he contributes to the same entitlement system that Mark
> >> chooses to deplete.
> >>
> > Testify! That asswipe is too dumb to come in out of the rain. He's best
> > left ignored.
>
> I think most of the RRCB regulars have pretty much ignored him as of
> late. It's his pathetic RRAP buddies that followed him here that keep him
> fueled
>
Yea, I stated a thread about that titled ham operators...why must they ruin
RRCB?

Eric Oyen was the only ht ham to tell me how wrong I was. Oh well.

(sock puppet hams generally post gay shit below here.

4648. Re: How to model a 6:1 ratio balun using NEC2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:24:00 UTC
From: "g. beat"
Message-ID: <I_adnc4VzuVPwwbZnZ2dnUVZ_sWdnZ2d@comcast.com>
Source record: 57290

> g. beat wrote:
>>
>> Inside a W2AU balun (1:1) - in case you were curious.
>> http://www.the-s38-guy.com/Page_78x.html
>>
>> w9gb
>
> <mcclements@gmail.com> wrote in message
>
> I actually had a Unadilla W2AU fail from that exact wire coming off
> mine inside.
> - Scott, WU2X
>
.. as they say " now you can rebuild him .. better faster, stronger than
before !
http://www.the-s38-guy.com/Page_83x.html

http://www.the-s38-guy.com/Page_81x.html
So when you see one in the junk pile OR at the $ 1 table at a hamfest - grab
it !
http://www.the-s38-guy.com/Page_76x.html

Greg, w9gb

4649. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:25:39 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151033139.903221.236170@p79g2000cwp.googlegroups.com>
Source record: 57291
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

David G. Nagel wrote:
> Cecil Moore wrote:
> > David G. Nagel wrote:
> >
> >> Deaf persons have succussfully completed the code portion of the
> >> testing at all levels of speed. Some use a vibrator attached to their
> >> wrist. Others us a light. As mentioned elsewhere "never say never".
> >
> >
> > But that certainly doesn't satisfy the letter of the regulations.
> > To do that, they must "copy by ear".
>
> No, it does satisfy the alternative methods of copying code as
> specified by the FCC.

but never satified the treaty lang on the subject and therefore in
violation of international law
>
> Dave WD9BDZ

4650. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:33:43 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622233345.995$sL@newsreader.com>
Source record: 57292
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
Cecil Moore <mycall@hotmail.com> wrote:
> He is going to
> be using a digital mode, not sitting there with his hand
> on the speaker waiting to feel an SOS
>
You should preface this with 'spoiler' next time. You ruined Titanic for
me.
```

4651. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:40:33 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622234035.742$gb@newsreader.com>
Source record: 57293
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Dee Flint" <deeflint01@comcast.net> wrote:
>> I do not believe the couldn't. I've listed the failure reasons in
> another post.
>
> Dee Flint, N8UZE
>
What's the gist of it, Dee?

4652. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:45:05 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622234507.550$Lr@newsreader.com>
Source record: 57295
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Cecil Moore <mycall@hotmail.com> wrote:
> Steveo wrote:
> > How tall are you?
>
> 6' 4"
>
You got me there, was 6' but gravity has made it less. :)
>
> > Where do you find those braces?
>
> Here's a cheap version:
> http://www.jointhealing.com/pages/productpages/edge.html
>
Thanks.

4653. Re: How to model a 6:1 ratio balun using NEC2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:48:45 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <cfom92h7r6qhmiej0b2nsgpb6g7ne75e6a@4ax.com>
Source record: 57294

I have rebuilt a W2AU balun for much the same reasons.

Like the referenced article, I removed the dual use of the electrical connection for support of the dipole wires.

An addition, I changed the coax connector for an N-type for a water resistant cable connection.

Having said that, I don't use it much, it is a "voltage balun" and most of my applications are better suited to a "current balun".

Owen
--

4654. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:49:00 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622234902.369$9T@newsreader.com>
Source record: 57296
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Dee Flint" <deeflint01@comcast.net> wrote:
>> The 5wpm level is more equivalent to dunking a basketball in a basket
> that is just above head height rather than regulation professional
> height. Under those conditions, anyone can dunk a basketball.
>
Who the hell came up with that for an analogy?

4655. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 03:54:00 UTC
From: Steveo <moparholic@hotmail.com>
Message-ID: <20060622235403.094$c7@newsreader.com>
Source record: 57297
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Dee Flint" <deeflint01@comcast.net> wrote:
> He is his own biggest enemy.
>
> Dee Flint, N8UZE
>
He's our tax dollars at work.

4656. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 04:15:21 UTC
From: Bob
Message-ID: <449b5d82$0$9894$88260bb3@free.teranews.com>
Source record: 57298
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

Why not get rid of the code? Really, why not make the written exam easier? Just make exams covers enough to make sure some idiot doesn't kill themselves or some body else.

Have only one class of license called "Amateur Radio License", with full access to all bands. No matter what class a person holds now it would be renewed as only "Amateur Radio License". Novices would be grandfathered in.You couldn't get any worse class of ham than we do with the 20wpm wonders.

--
Posted via a free Usenet account from http://www.teranews.com

4657. Re: How to model a 6:1 ratio balun using NEC2

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 04:55:09 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <bNidnYLfnbBV6QbZRVnyiQ@bt.com>
Source record: 57299

The model has to include a wideband, low-loss step-down transformer.
Which may or may not be a balun. Eg., a 300-ohm down to 50-ohm
transformer.

As Roy implies, such transformers are difficult to construct in
practice because performance depends on source and load impedances.
But very easy to incorporate in a mathematical model. Just divide
line impedance R+jX by 6. Consequently, the model will not accurately
predict what will happen in the real world unless terminating
impedances are fully taken into account.

A Spice simulation program is needed rather than an Eznec type.

Reg.

4658. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 05:19:24 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <wRKmg.447$RD.95@fed1read08>
Source record: 57300
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
"Dee Flint" <deeflint01@comcast.net> wrote in message
news:bJSdnRBXL9F9gwbZnZ2dnUVZ_qydnZ2d@comcast.com...
>
> "DrDeath" <drdeath555usb@yahoo.com> wrote in message
> news:129lvmgofeujhbd@corp.supernews.com...
> > "Slow Code" <sc.h@m.mail> wrote in message
> > news:FXkmg.15$ii.9@newsread3.news.pas.earthlink.net...
> >> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
> >> news:wh4mg.139$lv.109@fed1read12:
> >>
> >>>
> >>> "Slow Code" <sc@mo.mail> wrote in message
> >>> news:cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net...
> >>>> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
> >>>> news:YGKlg.104$lv.41@fed1read12:
> >>>>
> >>>> >
> >>>> > "dxAce" <dxAce@milestones.com> wrote in message
> >>>> > news:44969559.30D72920@milestones.com...
> >>>> >
> >>>> >> Anybody who can't pass the minimal 5 WPM doesn't deserve a
license.
> >>>> >
> >>>> > That's needlessly insulting.
> >>>>
> >>>>
> >>>> No it isn't.
> >>>>
> >>>> Some things in life require you do a little work to enjoy their
> >>>> benefits. You don't want to learn CW, you shouldn't be allowed on ham
> >>>> radio.
> >>>>
> >>>> And Five words per minute ain't a code test. I can fart five words
per
> >>>> minute. Anyone that can't learn 5 wpm is either lazy or a tard and
> >>>> should stick to CB, FRS, and cell phones.
> >>>
> >>> I am a gainfully-employed degreed engineer with an above-average IQ
> >>> and dyslexia. You are beneath contempt.
> >>
```

> >>
> >> Anyone else hear a tiny violin playing?
> >>
> >>
> >> sc
> >
> > No, I see a newsgroup clown that can't accept the fact that this man
> > learned to succeed despite his dyslexia. Instead of offering ideas that
> > could help him learn code you decide to insult him. You sit and whine
> > about how ham radio is going to shit because they allow no code tech
> > licensing and possibly doing away with code altogether. But you missed
the
> > biggest point with ham radio it was to help people. Did you help this
man
> > by offering alternative options to learn code? No, you insult him
instead.
> > It is you and your kind that will be the downfall of ham radio. Blame
> > yourself.
>
> Well I described a number of alternatives to learning and he persists in
> saying he cannot learn code. Now I have not insulted him that I know of
> (although it's difficult to predict what one might take as an insult).
> However, if someone truly is incapable of learning code, then they are
> unable to learn to understand the spoken word and to speak. The fact that
> he can speak and understand the spoken word means he can learn code at the
> basic level of 5wpm. He is his own biggest enemy.
>
> Dee Flint, N8UZE
>
>
I don't think you insulted me -- it was whoever said I don't deserve a
license.

However, I do think it's a bit of a stretch to say that I can learn code
just because I can speak and understand words. You should see what my raw
typing looks like before I go back and fix it prior to hitting send (or
should I say "sned," which was what I typed the first time -- typically four
or five of those per line.) It's pretty bad.

I'm thinking of trying to learn the dits and dahs as strings of written dots
and dashes on paper. According to everything I've been told or exposed to,
that is not recommended. All the training says the goal is to perceive each
letter as a consolidated unit of sounds without any intermediate translation
steps. Well, since I'm positive that isn't working, particularly for
characters of four or more elements ... maybe a graphical alternative is in
order.

4659. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 06:25:15 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151043915.891885.11580@m73g2000cwd.googlegroups.com>
Source record: 57301
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

Bob wrote:
> Why not get rid of the code? Really, why not make the written exam easier?
> Just make exams covers enough to make sure some idiot doesn't kill
> themselves or some body else.
>
> Have only one class of license called "Amateur Radio License", with full
> access to all bands. No matter what class a person holds now it would be
> renewed as only "Amateur Radio License". Novices would be grandfathered
> in.You couldn't get any worse class of ham than we do with the 20wpm
> wonders.
I pretty well agree with that sugestion Indeed I have ade it a number
of times prehaps pitched just slightly higher on the writentest side
but not much

4660. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 06:25:30 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151043930.228536.51590@c74g2000cwc.googlegroups.com>
Source record: 57302
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

```
Steveo wrote:
> "Dee Flint" <deeflint01@comcast.net> wrote:
> > He is his own biggest enemy.
> >
> > Dee Flint, N8UZE
> >
> He's our tax dollars at work.
you do love elling that lie
```

4661. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 06:30:32 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151044232.421616.38080@y41g2000cwy.googlegroups.com>
Source record: 57303
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.cb

Sal M. Onella wrote:
> "Dee Flint" <deeflint01@comcast.net> wrote in message
> news:bJSdnRBXL9F9gwbZnZ2dnUVZ_qydnZ2d@comcast.com...
> >

> > Dee Flint, N8UZE
> >
> >
> I don't think you insulted me -- it was whoever said I don't deserve a
> license.

I beliveveSal I was being addressed
>
> However, I do think it's a bit of a stretch to say that I can learn code
> just because I can speak and understand words. You should see what my raw
> typing looks like before I go back and fix it prior to hitting send (or
> should I say "sned," which was what I typed the first time -- typically four
> or five of those per line.) It's pretty bad.

indeed it likely looks much like what I send to the gruops on many
occasion (sine these folks were never satisfied with even my more
polished work)
>
> I'm thinking of trying to learn the dits and dahs as strings of written dots
> and dashes on paper. According to everything I've been told or exposed to,
> that is not recommended.
The ARRL VEC will not premite that in code even as an accomdation
> All the training says the goal is to perceive each
> letter as a consolidated unit of sounds without any intermediate translation
> steps. Well, since I'm positive that isn't working, particularly for
> characters of four or more elements ... maybe a graphical alternative is in
> order.

but it isn't allowed by the largest organiztion involed in code
testing, the erefusual of the Code testing side to enage in any
meanfull compromises is what finaly convinced to to aid and fight the
NoCode cause over some kind of compromise

4662. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 06:39:26 UTC
From: notbob <notbob@nothome.com>
Message-ID: <F4idnTPnyKkDEQbZnZ2dnUVZ_u2dnZ2d@comcast.com>
Source record: 57304
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
On 2006-06-23, Sal M. Onella <salmonella@food.poisoning.org> wrote:
> just because I can speak and understand words. You should see what my raw
> typing looks like before I go back and fix it prior to hitting send (or

HAh!! You think that's any different that most anyone else!? ;)

nb
```

4663. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 10:28:19 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <0b-dna0PZNH3XwbZnZ2dnUVZ_t-dnZ2d@comcast.com>
Source record: 57305
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:jbImg.71602$4L1.37958@newssvr11.news.prodigy.com...
> Dee Flint wrote:
>> True enough but that accommodation has been accepted for a very long
>> time. The regulations also said that they must be by hand. A sending
>> test hasn't been used in decades except as an accommodation for people
>> with hearing problems, etc. The FCC itself had stopped administering a
>> sending test before they turned the testing over to the amateur
>> community.
>
> You have just admitted that the Morse code test has been
> irreversibly compromised already. A deaf person holding an
> HF ham license cannot hear an SOS so the entire purpose of
> forcing him to learn Morse code is bogus. He is going to
> be using a digital mode, not sitting there with his hand
> on the speaker waiting to feel an SOS from a sinking ship
> that doesn't even have CW capability anymore.
> --
> 73, Cecil http://www.qsl.net/w5dxp

You have extracted something from my post that was never there. No one has ever said that the purpose of hams knowing code was to hear a ship sending an SOS.

In addition, he might have a light rigged for cw, which he could see as he moved about the room.

Digital modes fail on a regular basis due to static, auroras, etc. It's a good idea to have a non-voice, non-computer alternative.

Dee Flint, N8UZE

4664. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 10:35:27 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <qOWdnZ9KCfiLWQbZnZ2dnUVZ_tydnZ2d@comcast.com>
Source record: 57306
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:1iImg.71606$4L1.45899@newssvr11.news.prodigy.com...
> Dee Flint wrote:
>> "Cecil Moore" <mycall@hotmail.com> wrote in message
>>> One of the brightest engineers I know, who has a commercial
>>> FCC license and was the engineer at an AM broadcast station,
>>> couldn't get past 5wpm so he was condemned to Tech class for
>>> 30 years. He knows more about radio than any ten other hams.
>>> --
>> I do not believe the couldn't. I've listed the failure reasons in
>> another post.
>
> Believe me, this guy shed tears when he couldn't get past
> 10 wpm. He has a physical mental tick every few seconds, akin
> to epilepsy, that causes him to lose time. He cannot speak
> one minute of continuous speech much less receive one minute
> of continuous Morse code. When he speaks, some of the time
> is silence while his brain is out to lunch. But when he
> does speak it is worth ten times the average person's
> utterances. He is an engineering genius.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Since the late 80's, he could have gotten a medical waiver for the speeds higher than 5wpm. His case proves my point though. i.e. He did learn the spoken language despite his problem. He did learn the 5wpm despite his problem. His problem manifests itself in dealing fluently with the spoken language and also manifests itself in dealing with higher code speeds.

A problem that would affect the ability to learn code affects the ability to deal with the aural/spoken language.

Dee Flint, N8UZE

4665. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 10:36:15 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <k6Sdnby3hpHaWQbZnZ2dnUVZ_r6dnZ2d@comcast.com>
Source record: 57307
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
"DrDeath" <drdeath555usb@yahoo.com> wrote in message
news:129mlqhjcau6b44@corp.supernews.com...
> "Steveo" <moparholic@hotmail.com> wrote in message
> news:20060622212109.461$6g@newsreader.com...
>> "DrDeath" <drdeath555usb@yahoo.com> wrote:
>>>> With deaf people use can use a light or a subwoofer for them to copy
>>> code.
>>>
>> Wonder why no-code ass hats like lee scott, eric oyen, doug adair, and
>> mark
>> morgan can't get it done? (they're not deaf, just brain dead hud dwelling
>> sissy's)
>>
>> CW is for old people anyway aint it? :)
>
> LOL, I sure have no interest in CW. I must still be young :-P
>

The highest level of interest for learning the code is among the young.

Dee Flint, N8UZE
```

4666. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 10:46:45 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <mpWdnXXXWYQhWwbZnZ2dnUVZ_qidnZ2d@comcast.com>
Source record: 57308
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060622234035.742$gb@newsreader.com...
> "Dee Flint" <deeflint01@comcast.net> wrote:
>>> I do not believe the couldn't. I've listed the failure reasons in
>> another post.
>>
>> Dee Flint, N8UZE
>>
> What's the gist of it, Dee?

1. Incorrect training methods. These abound. There are more bad ones than good ones around.
2. Incorrect practice methods. Many teachers and students don't really know how it should be practiced. They just muddle along. Among other things, that means daily practice not just getting together with a teacher once a week. It also means breaking the daily practice session into 15 minute increments so the brain doesn't fatigue.
3. Unrealistic expectations is quite possibly the biggest one. People think they should be able to learn it in a few days or a couple of weeks. It takes the average person 30 hours to get to 5wpm. At an hour per day, that's one month. A more comfortable pace is 1/2 hour per day for two months. (It took me closer to 90 hours.)
4. Disapppointment created by the above issues causing a person to believe they can't do it thus creating a self-fulfilling prophecy.
5. Not wanting to do it so they end up fighting themselves subconsciously.
6. Negative reinforcement by those who tell them that code testing should be eliminated because it is "useless". Anyone who's seen HF trashed by static or aurora should know better.

Dee Flint, N8UZE

4667. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 10:48:49 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <Ba-dnS6Wuq-lWgbZnZ2dnUVZ_t2dnZ2d@comcast.com>
Source record: 57309
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Steveo" <moparholic@hotmail.com> wrote in message
news:20060622234902.369$9T@newsreader.com...
> "Dee Flint" <deeflint01@comcast.net> wrote:
>>> The 5wpm level is more equivalent to dunking a basketball in a basket
>> that is just above head height rather than regulation professional
>> height. Under those conditions, anyone can dunk a basketball.
>>
> Who the hell came up with that for an analogy?

It was part of a rebuttal to someone who said that requiring 5wpm code was
as reasonable as having to be able to dunk a basketball.

Dee Flint, N8UZE

4668. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 10:56:22 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <09adneMXu5xgVQbZnZ2dnUVZ_omdnZ2d@comcast.com>
Source record: 57310
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:wRKmg.447$RD.95@fed1read08...
>
> "Dee Flint" <deeflint01@comcast.net> wrote in message
> news:bJSdnRBXL9F9gwbZnZ2dnUVZ_qydnZ2d@comcast.com...

[snip]

>>
>> Well I described a number of alternatives to learning and he persists in
>> saying he cannot learn code. Now I have not insulted him that I know of
>> (although it's difficult to predict what one might take as an insult).
>> However, if someone truly is incapable of learning code, then they are
>> unable to learn to understand the spoken word and to speak. The fact
>> that
>> he can speak and understand the spoken word means he can learn code at
>> the
>> basic level of 5wpm. He is his own biggest enemy.
>>
>> Dee Flint, N8UZE
>>
>>
> I don't think you insulted me -- it was whoever said I don't deserve a
> license.
>
> However, I do think it's a bit of a stretch to say that I can learn code
> just because I can speak and understand words. You should see what my raw
> typing looks like before I go back and fix it prior to hitting send (or
> should I say "sned," which was what I typed the first time -- typically
> four
> or five of those per line.) It's pretty bad.
>
> I'm thinking of trying to learn the dits and dahs as strings of written
> dots
> and dashes on paper. According to everything I've been told or exposed
> to,
> that is not recommended. All the training says the goal is to perceive
> each
> letter as a consolidated unit of sounds without any intermediate
> translation
> steps. Well, since I'm positive that isn't working, particularly for
> characters of four or more elements ... maybe a graphical alternative is

> in
> order.
>

Typing and reading are visually based. So it makes sense that those are a problem. But do you have difficulty saying words or hearing them? Just because the typing is a problem, doesn't mean that the aural/spoken is a problem. Reading/writing is a different activity than hearing/speaking and uses different parts of the brain. While I can't imagine a graphical method working for a dyslexic since it's visual, who can say for sure.

By the way, I still have problems with longer characters now and then or combinations of certain characters. I had an awful time trying to copy a call sign in a contest that began with SH5 (3 dots, 4 dots, 5 dots).

Dee Flint, N8UZE

4669. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 11:17:11 UTC
From: David <dhuisman@bigpond.net.au>
Message-ID: <X4Qmg.14730$ap3.9524@news-server.bigpond.net.au>
Source record: 57311
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Recently I can across a "music" track that is about 5 minutes long that
teaches Morse by the sound of the characters.

If you would find this helpful I may be able to get a copy of it and
place it on an ftp server for you.

Regards

David

Dee Flint wrote:
> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
> news:wRKmg.447$RD.95@fed1read08...
>> "Dee Flint" <deeflint01@comcast.net> wrote in message
>> news:bJSdnRBXL9F9gwbZnZ2dnUVZ_qydnZ2d@comcast.com...
>
> [snip]
>
>>> Well I described a number of alternatives to learning and he persists in
>>> saying he cannot learn code. Now I have not insulted him that I know of
>>> (although it's difficult to predict what one might take as an insult).
>>> However, if someone truly is incapable of learning code, then they are
>>> unable to learn to understand the spoken word and to speak. The fact
>>> that
>>> he can speak and understand the spoken word means he can learn code at
>>> the
>>> basic level of 5wpm. He is his own biggest enemy.
>>>
>>> Dee Flint, N8UZE
>>>
>>>
>> I don't think you insulted me -- it was whoever said I don't deserve a
>> license.
>>
>> However, I do think it's a bit of a stretch to say that I can learn code
>> just because I can speak and understand words. You should see what my raw
>> typing looks like before I go back and fix it prior to hitting send (or
>> should I say "sned," which was what I typed the first time -- typically
>> four
>> or five of those per line.) It's pretty bad.
>>
>> I'm thinking of trying to learn the dits and dahs as strings of written

>> dots
>> and dashes on paper. According to everything I've been told or exposed
>> to,
>> that is not recommended. All the training says the goal is to perceive
>> each
>> letter as a consolidated unit of sounds without any intermediate
>> translation
>> steps. Well, since I'm positive that isn't working, particularly for
>> characters of four or more elements ... maybe a graphical alternative is
>> in
>> order.
>>
>
> Typing and reading are visually based. So it makes sense that those are a
> problem. But do you have difficulty saying words or hearing them? Just
> because the typing is a problem, doesn't mean that the aural/spoken is a
> problem. Reading/writing is a different activity than hearing/speaking and
> uses different parts of the brain. While I can't imagine a graphical method
> working for a dyslexic since it's visual, who can say for sure.
>
> By the way, I still have problems with longer characters now and then or
> combinations of certain characters. I had an awful time trying to copy a
> call sign in a contest that began with SH5 (3 dots, 4 dots, 5 dots).
>
> Dee Flint, N8UZE
>
>

4670. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 11:49:19 UTC
From: james <george@washington.edu>
Message-ID: <3ukn92hpuksuhisq3nv4s5t5ojv65mrg3v@4ax.com>
Source record: 57312
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
On Thu, 22 Jun 2006 15:34:52 -0500, "DrDeath"
<drdeath555usb@yahoo.com> wrote:

>+++"notbob" <notbob@nothome.com> wrote in message
>+++news:1aOdnQMcX-kk9gTZnZ2dnUVZ_qadnZ2d@comcast.com...
>+++> On 2006-06-21, gravity <gravityzrainbow@yahoo.com> wrote:
>+++>>
>+++>> this is why we need to add critical analysis to the engineering
>+++>> curriculum.
>+++>
>+++> It matters not. When management lacks the same talent, engineers will
>+++> be chosen for economic rather than practical reasons. Outsourcing to
>+++> India and H1B visas are proof. The fact that India has yet to produce
>+++> a single Intel or Microsoft or H-P or Sony is lost on those whose who
>+++> fawn over those rote trained hordes.
>+++>
>+++> nb
>+++
>+++India is not a country we rely on to build super companies (for lack of a
>+++better term). Take a look at what we send to India. Toxic chemical factories
>+++that would be choked to death by special interest groups and politicians. We
>+++also outsource technical support, which is a waste of time and money, good
>+++thing companies don't pay them much, but it's a cheap way of saying "we have
>+++tech support" without truly having it. Look at the shoe mfg. industry, all
>+++moved to third world slave labor countries. Good for the shoe industry as
>+++they no longer have to deal with unions and we keep management and
>+++development in countries that have the talent and resources to maintain
>+++state of the art products. Look at how the auto industry has changed. They
>+++sent 1000s of jobs overseas to cut down on union labor (with management and
>+++R&D in the US), and the Japs are opening plants in the US (with management
>+++and R&D in Japan) that will never deal with the UAW. I could go on forever
>+++with this post (and talk about NAFTA), but will end my rave at this point.
>+++BTW, changed subject header as it didn't seem to fit. I would have trimmed a
>+++few NGs but am unsure what groups you are subscribed to.
>+++
*****************

Outsourcing started way back in the 70's. It has only been in the last
decade that anyone in the media and public paid any attention to it.
When layoffs became common place after the dotcom bust then the public
finally realized that the barn door was open and nearly half the cows
are gone. A bit to late.
```

james

4671. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 11:51:13 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e7gkjp$17no$1@f04n12.cac.psu.edu>
Source record: 57313

```
Tom Donaly wrote:
> Mike Coslo wrote:
>> Tom Donaly wrote:
>>
>>> gravity wrote:
>>>
>>>> "Tom Donaly" <dtdonaly@sbcglobal.net> wrote in message
>>>> news:LyFlg.69551$4L1.2176@newssvr11.news.prodigy.com...
>>>>
>>>>> Dave wrote:
>>>>>
>>>>>> Jim Kelley wrote:
>>>>>>
>>>>>>
>>>>>>>
>>>>>>> Tom Donaly wrote:
>>>>>>>
>>>>>>>
>>>>>>>
>>>>>>>> Where's the experimental evidence, Cecil?
>>>>>>>
>>>>>>>
>>>>>>>
>>>>>>>
>>>>>>>
>>>>>>> Ever heard of Ben Franklin? :-)
>>>>>>>
>>>>>>> 73, ac6xg
>>>>>>>
>>>>>>
>>>>>> Every winter here in New England we run numerous experiments,
>>>>>> every time
>>>>>> I walk across the living room and touch a metal door knob.
>>>>>>
>>>>>> The US military has an ESD specification of 25 KV @ 5 KOhms from a
>>>>>> healthy capacitor as a simulator.
>>>>>>
>>>>>> Electro static discharge on antennas has been around for years. It is
>>>>
>>>>
>>>>
>>>> real!
>>>>
>>>>>> Dry Climate and Wind are all that's needed. Now, is the Physics at
```

>>>>>> the
>>>>>> air molecule level [Oxygen, Nitrogen, etc.], ionized Oxygen or
>>>>>> Nitrogen
>>>>>> atoms, charged dust particle level [that just begs the issue ...
>>>>>> how did
>>>>>> the dust get charged?], Van De Graff level, etc.? Who knows?
>>>>>>
>>>>>> But, the antenna ESD is a very REAL effect. You can hypothesize the
>>>>>> cause all day. To solve the problem at the system level, I added
>>>>>> an ESD
>>>>>> bleed into my antenna switches.
>>>>>>
>>>>>> I'm going to filter this thread to the circular file.
>>>>>>
>>>>>
>>>>> No one said ESD didn't exist. But you hit the nail on the head so far
>>>>> as wind caused ESD, "Who knows?" I don't, and neither does Cecil,
>>>>> although he thinks he does.
>>>>> 73,
>>>>> Tom Donaly, KA6RUH
>>>>
>>>>
>>>>
>>>>
>>>> i thought it came from distant thunderstorms?
>>>>
>>>> and if wind blows an ELF system around, it does get noisier. i believe
>>>> that's due to physical movement of the antenna system.
>>>>
>>>> Gravity
>>>>
>>>>
>>>
>>> You could be right, who knows? Certainly not the people who
>>> are afraid to experiment.
>>
>>
>>
>> Just as a point of info Tom. Do you perform experiments to prove
>> or disprove matters to your satisfaction on everything before
>> accepting it? That takes a very special person to be ultimately
>> skeptical.
>>
>> Your posts would indicate that... or maybe that you just enjoy
>> busting on Cecil. 8^)
>>
>> - 73 de Mike KB3EIA -
>
> Actually, when it comes to some of the issues raised on this newsgroup,
> yes, I do. I don't see why I should believe what Cecil makes up in his

> head just because he makes it up in his head.

Okay, Tom. I'll accept that you have personal experimental results for
your statements. Not many do.

I'm not sure that anyone here believes Cecil just because he is Cecil.
I don't. Some times I see him posting his way into some very deep holes...

>
> "I can't believe _that_!" said Alice.
> "Can't you?" the Queen said in a pitying tone. "Try again: draw a
> long breath, and shut your eyes."
> Alice laughed. "There's no use trying," she said: "one can't believe
> impossible things."
> "I daresay you haven't had much practice," said the Queen. "When I
> was your age, I always did it for half-an-hour a day. Why, sometimes
> I've believed as many as six impossible things before breakfast. There
> goes the shawl again!"
>
> Cecil and the White Queen would get along well together.
> 73,
> Tom Donaly, KA6RUH

I am corrected. You both determine everything experimentally and enjoy
busting on Cecil. I assumed an "And" situation, while it was actually an
"OR" situation.. 8^)

- 73 de Mike KB3EIA -

4672. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 13:10:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <1LRmg.122463$dW3.21576@newssvr21.news.prodigy.com>
Source record: 57314

w8ji@akorn.net wrote:
> Cecil Moore wrote:
>> How does it feel to be caught in a bold-faced lie?
>
> Only you would know that Cecil.

You have known ever since June 10 that I have been talking
about *arcing* at the coax connector. Yet here it is
June 23 with you still pretending that you didn't know
I was talking about arcing. Here's a June 11 posting
following the June 9 one where I told you I was talking
about arcing.

> w8ji@akorn.net wrote:
>> When did you do that test?
>
> Around 1990 to cure the *arcing* at the coax connector
> during clear-sky high-wind conditions in the Arizona
> desert.

Please stop pretending that you didn't know I was talking
about arcing.

Going from a dipole to a folded dipole eliminated my arcing
problem.
--
73, Cecil http://www.qsl.net/w5dxp

4673. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 13:12:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <nNRmg.122464$dW3.118431@newssvr21.news.prodigy.com>
Source record: 57315
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

David G. Nagel wrote:
> Cecil Moore wrote:
>> But that certainly doesn't satisfy the letter of the regulations.
>> To do that, they must "copy by ear".
>
> No, it does satisfy the alternative methods of copying code as
> specified by the FCC.

Please quote part 97 where the FCC specifies alternative
methods.
--
73, Cecil http://www.qsl.net/w5dxp

4674. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 13:18:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <WSRmg.122465$dW3.41430@newssvr21.news.prodigy.com>
Source record: 57316
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Dee Flint wrote:
> No one has
> ever said that the purpose of hams knowing code was to hear a ship sending
> an SOS.

On the contrary, when I got my ham license in 1952, that
was the major reason given for the code requirement.
--
73, Cecil http://www.qsl.net/w5dxp

4675. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 13:20:57 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ZURmg.122467$dW3.62063@newssvr21.news.prodigy.com>
Source record: 57317
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Dee Flint wrote:
> Since the late 80's, he could have gotten a medical waiver for the speeds
> higher than 5wpm.

That's exactly what he did but it didn't make up for the
previous 30 years of being barred from the HF phone bands.
--
73, Cecil http://www.qsl.net/w5dxp

4676. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 13:57:08 UTC
From: kb9rqz_child_molester@yahoo.com
Message-ID: <1151071028.651260.83860@u72g2000cwu.googlegroups.com>
Source record: 57318
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

```
an old freind wrote:
> kb9rqz_child_molester@yahoo.com wrote:
> > an old friend wrote:
> > > peewee_lloyd_davies@yahoo.com wrote:
> > > > an old freind wrote:
> > > sex with
> > > >
> > > >
> > > > And You have sex with other man and goats, faggot!
> > > get help prevert
> > >
> > Says the self admitted homosexual deviant Mark Morgan.
> no say <whaaaaaaah!>

Says the child molester Mark Morgan the queer deviant!
```

4677. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 14:06:49 UTC
From: David <rickets@knac.com>
Message-ID: <u9tn92tmv5angta69k852on9jq12brc412@4ax.com>
Source record: 57319
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

On Thu, 22 Jun 2006 18:22:57 -0500, "DrDeath"
<drdeath555usb@yahoo.com> wrote:

>

>> The purpose of business is to keep people busy.
>>
>No, It is to make money.
>
>
Then it would be called moneyness.

Those gated communities won't protect you from the thundering hordes
of hungry people.

4678. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 14:08:49 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <RBSmg.2289$Yk.218@trnddc06>
Source record: 57320

Cecil Moore wrote:

> Then the argument boils down to whether the noise level threshold
> is *exactly* equal to the corona threshold. That means there is zero
> noise until 100 uA/cm^2 starts to flow through the air accompaning
> the corona. Can you appreciate how ridiculous such an argument
> really is?

Well, suppose you have a #18 ga stranded wire composed of 7 strands of #26. One strand is sticking up all by itself. The end of the strand (if cut off squarely) is about 0.0013 cm^2. So a current flow of 0.13 uA from the end of this strand is 100 uA/cm^2.

And, the situation is exacerbated by wire with smaller strands and with strands more pointed than by being squarely cut off.

John

4679. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 14:55:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <IhTmg.71705$4L1.28289@newssvr11.news.prodigy.com>
Source record: 57321

John - KD5YI wrote:
> Well, suppose you have a #18 ga stranded wire composed of 7 strands of
> #26. One strand is sticking up all by itself. The end of the strand (if
> cut off squarely) is about 0.0013 cm^2. So a current flow of 0.13 uA
> from the end of this strand is 100 uA/cm^2.

We can suppose all sorts of conditions to obtain corona.
There's absolutely no argument about that. The argument
is whether corona occurs 100% of the time on any and all
antennas with charged particle static. If corona occurs
only 99.9% of the time, the corona gang loses the argument.

The argument is whether corona *always* accompanies charged
particle noise. That's an exclusive assertion that there
exists no cases where corona doesn't accompany charged
particle noise.

I fully agree that corona *often* accompanies charged particle
noise but that's an inclusive assertion.

If enough particles hit the antenna to just
barely hear the noise on a receiver, the corona crowd says
that corona caused the noise. I would like to see some proof
for such a statement so far out of mainstream physics.

Can we suppose a condition where corona won't happen?
How about a #14 solid wire with rounded ends? Do you think
it could build up enough charged particle noise to be heard
in a receiver without the existence of corona?
--
73, Cecil, http://www.qsl.net/w5dxp

4680. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 14:56:59 UTC
From: Tom Donaly <dtdonaly@sbcglobal.net>
Message-ID: <%iTmg.71706$4L1.61111@newssvr11.news.prodigy.com>
Source record: 57322

Cecil Moore wrote:
...
>
> Going from a dipole to a folded dipole eliminated my arcing
> problem.

Thank you for sharing that with us, Cecil.
73,
Tom Donaly, KA6RUH

4681. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 15:19:59 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <zETmg.71718$4L1.32359@newssvr11.news.prodigy.com>
Source record: 57323

Tom Donaly wrote:
> Cecil Moore wrote:
>> Going from a dipole to a folded dipole eliminated my arcing
>> problem.
>
> Thank you for sharing that with us, Cecil.

Well, W8JI said going from a dipole to a folded dipole
doesn't change the noise level. Not only did it eliminate
arcing but it probably eliminated any trace of corona.
--
73, Cecil, http://www.qsl.net/w5dxp

4682. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 15:21:08 UTC
From: Noon-Air <Noon-Air@comcast.net>
Message-ID: <h7mdnXBqf_d7mwHZnZ2dnUVZ_rmdnZ2d@comcast.com>
Source record: 57324
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"David" <rickets@knac.com> wrote in message
news:u9tn92tmv5angta69k852on9jq12brc412@4ax.com...
> On Thu, 22 Jun 2006 18:22:57 -0500, "DrDeath"
> <drdeath555usb@yahoo.com> wrote:
>
>>
>
>>> The purpose of business is to keep people busy.
>>>
>>No, It is to make money.
>>
>>
> Then it would be called moneyness.
>
> Those gated communities won't protect you from the thundering hordes
> of hungry people.
>

"hungry" and "homeless" people are there by their own choice or by choices they have made in their past. The welfare system doesn't work, otherwise there wouldn't be 5 1/2 MILLION people dependant on it.

Yes..... I have a problem with the system when 28% of my *net* profits get paid to the feds to support lazy dead beats, and another 4% goes to the state for the same.

I am retired Military, I served my country for 22 years, My father was born in this country by the grace of god, and couldn't speek the language until he was in grade school. When I retired from the miltary, I started my company and have worked my ass off for 10 years to get to where I am now, finally starting to make a comfortable living.

There are too many jobs out there for folks to be unemployed, homeless, or hungry. Those that are unemployable are those who by their own choice, can't seem to show up to work, let alone on time...those who can't seem to show up for work sober and not hung over, and those who can't seem to be able to pass a drug screening. If I could find somebody that *COULD* meet those minimum standards and had a little common sense and a desire to learn, I would hire them in a heartbeat, and they will earn good money.

They have made their choices.... I for one am damned tired of having to foot the bill for their irresponsibility, lazyness, and feigned ignorance(you can't be ignorant and be able to sponge off the system)

4683. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 15:56:15 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1151078175.027720.94230@m73g2000cwd.googlegroups.com>
Source record: 57325
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

```
kb9rqz_child_molester@yahoo.com wrote:
> an old freind wrote:
> > kb9rqz_child_molester@yahoo.com wrote:
> > > an old friend wrote:
> > > > peewee_lloyd_davies@yahoo.com wrote:
> > > > > an old freind wrote:
> > > > sex with
> > > > >
> > > > >
> > > > > And You have sex with other man and goats, faggot!
> > > > get help prevert
> > >
> > > Says the self admitted homosexual deviant Mark Morgan.
> > no say <whaaaaaaah!>
>
> Says the child molester Mark Morgan the queer deviant!
nope says the self admted welladjueged bisexaul named Mark Morgan
and I say it again you are sick prevert obessed with vile libel the
only reason you get away with it is you have nothing worth the trouble
of taking
```

4684. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 16:02:47 UTC
From: Ken Finney <kenneth.c.finney@boeing.com>
Message-ID: <J1BLwM.LKH@news.boeing.com>
Source record: 57229
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"David G. Nagel" <nagel@core.com> wrote in message
news:129m6ct3rdtui3a@corp.supernews.com...
> David wrote:
>
>> On Thu, 22 Jun 2006 15:34:52 -0500, "DrDeath"
>> <drdeath555usb@yahoo.com> wrote:
>>
>>
>>
>>>India is not a country we rely on to build super companies (for lack of a
>>>better term). Take a look at what we send to India. Toxic chemical
>>>factories that would be choked to death by special interest groups and
>>>politicians. We also outsource technical support, which is a waste of
>>>time and money, good thing companies don't pay them much, but it's a
>>>cheap way of saying "we have tech support" without truly having it. Look
>>>at the shoe mfg. industry, all moved to third world slave labor
>>>countries. Good for the shoe industry as they no longer have to deal with
>>>unions and we keep management and development in countries that have the
>>>talent and resources to maintain state of the art products. Look at how
>>>the auto industry has changed. They sent 1000s of jobs overseas to cut
>>>down on union labor (with management and R&D in the US), and the Japs are
>>>opening plants in the US (with management and R&D in Japan) that will
>>>never deal with the UAW. I could go on forever with this post (and talk
>>>about NAFTA), but will end my rave at this point.
>>>BTW, changed subject header as it didn't seem to fit. I would have
>>>trimmed a few NGs but am unsure what groups you are subscribed to.
>>>
>>
>> The purpose of business is to keep people busy.
>>
> The purpose of business is to make money for it's owners. Everything else
> is charity.
>
> This aught to cause a flame war. :^)

No, everything else is criminal malfeasance.

4685. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 16:11:02 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1151079062.527418.130050@r2g2000cwb.googlegroups.com>
Source record: 57226
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dee Flint wrote:
> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
> news:wRKmg.447$RD.95@fed1read08...
> >
> > "Dee Flint" <deeflint01@comcast.net> wrote in message
> > news:bJSdnRBXL9F9gwbZnZ2dnUVZ_qydnZ2d@comcast.com...
>

> Typing and reading are visually based. So it makes sense that those are a
> problem. But do you have difficulty saying words or hearing them? Just
> because the typing is a problem, doesn't mean that the aural/spoken is a
> problem. Reading/writing is a different activity than hearing/speaking and
> uses different parts of the brain. While I can't imagine a graphical method
> working for a dyslexic since it's visual, who can say for sure.
you claim to have certain knowledge of whta is and isn't possible
>
> By the way, I still have problems with longer characters now and then or
> combinations of certain characters. I had an awful time trying to copy a
> call sign in a contest that began with SH5 (3 dots, 4 dots, 5 dots).
and you dare claim it must be doable by everyone else

you lies are becomeing tangled Dee
>
> Dee Flint, N8UZE

4686. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 16:18:13 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1151079492.943855.93760@b68g2000cwa.googlegroups.com>
Source record: 57227
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dee Flint wrote:
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:jbImg.71602$4L1.37958@newssvr11.news.prodigy.com...
> > Dee Flint wrote:
73, Cecil http://www.qsl.net/w5dxp
>
> You have extracted something from my post that was never there. No one has
> ever said that the purpose of hams knowing code was to hear a ship sending
> an SOS.
wrong again Dee Flint amny have said exactly that wether you have ever
been amoug them
>
> In addition, he might have a light rigged for cw, which he could see as he
> moved about the room.
backpedal
>
> Digital modes fail on a regular basis due to static, auroras, etc.
they do

How many times, say during Katrina did this occour

or for that matter name an insitance where digital mode failed , in an
emergency and Cw encoded morse got through and saved the day

>It's a
> good idea to have a non-voice, non-computer alternative.
why?

a clear alternive is to increase the over all number of stations to
decrease the chance that progation will fail to devlier the message
some where

and How does CW testing produce a working CW listening station
>
> Dee Flint, N8UZE

4687. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 16:19:21 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1151079561.146959.62760@i40g2000cwc.googlegroups.com>
Source record: 57228
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Dee Flint wrote:
> "DrDeath" <drdeath555usb@yahoo.com> wrote in message
> news:129mlqhjcau6b44@corp.supernews.com...
> > "Steveo" <moparholic@hotmail.com> wrote in message

> > LOL, I sure have no interest in CW. I must still be young :-P
> >
>
> The highest level of interest for learning the code is among the young.
then based on the seenses at VE testing Morse Code is truly doomed

why is it that you want tot eh ARS to go down with it?
>
> Dee Flint, N8UZE

4688. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 16:27:11 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1151080031.730901.208090@r2g2000cwb.googlegroups.com>
Source record: 57230
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

David wrote:
> Recently I can across a "music" track that is about 5 minutes long that
> teaches Morse by the sound of the characters.
>
> If you would find this helpful I may be able to get a copy of it and
> place it on an ftp server for you.
>
> Regards
>
> David
not clear who you are addresing

but this method get tried on most dyslexics and rarely works

why> gald I asked becuase most dyslexcs ebd up doing the easier for us
task on meoris 5 minutes of letter (learn though correcting our efforts
at the end) rather managing to sort of the tone

In Dyslexia, ones is up against one own brain and the methods one has
learned to work around the misfiring nurons most dyslexic learn very
effectve methods of dealing with, and the btter the devolped method is
the harder it is to defeat. Code testing tries to channel one down a
path of limited choices

4689. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 16:57:12 UTC
From: David <rickets@knac.com>
Message-ID: <3v6o92lpq71dibjr1qlmljih4lkqvjprfb@4ax.com>
Source record: 57231
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

On Fri, 23 Jun 2006 10:21:08 -0500, "Noon-Air" <Noon-Air@comcast.net>
wrote:

>
>"David" <rickets@knac.com> wrote in message
>news:u9tn92tmv5angta69k852on9jq12brc412@4ax.com...
>> On Thu, 22 Jun 2006 18:22:57 -0500, "DrDeath"
>> <drdeath555usb@yahoo.com> wrote:
>>
>>>
>>
>>>> The purpose of business is to keep people busy.
>>>>
>>>No, It is to make money.
>>>
>>>
>> Then it would be called moneyness.
>>
>> Those gated communities won't protect you from the thundering hordes
>> of hungry people.
>>
>
>"hungry" and "homeless" people are there by their own choice or by choices
>they have made in their past. The welfare system doesn't work, otherwise
>there wouldn't be 5 1/2 MILLION people dependant on it.
>
>Yes..... I have a problem with the system when 28% of my *net* profits get
>paid to the feds to support lazy dead beats, and another 4% goes to the
>state for the same.
>

???

(Reagan's Welfare Queen was a myth, you know.)

When a company moves offshore they do not reduce prices to the end
users. They increase their profits. Most big companies don't even
pay income taxes because they are legally running out of a drawer in
some Carribean island.

Eventually the middle class will be gone due to outsourcing. That
will be the end of the USA.

4690. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 17:31:59 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c25e4$0$14505$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57232
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> > Typing and reading are visually based. So it makes sense that those are
a
> > problem. But do you have difficulty saying words or hearing them? Just
> > because the typing is a problem, doesn't mean that the aural/spoken is a
> > problem. Reading/writing is a different activity than hearing/speaking
and
> > uses different parts of the brain. While I can't imagine a graphical
method
> > working for a dyslexic since it's visual, who can say for sure.
> you claim to have certain knowledge of whta is and isn't possible

you are probably correct. linguistics is mainly concerned with spoken language, not written. in some languages like English, you'll note that people kind of speak the words out in their brain. other languages like Mandarin seem to be converted directly from characters into ideas.

ok, what burns me up is people claiming they can't learn code. there are languages that are tonal, configurational, have bizarre sounds, that put the object before the subject, that have thousands of characters. 99% of the planet learns their native language!

code is NOT that different than a language. if you must, you can interpret it as tones, and simply write out the tones on a piece of paper and decode them.

Gravity

4691. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 17:34:16 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c266d$0$14505$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57233
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> > By the way, I still have problems with longer characters now and then or
> > combinations of certain characters. I had an awful time trying to copy
a
> > call sign in a contest that began with SH5 (3 dots, 4 dots, 5 dots).
> and you dare claim it must be doable by everyone else

same here!

i have trouble with high speed B, 6, 1, J. however, you can create a
practice regimen that focuses on these.

a trick for contests might be using a spectrograph or MFJ viewer. good
luck.

Gravity

4692. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 17:35:36 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c26bd$0$22410$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57234
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> > By the way, I still have problems with longer characters now and then or
> > combinations of certain characters. I had an awful time trying to copy
a
> > call sign in a contest that began with SH5 (3 dots, 4 dots, 5 dots).
> and you dare claim it must be doable by everyone else

good practice is beacons e.g. 10 meters. they are terse text, contain
slashes, and 5s since i hear Texas ones.

you sort of have to "decode" what the beacon is talking about.

Gravity

4693. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 17:38:25 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c2766$0$79632$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57235
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> How many times, say during Katrina did this occour

uh, if you are deserted on an island with a few buckets of electronics junk,
your best bet is CW.

if you a prisoner of war, CW could be invaluable in getting a message out.
there are many other cases where CW can be used in channels that don't
support audio.

i am a superior creature because i know CW! ;-)

Gravity

4694. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 17:47:52 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c299d$0$79459$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57236

> I'm not sure that anyone here believes Cecil just because he is Cecil.
> I don't. Some times I see him posting his way into some very deep holes...

that's what i see. he says something controversial, gets challenged, and
then scrambles for references. the problem is that many of the references
do not directly confirm what he's saying, and a bit of calculation is
required.

i did some googling, and certainly there are others with Cecil's position.

Gravity

4695. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 17:51:30 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c2a77$0$15916$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57237
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

>>A deaf person holding an
> > HF ham license cannot hear an SOS so the entire purpose of
> > forcing him to learn Morse code is bogus.

i hate to play devil's advocate, but i can read CW with spectral analysis
software. several of us on the very low bands are doing that.

yes, the chances of some deaf guy "hearing" an SOS is pretty slim.

Gravity

4696. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 18:01:25 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c2cca$0$79858$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57238
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

it's sad that people get alienated from hobbies. it's also a fact of life. i downloaded some composition software, and it turned out i SUCK at making digital music.

i can play the second movement of Moonlight Sonata, but that's about it.

i remember this girl in chemistry class. she studied 5 hours for a test. i studied 10 minutes. my score was 30 points higher than hers. i wasn't necessarily smarter than her, i just knew how to study, and same thing with CW.

Gravity

4697. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 18:05:34 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c2dc3$0$84074$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57239
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

i learned Morse Code at age 15. i got up to 25 WPM, perfect copy. i made QSOs, did a few contests, and quit for 9 years.

i now copy at 18 WPM, which makes me think i learned it like it was a language.

some suggestions. use Farnsworth, copying characters at 18 WPM is less annoying.

make QSOs! would you learn a language by using audio CDs, or would you talk to native speakers?

Gravity

4698. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 18:09:39 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c2eb8$0$74023$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57240
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

find out what the format of the test QSO is!

i didn't study much for my novice code test. i had no decent tapes, and i had to borrow my dad's computer to use software. computers back then were $2000 and no kid had one.

so anyway, i use Supermorse as recommended by my club. i get to the test, realize my code sucks, and luck out because they do a Supermorse QSO.

it's easy in today's world: free practice MP3s and $50 computers.

Gravity

4699. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 18:11:23 UTC
From: w8ji@akorn.net
Message-ID: <1151086283.178019.29870@u72g2000cwu.googlegroups.com>
Source record: 57241

gravity wrote:
> > I'm not sure that anyone here believes Cecil just because he is Cecil.
> > I don't. Some times I see him posting his way into some very deep holes...
>
> that's what i see. he says something controversial, gets challenged, and
> then scrambles for references. the problem is that many of the references
> do not directly confirm what he's saying, and a bit of calculation is
> required.

Rather than rationalize and walk through disagreements step-by-step
Cecil prefers to distort and bully.

His posting ratio averages 3.3:1, and sometimes reaches over 6:1.

4700. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 18:17:06 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c3078$0$12167$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57242
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

> The highest level of interest for learning the code is among the young.
>
> Dee Flint, N8UZE

if you are contesting or DXing, CW rules.

HF phone contests will drive you insane, esp if you want to win an award.
even 10 meter phone was wall to wall stations from 28.300 to 29.000. i had
phased Yagis, and had to go way high, or end up stomping on someone.

if you want to run DX, good luck with 100 watts on SSB.

Gravity

4701. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 18:25:28 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <gJ6dnZJRLeyirwHZnZ2dnUVZ_sudnZ2d@comcast.com>
Source record: 57243
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:WSRmg.122465$dW3.41430@newssvr21.news.prodigy.com...
> Dee Flint wrote:
>> No one has ever said that the purpose of hams knowing code was to hear a
>> ship sending an SOS.
>
> On the contrary, when I got my ham license in 1952, that
> was the major reason given for the code requirement.
> --
> 73, Cecil http://www.qsl.net/w5dxp

That may be what someone told you, but it was not the reason. The reason was that it was part of an overall "radio education" and it was one of the fundamentals of radio even in the 1950s.

Dee D. Flint, N8UZE

4702. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 19:13:52 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129ofbikiuh3114@corp.supernews.com>
Source record: 57244
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"gravity" <gravityzrainbow@yahoo.com> wrote in message
news:449c2766$0$79632$892e7fe2@authen.yellow.readfreenews.net...
> uh, if you are deserted on an island with a few buckets of electronics
junk,
> your best bet is CW.

Agreed

>
> if you a prisoner of war, CW could be invaluable in getting a message out.
> there are many other cases where CW can be used in channels that don't
> support audio.

Agreed, but I seriously doubt that I will ever be a POW.

> i am a superior creature because i know CW! ;-)

I am a superior creature because I know the NECA code, as CW will not pay
your bills.

4703. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 19:14:08 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129ofc1i3aafs20@corp.supernews.com>
Source record: 57247
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"gravity" <gravityzrainbow@yahoo.com> wrote in message
news:449c2dc3$0$84074$892e7fe2@authen.yellow.readfreenews.net...
(snipped)
> make QSOs! would you learn a language by using audio CDs, or would you
> talk
> to native speakers?
>
> Gravity

I learned Spanish with a combination of both.

4704. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 19:14:12 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129ofc5sa5ssl28@corp.supernews.com>
Source record: 57245
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
"Dee Flint" <deeflint01@comcast.net> wrote in message
news:k6Sdnby3hpHaWQbZnZ2dnUVZ_r6dnZ2d@comcast.com...
>
> "DrDeath" <drdeath555usb@yahoo.com> wrote in message
> news:129mlqhjcau6b44@corp.supernews.com...
>> "Steveo" <moparholic@hotmail.com> wrote in message
>> news:20060622212109.461$6g@newsreader.com...
>>> "DrDeath" <drdeath555usb@yahoo.com> wrote:
>>>>> With deaf people use can use a light or a subwoofer for them to copy
>>>> code.
>>>>
>>> Wonder why no-code ass hats like lee scott, eric oyen, doug adair, and
>>> mark
>>> morgan can't get it done? (they're not deaf, just brain dead hud
>>> dwelling
>>> sissy's)
>>>
>>> CW is for old people anyway aint it? :)
>>
>> LOL, I sure have no interest in CW. I must still be young :-P
>>
>
> The highest level of interest for learning the code is among the young.
>
> Dee Flint, N8UZE
>

Back when I was young and interested I lost my desire to learn code when I
started monitoring the ham bands. It all seemed too formal, and then like it
is now, you have a large segment that think you are trash if you don't have
the highest obtainable license. Even this thread proves it. You have a large
contingent hell bent on having CW testing with any class, even though I
never plan to use CW. I could get my Tech ticket, but then all I'm going to
hear is that I'm a no-code tech. I rather be a CBer as we have no cast
system.
```

4705. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 19:14:14 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129ofcbce6lv02d@corp.supernews.com>
Source record: 57246
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
"Steveo" <moparholic@hotmail.com> wrote in message
news:20060622232054.024$C4@newsreader.com...
> "DrDeath" <drdeath555usb@yahoo.com> wrote:
>> "Steveo" <moparholic@hotmail.com> wrote in message
>> news:20060622214335.020$uF@newsreader.com...
>> > "DrDeath" <drdeath555usb@yahoo.com> wrote:
>> > -snipper-
>> >> Mark chooses to sit on
>> >> his ass sucking the entitlement system dry and contributing nothing to
>> >> society, while this person decided to make the best of his what God
>> >> gave him and he contributes to the same entitlement system that Mark
>> >> chooses to deplete.
>> >>
>> > Testify! That asswipe is too dumb to come in out of the rain. He's best
>> > left ignored.
>>
>> I think most of the RRCB regulars have pretty much ignored him as of
>> late. It's his pathetic RRAP buddies that followed him here that keep him
>> fueled
>>
> Yea, I stated a thread about that titled ham operators...why must they
> ruin
> RRCB?
>
> Eric Oyen was the only ht ham to tell me how wrong I was. Oh well.
>
Like his opinion counts. Obviously the rest know the truth and don't deny
it.
```

4706. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 19:14:17 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129ofcclvejs22f@corp.supernews.com>
Source record: 57248
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"David" <rickets@knac.com> wrote in message
news:u9tn92tmv5angta69k852on9jq12brc412@4ax.com...
> On Thu, 22 Jun 2006 18:22:57 -0500, "DrDeath"
> <drdeath555usb@yahoo.com> wrote:
>
>>
>
>>> The purpose of business is to keep people busy.
>>>
>>No, It is to make money.
>>
>>
> Then it would be called moneyness.

Then I guess all those Fotrune 500 people have it wrong as they are in
buisness for making money. Even my boss hired me to make money, not to keep
me busy. Hell I can keep myself busy.

>
> Those gated communities won't protect you from the thundering hordes
> of hungry people.
>

Gated communities? I live in the sticks armed to the teeth. They can eat the
dead bodies I leave in the yard.

4707. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 19:54:40 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c4755$0$21501$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57249
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> I am a superior creature because I know the NECA code, as CW will not pay
> your bills.

i'm a professional contester! (it violates the rules, but we do it anyway.)

Gravity

4708. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 19:57:32 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c4801$0$16332$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57250
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

>It all seemed too formal, and then like it
> is now, you have a large segment that think you are trash if you don't
have
> the highest obtainable license.

i have Extra, MCSE, and BS in engineering.

i don't associate with those dipole and QRP types. ;-)

Gravity

4709. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 20:03:20 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c495d$0$16322$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57251
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

> I learned Spanish with a combination of both.

and when you want to get really good, you start making posts in the Spanish newsgroups. you might even drive to Mexico to test your knowledge.

same thing with CW (kinda).

Gravity

4710. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 20:25:45 UTC
From: David <rickets@knac.com>
Message-ID: <0bjo92p0h2dfqcum243lc3u1mqv49nu10h@4ax.com>
Source record: 57252
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

On Fri, 23 Jun 2006 14:14:17 -0500, "DrDeath"
<drdeath555usb@yahoo.com> wrote:

>"David" <rickets@knac.com> wrote in message
>news:u9tn92tmv5angta69k852on9jq12brc412@4ax.com...
>> On Thu, 22 Jun 2006 18:22:57 -0500, "DrDeath"
>> <drdeath555usb@yahoo.com> wrote:
>>
>>>
>>
>>>> The purpose of business is to keep people busy.
>>>>
>>>No, It is to make money.
>>>
>>>
>> Then it would be called moneyness.
>
>Then I guess all those Fotrune 500 people have it wrong as they are in
>buisness for making money. Even my boss hired me to make money, not to keep
>me busy. Hell I can keep myself busy.
>
>>
>> Those gated communities won't protect you from the thundering hordes
>> of hungry people.
>>
>
>Gated communities? I live in the sticks armed to the teeth. They can eat the
>dead bodies I leave in the yard.
>
>
You're a tough guy.

During a more civilised time a company went into business to provide
jobs and make profits and to be part of a community. Nowadays
corporations are extranational, have no local ties and just milk
markets dry and move on.

Corporations pay way less than half th cost of running governments,
even though they are the major beneficieries of what governments
provide. This is because we let them write their own rules.

4711. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 20:50:02 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <_tYmg.2350$Yk.1437@trnddc06>
Source record: 57253

Cecil Moore wrote:
> John - KD5YI wrote:
>
>> Well, suppose you have a #18 ga stranded wire composed of 7 strands of
>> #26. One strand is sticking up all by itself. The end of the strand
>> (if cut off squarely) is about 0.0013 cm^2. So a current flow of 0.13
>> uA from the end of this strand is 100 uA/cm^2.
>
>
> We can suppose all sorts of conditions to obtain corona.
> There's absolutely no argument about that. The argument
> is whether corona occurs 100% of the time on any and all
> antennas with charged particle static. If corona occurs
> only 99.9% of the time, the corona gang loses the argument.
>
> The argument is whether corona *always* accompanies charged
> particle noise. That's an exclusive assertion that there
> exists no cases where corona doesn't accompany charged
> particle noise.
>
> I fully agree that corona *often* accompanies charged particle
> noise but that's an inclusive assertion.
>
> If enough particles hit the antenna to just
> barely hear the noise on a receiver, the corona crowd says
> that corona caused the noise. I would like to see some proof
> for such a statement so far out of mainstream physics.
>
> Can we suppose a condition where corona won't happen?
> How about a #14 solid wire with rounded ends? Do you think
> it could build up enough charged particle noise to be heard
> in a receiver without the existence of corona?

I applied simple arithmetic to show that 100 uA/cm^2 is almost meaningless because there are conditions much more favorable to the generation of corona to consider. If I am wrong, please correct me.

Frankly, I think you should try to make up a condition that refutes your own suppositions and see if it flys. If it does, then think of something else. I do that all the time. Sometimes I learn, and sometimes I don't. I try to temper my investigations by asking questions.

Why #14 with rounded ends? Because it supports your position? Why not suppose smaller wire and sharper points? Make some calculations for us to review. Use the worst case against yourself, then show why it cannot be so.

Frankly, Cecil, I have been somewhat of a follower of yours for some time. You have some thought-provoking ideas and comments, but I am beginning to believe that your entire purpose is to argue. I wish it wasn't so.

John

4712. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 21:39:43 UTC
From: an old freind <kb9rqz___ars@hotmail.com>
Message-ID: <1151098783.711872.84350@r2g2000cwb.googlegroups.com>
Source record: 57254
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
gravity wrote:
> > How many times, say during Katrina did this occour
>
> uh, if you are deserted on an island with a few buckets of electronics junk,
> your best bet is CW.
and I can send sos with spark gap off a batery without knowing anymore
than that
>
> if you a prisoner of war, CW could be invaluable in getting a message out.
> there are many other cases where CW can be used in channels that don't
> support audio.
>
> i am a superior creature because i know CW! ;-)
bullshit
>
> Gravity
```

4713. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 21:45:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <4iZmg.104124$H71.96124@newssvr13.news.prodigy.com>
Source record: 57255

gravity wrote:
> i did some googling, and certainly there are others with Cecil's position.

On most topics, I am mainstream conventional engineering
and physics - discovered over the past century or so. It
is the wannabe gurus who need to discover something
original so badly that they are willing to go against
the accepted laws of physics.
--
73, Cecil http://www.qsl.net/w5dxp

4714. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 21:53:19 UTC
From: james <george@washington.edu>
Message-ID: <d9oo92h9tnp4qahaku5crldmd8rce5ka5d@4ax.com>
Source record: 57256
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

On Fri, 23 Jun 2006 10:21:08 -0500, "Noon-Air" <Noon-Air@comcast.net>
wrote:

>+++"hungry" and "homeless" people are there by their own choice or by choices
>+++they have made in their past. The welfare system doesn't work, otherwise
>+++there wouldn't be 5 1/2 MILLION people dependant on it.
>+++
****

First not every homeless and hungry person is there by their own
choice. There are those that the system chrushes and grinds into
pieces just for beign at the wrong place at the wrong time. The
welfare system does work. Yes decision and actions in all our past
make differences. Yes some want to live the way they do. Somewhat out
on the fringe of society.

>+++Yes..... I have a problem with the system when 28% of my *net* profits get
>+++paid to the feds to support lazy dead beats, and another 4% goes to the
>+++state for the same.
****

What you pay is part of doing business. I bet you pass most if not all
off when and where ever you can.

james

4715. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 22:07:26 UTC
From: james <george@washington.edu>
Message-ID: <uooo92t7779545q2clumi71imt209k9rfi@4ax.com>
Source record: 57257
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

On Fri, 23 Jun 2006 16:57:12 GMT, David <rickets@knac.com> wrote:

>+++(Reagan's Welfare Queen was a myth, you know.)
>+++
>+++When a company moves offshore they do not reduce prices to the end
>+++users. They increase their profits. Most big companies don't even
>+++pay income taxes because they are legally running out of a drawer in
>+++some Carribean island.
>+++
>+++ Eventually the middle class will be gone due to outsourcing. That
>+++will be the end of the USA.
****

Corporations do pay taxes. The expense of taxes is often passed on
where feasable. Often these are in higher selling prices. Often taxes
do intrude on profits. When they do, there are steps taken to regain
that profit. Outsourcing is a means of regaining profit. Cutting
benefits and maintaining salaries is another. There are other means
also.

james

4716. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 22:08:33 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <BDZmg.104277$H71.94289@newssvr13.news.prodigy.com>
Source record: 57258

w8ji@akorn.net wrote:
> Rather than rationalize and walk through disagreements step-by-step
> Cecil prefers to distort and bully.

From Websters:
"rationalize - 1. to ascribe (one's acts, opinions, etc.)
to causes that superficially seem reasonable and valid but
that actually are unrelated to the true, possibly unconscious
and often less creditable or agreeable causes."

I agree that describes exactly what you do here on this
newsgroup but why do you think rationalizing is a good thing?
--
73, Cecil http://www.qsl.net/w5dxp

4717. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 22:09:23 UTC
From: james <george@washington.edu>
Message-ID: <8jpo92daeum9c6me62k426uq0nhd76ves8@4ax.com>
Source record: 57259
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

On Fri, 23 Jun 2006 20:25:45 GMT, David <rickets@knac.com> wrote:

>+++On Fri, 23 Jun 2006 14:14:17 -0500, "DrDeath"
>+++<drdeath555usb@yahoo.com> wrote:
>+++
>+++>"David" <rickets@knac.com> wrote in message
>+++>news:u9tn92tmv5angta69k852on9jq12brc412@4ax.com...
>+++>> On Thu, 22 Jun 2006 18:22:57 -0500, "DrDeath"
>+++>> <drdeath555usb@yahoo.com> wrote:
>+++>>
>+++>>>
>+++>>
>+++>>>> The purpose of business is to keep people busy.
>+++>>>>
>+++>>>No, It is to make money.
>+++>>>
>+++>>>
>+++>> Then it would be called moneyness.
>+++>
>+++>Then I guess all those Fotrune 500 people have it wrong as they are in
>+++>buisness for making money. Even my boss hired me to make money, not to keep
>+++>me busy. Hell I can keep myself busy.
>+++>
>+++>>
>+++>> Those gated communities won't protect you from the thundering hordes
>+++>> of hungry people.
>+++>>
>+++>
>+++>Gated communities? I live in the sticks armed to the teeth. They can eat the
>+++>dead bodies I leave in the yard.
>+++>
>+++>
>+++You're a tough guy.
>+++
>+++During a more civilised time a company went into business to provide
>+++jobs and make profits and to be part of a community. Nowadays
>+++corporations are extranational, have no local ties and just milk
>+++markets dry and move on.
>+++
>+++Corporations pay way less than half th cost of running governments,
>+++even though they are the major beneficieries of what governments
>+++provide. This is because we let them write their own rules.
*****

That is very correct. Workers are but now a resource and not an asset.

james

4718. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 22:10:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hFZmg.104289$H71.16937@newssvr13.news.prodigy.com>
Source record: 57260
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

gravity wrote:
> and when you want to get really good, you start making posts in the Spanish
> newsgroups. you might even drive to Mexico to test your knowledge.
>
> same thing with CW (kinda).

Where is the CW newsgroup? ....
--
73, Cecil http://www.qsl.net/w5dxp

4719. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 22:13:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <IlZmg.104309$H71.44092@newssvr13.news.prodigy.com>
Source record: 57261
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

David wrote:
> Corporations pay way less than half the cost of running governments,

Corporations don't pay any of the cost of running
governments - their customers pay it all.
--
73, Cecil http://www.qsl.net/w5dxp

4720. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 22:34:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <j0_mg.104417$H71.37185@newssvr13.news.prodigy.com>
Source record: 57262

John - KD5YI wrote:
> Frankly, I think you should try to make up a condition that refutes your
> own suppositions and see if it flys.

My supposition is that it is possible for charged particle noise
to exist without corona. That inclusive supposition cannot be
refuted by one condition. That supposition can only be refuted
by all conditions which is not possible to implement in reality.

My type of supposition: Not all cars are white.

This cannot be disproved by only one example.

The other sides supposition is that charged particle noise is
always accompanied by corona. All it takes is one example to
refute that exclusive assertion.

Their type of supposition: All cars are white.

This can be disproved by only one example.

> Why #14 with rounded ends? Because it supports your position? Why not
> suppose smaller wire and sharper points?

Seems you misunderstand. I'm not saying corona never occurs.
I'm saying it is possible for charged particle
noise to exist without corona occurring. Do you understand the
difference between an exclusive statement and an inclusive
statement? It's the other side making the exclusive assertions.
All I have to do is present one example where charged particle
noise exists without corona. That case may be a #14 wire with
rounded ends.

I have made no exclusive statements. If there is corona in
99.9% of the cases, the other side still loses the argument.
It is the opposition that has made the exclusive statement
that charged particle noise is *always* accompanied by corona.

My supposition is that charged particle noise is NOT always
accompanied by corona.
--
73, Cecil http://www.qsl.net/w5dxp

4721. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 23:15:20 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c765f$0$16281$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57263
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> and I can send sos with spark gap off a batery without knowing anymore
> than that

your engineering skill is formidable.

Gravity

4722. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 23:17:49 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c76f4$0$14505$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57264

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:BDZmg.104277$H71.94289@newssvr13.news.prodigy.com...
> w8ji@akorn.net wrote:
> > Rather than rationalize and walk through disagreements step-by-step
> > Cecil prefers to distort and bully.
>
> From Websters:
> "rationalize - 1. to ascribe (one's acts, opinions, etc.)
> to causes that superficially seem reasonable and valid but
> that actually are unrelated to the true, possibly unconscious
> and often less creditable or agreeable causes."
>
> I agree that describes exactly what you do here on this
> newsgroup but why do you think rationalizing is a good thing?

agreed. W8JI means being rational.

Gravity

4723. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 23:25:52 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c78d7$0$16391$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57265

> My type of supposition: Not all cars are white.
>
> This cannot be disproved by only one example.

i think this is modal logic. "all cars are white" is a statement about the whole set. thus the whiteness of each element must be verified.

we get into semantics. what is "white". what is "car".

sometimes the situation gets complex. we can prove that 100% of the zeroes fall up on the critical line, but this does not rule out a counterexample. i guess my main point is we need to define "clear weather charged particle noise".

Gravity

4724. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 23:27:54 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c7950$0$16322$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57266
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:lIZmg.104309$H71.44092@newssvr13.news.prodigy.com...
> David wrote:
> > Corporations pay way less than half the cost of running governments,

corporations pay more than half the legislator's hooker bills. ;-)

Gravity

4725. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-23 23:42:56 UTC
From: an old freind <kb9rqz___ars@hotmail.com>
Message-ID: <1151106176.529709.220710@m73g2000cwd.googlegroups.com>
Source record: 57267
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

gravity wrote:
> > and I can send sos with spark gap off a batery without knowing anymore
> > than that
>
> your engineering skill is formidable.
possibly it is certainly more valueble the the mereknowledge of Morse
code is without the level of engineering skill I have

BTW I note myone of my double majors was Physics and a phisists can
general anything the various engineers can we just take a lot longer to
do it (and make more mistakes than tsomeone trains to think inside the
box of a given engineering type
>
> Gravity

4726. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 00:29:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <HH%mg.28379$VE1.3169@newssvr14.news.prodigy.com>
Source record: 57268
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

gravity wrote:
>> and I can send sos with spark gap off a batery without knowing anymore
>> than that
>
> your engineering skill is formidable.

I don't know much about spark. Was the length of the spark
controllable such that dots and dashes could be differentiated?
--
73, Cecil http://www.qsl.net/w5dxp

4727. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 00:36:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <rO%mg.28380$VE1.5622@newssvr14.news.prodigy.com>
Source record: 57269

gravity wrote:
> i guess my main point is we need to define "clear weather charged particle
> noise".

It's what happens when the wind blows in the Arizona
desert when the humidity is low and there's not a
cloud in the state. There are hundreds of reports
on the web of such a phenomenon. Example:

http://www.eham.net/forums/Elmers/83174
--
73, Cecil http://www.qsl.net/w5dxp

4728. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 00:46:01 UTC
From: John Barnard <jfjb@shaw.ca>
Message-ID: <dX%mg.79692$iF6.12453@pd7tw2no>
Source record: 57270
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Cecil Moore wrote:
> David wrote:
>> Corporations pay way less than half the cost of running governments,
>
> Corporations don't pay any of the cost of running
> governments - their customers pay it all.
You are right! Corporations don't pay the cost of running governments.
They pay the cost of usurping governments!

JB

4729. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 00:59:33 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c8ecd$0$15844$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57271
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:HH%mg.28379$VE1.3169@newssvr14.news.prodigy.com...
> gravity wrote:
> >> and I can send sos with spark gap off a batery without knowing anymore
> >> than that
> >>
> > your engineering skill is formidable.
>
> I don't know much about spark. Was the length of the spark
> controllable such that dots and dashes could be differentiated?

click short pause clack = dit
click long pause clack = dah

i think it would be hard to decode vs listening to a modern receiver.

i believe spark gap would be useless in a rescue situation.

Gravity

4730. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 01:04:53 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449c900d$0$79858$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57272

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:rO%mg.28380$VE1.5622@newssvr14.news.prodigy.com...
> gravity wrote:
> > i guess my main point is we need to define "clear weather charged
particle
> > noise".
>
> It's what happens when the wind blows in the Arizona
> desert when the humidity is low and there's not a
> cloud in the state. There are hundreds of reports
> on the web of such a phenomenon. Example:

i researched ULF antennas and came up with this:

1. triboelectric noise due to movement
2. static on long wires due to lightning

on microwave, you'll get tropospheric scintillation noise.

you are talking HF, so i dunno much.

Gravity

4731. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 01:34:41 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <129p6at1dnfc450@corp.supernews.com>
Source record: 57274
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"gravity" <gravityzrainbow@yahoo.com> wrote in message
news:449c495d$0$16322$892e7fe2@authen.yellow.readfreenews.net...
>> I learned Spanish with a combination of both.
>
> and when you want to get really good, you start making posts in the
> Spanish
> newsgroups. you might even drive to Mexico to test your knowledge.
>
> same thing with CW (kinda).
>
> Gravity
>
>
LOL! I went to Mexico last summer.

4732. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 01:45:01 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <ufhum3-7l6.ln1@mail.specsol.com>
Source record: 57273

Cecil Moore <mycall@hotmail.com> wrote:
> gravity wrote:
> > i guess my main point is we need to define "clear weather charged particle
> > noise".

> It's what happens when the wind blows in the Arizona
> desert when the humidity is low and there's not a
> cloud in the state. There are hundreds of reports
> on the web of such a phenomenon. Example:

> http://www.eham.net/forums/Elmers/83174
> --
> 73, Cecil http://www.qsl.net/w5dxp

And it happens in inland Southern California with Santa Ana winds.

--
Jim Pennino

Remove .spam.sux to reply.

4733. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 01:53:00 UTC
From: w8ji@akorn.net
Message-ID: <1151113980.126253.96170@y41g2000cwy.googlegroups.com>
Source record: 57275

I said:
w...@akorn.net wrote:
> The "dc path eliminates noise" and the "noise comes from each particle
> hitting the antenna and a dc path reduces it" are nearly as far
> fetched.

I already explained that to you, Tom. Perhaps you missed it.
In the following diagrams, CH is the charge transferred to
the antenna by a charged particle or any other means.

Given a non-folded dipole, any equalizing of the charge between
the two identical dipole elements must flow through the link
where the noise is picked up by the receiver.

```
-------CH------+ +---------------
| |
/ /
| |
Link to
receiver
```

Turning the non-folded dipole into a folded dipole provides
a *local DC path* between the two elements. Most of the
noise will follow that DC path between elements instead of
traveling down the transmission line, through the link, and
back up the transmission line. Hint: Ohm's law.

```
DC path between elements
+------------------------------+
+-------CH-----+ +--------------+
| |
/ /
| |
Link to
Receiver
```

You avoided replying to this last time. One wonders why.
Please explain why you think the charge on the folded dipole
would not take the DC path of least resistance.
--
73, Cecil http://www.qsl.net/w5dxp

>>>>end of quoted text.

The above nonsense is what gets Cecil in trouble.

1.) First he clearly stated he thought the noise was from each individual charged particle of dust striking the antenna millions of times a secon making a noise at radio frequencies.

2.) Then he wrongly assumed "shorting the antenna for dc" would also "short the noise". '

He apparently missed the fact HE (Cecil) claimed the noise was radio frequency noise caused by each particle hitting the antenna. If it was such, shorting the antenna for dc would only make the noise worse.

Now it seems he is changing his tune, saying it is arcing in the coax that is a concern.

Cecil paints himself into a corner with silly statements. Then he tries to cover it up by saying he never actually said what he said.

But at least now we are in agreement. The noise is caused either by arcs or corona, not by particle discharges into the antenna as they connect.
That's all that is really important.

73 Tom

4734. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 02:00:58 UTC
From: w8ji@akorn.net
Message-ID: <1151114458.462887.105550@c74g2000cwc.googlegroups.com>
Source record: 57176

jimp@specsol.spam.sux.com wrote:
> Cecil Moore <mycall@hotmail.com> wrote:
> > gravity wrote:
> > > i guess my main point is we need to define "clear weather charged particle
> > > noise".
>
> > It's what happens when the wind blows in the Arizona
> > desert when the humidity is low and there's not a
> > cloud in the state. There are hundreds of reports
> > on the web of such a phenomenon. Example:
>
> > http://www.eham.net/forums/Elmers/83174
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
>
> And it happens in inland Southern California with Santa Ana winds.
>
> --
> Jim Pennino

....and it happens here in humid Georgia, and in dry Georgia, and in
Ohio in summer and winter. There doesn't need to be a particle in
sight.

I can go outside and float the feeder of my long 160M dipole that is
300 feet high. The whack will knock you right on your rump. But that
charge is actually pulling the antenna CLOSER to the potential of the
air around the antenna. When I ground that antenna so the antenna moves
to earth potential, the corna from that antenna actually gets
worse....not better.

The reason is pretty simple. The earth is a big charge sink, and is
really at considerably different potential than the air at 300 feet
even on a clear calm day. A little wind helps quite a bit, pushing
charged air past the antenna and increasing the charge rate.

What most people miss is that it is the difference in potential between
earth (or lower heights) and the air around the antenna that causes the
leakage currents. The wind simply increases the problem.

73 Tom

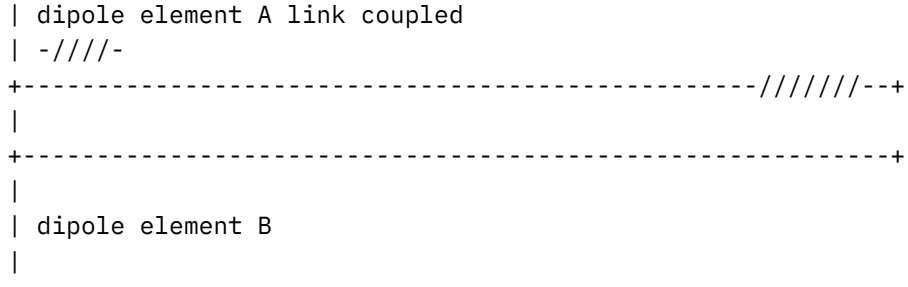
4735. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 02:11:09 UTC
From: w8ji@akorn.net
Message-ID: <1151115068.941055.148760@c74g2000cwc.googlegroups.com>
Source record: 57177

Here is where Cecil claimed the noise was from individual particles
hitting the antenna:

From: Cecil Moore - view profile
Date: Sun, Jun 11 2006 11:59 am
Email: Cecil Moore <myc...@hotmail.com>
Groups: rec.radio.amateur.antenna
w...@akorn.net wrote:
> People actually seem to think the little particles voving through the
> air charge the antenna to a different potential than the air around the
> antenna, and that a "dc" path to earth or "dc" path around an element
> somehow magically stops RF noise.

Let's say we have the following bare-wire dipole system
link coupled to the receiver (in fixed font).



Let's assume one highly charged particle hits dipole element
A and transfers half of its charge. Element A will then have
an excess charge one half of which will migrate through the
link while equalizing the charge between element A and element
B. That charge migration/equalization no doubt results in an
RF noise pulse.

This experiment can easily be performed by anyone.
Rub one's leather soles on a wool carpet, touch one side of
the dipole, and listen for noise in the receiver. Guaranteed,
it will be there.

Now multiply the above by millions of charged particles
randomly encountering the bare-wire dipole. The charge on
each side of the dipole will never be exactly equal. Thus,
continuous broad-band noise will be continuously transferred
through the link as long as the particles are transferring
charge to the antenna. That's what some hams are hearing
during dry-air dust and snow conditions. Some have even reported
being able to hear individual particle collisions from large

snowflakes.
--
73, Cecil http://www.qsl.net/w5dxp

>>

Cecil claimed P-static was broadband noise from each particle hitting the antenna. Notice, unlike Cecil, I don't lift things from context to change the meaning. His full unedited statement is above, and it shows what he intended to say.

He made several clear posts like that, but at least now he seems to be coming around and understanding it is arcing and corona noise.

73 Tom

4736. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 02:26:12 UTC
From: james <george@washington.edu>
Message-ID: <ol8p92dre195s6161a9m3jfl616483djam@4ax.com>
Source record: 57178
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

On Fri, 23 Jun 2006 18:27:54 -0500, "gravity"
<gravityzrainbow@yahoo.com> wrote:

>+++
>+++"Cecil Moore" <mycall@hotmail.com> wrote in message
>+++news:lIZmg.104309$H71.44092@newssvr13.news.prodigy.com...
>+++> David wrote:
>+++> > Corporations pay way less than half the cost of running governments,
>+++
>+++corporations pay more than half the legislator's hooker bills. ;-)
>+++
>+++Gravity
>+++
****

And don't forget the bar tab and vacations

james

4737. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 02:43:51 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449ca73f$0$16401$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57179

<jimp@specsol.spam.sux.com> wrote in message
news:ufhum3-7l6.ln1@mail.specsol.com...
> Cecil Moore <mycall@hotmail.com> wrote:
> > gravity wrote:
> > > i guess my main point is we need to define "clear weather charged
particle
> > > noise".
>
> > It's what happens when the wind blows in the Arizona
> > desert when the humidity is low and there's not a
> > cloud in the state. There are hundreds of reports
> > on the web of such a phenomenon. Example:
>
> > http://www.eham.net/forums/Elmers/83174
> > --
> > 73, Cecil http://www.qsl.net/w5dxp
>
> And it happens in inland Southern California with Santa Ana winds.

lab experiment: leaf blower.

Gravity

>
> --
> Jim Pennino
>
> Remove .spam.sux to reply.

4738. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 03:01:26 UTC
From: an old freind <kb9rqz___ars@hotmail.com>
Message-ID: <1151118086.815191.47700@i40g2000cwc.googlegroups.com>
Source record: 57180
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

gravity wrote:
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:HH%mg.28379$VE1.3169@newssvr14.news.prodigy.com...
> > gravity wrote:
> > >> and I can send sos with spark gap off a batery without knowing anymore
> > >> than that
> > > >
> > > > your engineering skill is formidable.
> > >
> > > I don't know much about spark. Was the length of the spark
> > > controllable such that dots and dashes could be differentiated?
> >
> > click short pause clack = dit
> > click long pause clack = dah
> >
> > i think it would be hard to decode vs listening to a modern receiver.
if all the was being sent was sos then it it should e hard and RDF
should pin it down soon enough

certainly more than geting to atrue CW rig up and running on some
desert Ilse
>
> i believe spark gap would be useless in a rescue situation.
becuase yo want to belive it usless mostly I suspect
>
> Gravity

4739. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 03:04:08 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449cac00$0$51839$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57181

<w8ji@akorn.net> wrote in message
news:1151115068.941055.148760@c74g2000cwc.googlegroups.com...
> Here is where Cecil claimed the noise was from individual particles
> hitting the antenna:

particle rubs against aluminum antenna and creates triboelectric charge.

a different particle transfers charge to the conductor.

wind movement causes triboelectric noise.

i'm not sure if all 3 of these are the same thing.

Gravity

4740. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 03:05:32 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449cac54$0$79787$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57182
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
"james" <george@washington.edu> wrote in message
news:ol8p92dre195s6161a9m3jfl616483djam@4ax.com...
> On Fri, 23 Jun 2006 18:27:54 -0500, "gravity"
> <gravityzrainbow@yahoo.com> wrote:
>
> >+++
> >+++"Cecil Moore" <mycall@hotmail.com> wrote in message
> >+++news:lIZmg.104309$H71.44092@newssvr13.news.prodigy.com...
> >+++> David wrote:
> >+++> > Corporations pay way less than half the cost of running
governments,
> >+++
> >+++corporations pay more than half the legislator's hooker bills. ;-)
> >+++
> >+++Gravity
> >+++
> *********
>
> And don't forget the bar tab and vacations

i shoulda majored in political science. :-/

Gravity
```

4741. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 03:15:02 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <0smum3-l6l.ln1@mail.specsol.com>
Source record: 57183

w8ji@akorn.net wrote:

> jimp@specsol.spam.sux.com wrote:
> > Cecil Moore <mycall@hotmail.com> wrote:
> > > gravity wrote:
> > > > i guess my main point is we need to define "clear weather charged particle
> > > > noise".
> > >
> > > > It's what happens when the wind blows in the Arizona
> > > > desert when the humidity is low and there's not a
> > > > cloud in the state. There are hundreds of reports
> > > > on the web of such a phenomenon. Example:
> > >
> > > > http://www.eham.net/forums/Elmers/83174
> > > > --
> > > > 73, Cecil http://www.qsl.net/w5dxp
> > >
> > And it happens in inland Southern California with Santa Ana winds.
> >
> > --
> > Jim Pennino

> ....and it happens here in humid Georgia, and in dry Georgia, and in
> Ohio in summer and winter. There doesn't need to be a particle in
> sight.

> I can go outside and float the feeder of my long 160M dipole that is
> 300 feet high. The whack will knock you right on your rump. But that
> charge is actually pulling the antenna CLOSER to the potential of the
> air around the antenna. When I ground that antenna so the antenna moves
> to earth potential, the corna from that antenna actually gets
> worse....not better.

> The reason is pretty simple. The earth is a big charge sink, and is
> really at considerably different potential than the air at 300 feet
> even on a clear calm day. A little wind helps quite a bit, pushing
> charged air past the antenna and increasing the charge rate.

> What most people miss is that it is the difference in potential between
> earth (or lower heights) and the air around the antenna that causes the
> leakage currents. The wind simply increases the problem.

> 73 Tom

Umm, no, two different things.

If it were charge building somewhere and discharging it wouldn't have the characteristics it does, which is random, continuous, of extremely short duration, and at a very high rate.

When it gets bad, it is quite visible as very random "snow" on TV channels 2 through 4 on an otherwise perfect picture.

The snow is spots of extremely short duration.

Arcing (my neighbor has an arc welder so I have something to compare it to) shows up as lines. When watching TV while he is welding it is very obvious from the visual "noise" when he trying to start an arc on some rusty thing versus an established arc from the length of the visual "noise".

This particular effect ONLY happens during low humidity on very windy days.

The intensity of the snow changes very little with wind speed, the duration not at all, but the rate changes drastically.

I took all the electromagnetic courses to get my BSEE and I'm a pilot, so yes, I know about corona.

--
Jim Pennino

Remove .spam.sux to reply.

4742. Re: antenna papers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 03:22:11 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449cb03b$0$16300$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57184

"Dave" <W1MCE@comcast.net> wrote in message
news:LsKdnTyFfbdsYAfZnZ2dnUVZ_oCdnZ2d@comcast.com...
> gravity wrote:
>
> > any good antenna theory sites? i have taken emag and difeqs, but i need
> > something that it is easy on the brane.
> >
> > should i get the Kraus book?
> >
> > TIA,
> >
> > Gravity
> >
> >
>
> ANTENNAS, J. Kraus, McGraw-Hill 1950, is a great reference. If you passed
'emag
> and difeqs' in college you should be comfortable with Kraus.
>
> Now, I have a question: "If you passed 'emag and difeqs' why do you worry
about
> 'easy on the brane[sic]' ? You have adequate 'brane' power.
>

there's no reason to have so many quotation marks. using terms like
"engineering electromagnetics" and "ordinary differential equations" reeks
of pretension, imo.

Gravity

4743. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 03:25:53 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <5h2ng.50439$fb2.15052@newssvr27.news.prodigy.net>
Source record: 57185

w8ji@akorn.net wrote:

I'm going to respond to this posting in two parts.

> 1.) First he clearly stated he thought the noise was from each
> individual charged particle of dust striking the antenna millions of
> times a secon making a noise at radio frequencies.

Obviously, I didn't say each particle strikes the antenna
millions of times a second. What I said was that although
others had reported being able to hear each individual
collision, I had never been able to do that. So your statement
is false.

> 2.) Then he wrongly assumed "shorting the antenna for dc" would also
> "short the noise". '

You are mixing apples and oranges. This was in the context of
eliminating the arcing of my coax connector laying on the rug.
Sure enough, shorting the antenna for DC eliminated the arcing
thus eliminating the noise. Your statement is deliberately
misleading.

For the record, when the wind was blowing charged dust particles
across my bare wire antenna under a clear sky, the S-meter noise
increased as the wind speed increased and decreased as the wind
speed decreased.

> He apparently missed the fact HE (Cecil) claimed the noise was radio
> frequency noise caused by each particle hitting the antenna. If it was
> such, shorting the antenna for dc would only make the noise worse.

No, I didn't say that. I specifically said that it was NOT me
who said they could correlate noise to each specific particle.
Is the only way you can win the argument is to falsify what I
have said?

> Now it seems he is changing his tune, saying it is arcing in the coax
> that is a concern.

No, you are the one who is mixing up the two different subjects.
One was an arcing problem that I needed to solve. The other is
the measures that can be taken to make an antenna less noisy.
Please stop the deliberate mixing of these two subjects. I am
willing to rationally discuss either one separately.

> Cecil paints himself into a corner with silly statements. Then he tries
> to cover it up by saying he never actually said what he said.

As you are doing, I could cut and paste your postings to make you
seem ignorant and insane. But only an unethical person does that.

> But at least now we are in agreement. The noise is caused either by
> arcs or corona, not by particle discharges into the antenna as they
> connect.

No we are NOT in agreement. In the absence of arcing or corona,
charged particle noise exists and has been experienced by many
people. A web search for "precipitation static" will yield any
number of references, including amateur radio references.
--
73, Cecil http://www.qsl.net/w5dxp

4744. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 03:32:07 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Xm2ng.50441$fb2.41296@newssvr27.news.prodigy.net>
Source record: 57186

w8ji@akorn.net wrote:
> jimp@specsol.spam.sux.com wrote:
>> Cecil Moore <mycall@hotmail.com> wrote:
>>> gravity wrote:
>>>> i guess my main point is we need to define "clear weather charged particle
>>>> noise".
>>> It's what happens when the wind blows in the Arizona
>>> desert when the humidity is low and there's not a
>>> cloud in the state. There are hundreds of reports
>>> on the web of such a phenomenon. Example:
>>> http://www.eham.net/forums/Elmers/83174
>>> --
>> And it happens in inland Southern California with Santa Ana winds.
>>
> ....and it happens here in humid Georgia, and in dry Georgia, and in
> Ohio in summer and winter. There doesn't need to be a particle in
> sight.

We are talking about antennas that have virtually no charge when
the wind is not blowing and acquire charge when the wind blows
charged particles across the antenna.

It is something that you have apparently never seen are are
therefore completely ignorant of.
--
73, Cecil http://www.qsl.net/w5dxp

4745. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 04:06:40 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kT2ng.50449$fb2.1448@newssvr27.news.prodigy.net>
Source record: 57187

w8ji@akorn.net wrote:
> Here is where Cecil claimed the noise was from individual particles
> hitting the antenna:

Sorry, Tom, you are mistaken. Read it again. It is true that
each individual particle that touches the antenna transfers
some charge but the following was *purely hypothetical*. I have
NEVER said I could hear the noise from an individual particle.
"Let's assume" is what one utters just before a hypothetical
exercise in logic. It is obviously hypothetical because exactly
1/2 of the charge is assumed to be transferred.

> W5DXP said:
>> Let's assume one highly charged particle hits dipole element
>> A and transfers half of its charge.

This is a hypothetical experimental charged particle as one
would get by rubbing amber on wool and touching it to the
antenna.

w8ji@akorn.net wrote:
> Cecil claimed P-static was broadband noise from each particle hitting
> the antenna.

That's a false statement. When I said *assume* one highly charged
particle, it was a purely hypothetical particle. CP-static is
a cumulative effect. I personally have never heard one particle
hitting an antenna although others have reported that they have
heard it. I have never said that one particle hitting the antenna
could be heard in the receiver.

> Notice, unlike Cecil, I don't lift things from context to
> change the meaning. His full unedited statement is above, and it shows
> what he intended to say.

You are attempting to change the meaning at the present, Tom.
That was a hypothetical highly charged particle, Tom, not one
that is likely to exist in the real world. I have previously
said that I could NOT hear the individual particles. My hypothetical
highly charged particle was like a piece of amber that had been
rubbed against wool and then touched to the antenna. I suspect
that one could hear that event in the receiver.

> He made several clear posts like that, but at least now he seems to be
> coming around and understanding it is arcing and corona noise.

Please stop the mind fornication. Such is highly unethical
but unfortunately standard practice for you for years now.

Sometimes noise is caused by arcing. Sometimes noise is caused
by corona. Sometimes noise is caused by charged particles in
the absence of arcing and corona. I am NOT coming around and
I do NOT seem to be coming around. Please stop misrepresenting
what I have said. It doesn't make you look any less ignorant
and it confuses the readers.

If you want to proceed with a rational argument, I can explain
and defend everything I have said and I am NOT coming around
to your strange concepts.
--
73, Cecil http://www.qsl.net/w5dxp

4746. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 04:10:25 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <RW2ng.50451$fb2.25797@newssvr27.news.prodigy.net>
Source record: 57188

jimp@specsol.spam.sux.com wrote:
> When it gets bad, it is quite visible as very random "snow" on TV
> channels 2 through 4 on an otherwise perfect picture.
>
> The snow is spots of extremely short duration.

So one can see the individual charged particles even if
one cannot hear the individual charged particles. That
makes a lot of sense. I wish I had thought to hook my
antenna up to my TV while the charged particle problem
was occurring.
--
73, Cecil http://www.qsl.net/w5dxp

4747. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 04:47:44 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <Qt3ng.484$RD.249@fed1read08>
Source record: 57189
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Dee Flint" <deeflint01@comcast.net> wrote in message
news:09adneMXu5xgVQbZnZ2dnUVZ_omdnZ2d@comcast.com...

> >
>
> Typing and reading are visually based. So it makes sense that those are a
> problem. But do you have difficulty saying words or hearing them? Just
> because the typing is a problem, doesn't mean that the aural/spoken is a
> problem. Reading/writing is a different activity than hearing/speaking
and
> uses different parts of the brain. While I can't imagine a graphical
method
> working for a dyslexic since it's visual, who can say for sure.
>
> By the way, I still have problems with longer characters now and then or
> combinations of certain characters. I had an awful time trying to copy a
> call sign in a contest that began with SH5 (3 dots, 4 dots, 5 dots).
>

I have problems with most characters of four or more elements length.
Exceptions are <period> and <Q>, for some reason. As I have said here,
after hearing dit-dah-dah-dit identified, whatever it is, I cannot
subsequently hear it and know what it is. I think my own first name
initial, <J> is some combination of three-and-one or one-and-three, but I
can't remember it. Oh yeah -- I know <V> because the dit-dit-dit-dah sounds
like the 1812 overture.

I dial a telephone with two fingers -- one pushing the buttons and one
holding my place in the phone book, since I have to go back and look at the
number repeatedly. Yes, I do memorize phone numbers, but I may invert the
digits when I try to dial them. This is a royal pain in the ass.

When I joined the Navy in 1962, one of our tests was for clerical skill,
which involved inspecting columns of numbers and calling the entries on each
line either ALIKE or DIFFERENT. I scored a 35, lower than anybody I ever
met. I wanted to be a Yeoman (clerical duties). Instead, they sent me to
ET school and I've never looked back.

I'll read any responses, but I think I'm pretty well talked out on this one.

4748. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 05:22:17 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449ccc63$0$16418$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57190
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

> When I joined the Navy in 1962, one of our tests was for clerical skill,
> which involved inspecting columns of numbers and calling the entries on
each
> line either ALIKE or DIFFERENT. I scored a 35, lower than anybody I ever
> met.

character transposition. some people are bad at it.

i suspect there is a genetic predisposition.

Gravity

4749. Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 06:26:49 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <JW4ng.475417$xt.144448@fe3.news.blueyonder.co.uk>
Source record: 57191

My homebrew 3 foot dia Magloop works very well vertically mounted 3 foot off the ground but i`m wondering if maybe it could do a little better in the low angle radiation department ....i seem to hear stations within 1000miles consistently strongest.....VKs and stateside etc much lower !!!.....

The loop is mounted on a rotator above a groundmat buried about 6 inches beneath the lawn and consists of 30 radials each about 30 foot long and the loop is mounted in the centre, is that ok, or should i work the loop higher than 3 feet above the mat, or remove the ground mat and work just with medium loam soil underneath instead??........

Thanks to Cecil and others for help and advice in building the loop, it tunes 40 thro` 15 meters......

Lee......G6ZSG.....

4750. Re: Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 10:13:42 UTC
From: w8ji@akorn.net
Message-ID: <1151144022.537224.263570@g10g2000cwb.googlegroups.com>
Source record: 57192

Lee wrote:
> My homebrew 3 foot dia Magloop works very well vertically mounted 3 foot off
> the ground but i`m wondering if maybe it could do a little better in the low
> angle radiation department ....i seem to hear stations within 1000miles
> consistently strongest.....VKs and stateside etc much lower !!!.....
>
> The loop is mounted on a rotator above a groundmat buried about 6 inches
> beneath the lawn and consists of 30 radials each about 30 foot long and the
> loop is mounted in the centre, is that ok, or should i work the loop higher
> than 3 feet above the mat, or remove the ground mat and work just with
> medium loam soil underneath instead??........

With a low height "vertically polarized" loop the ground would never
hurt the antenna and always help it to some extent. The only exception
might be if the soil is so very poor it looks nearly invisible, or so
good it looks perfect.

I would not remove the ground mat, although 6 inches is pretty deep!

A small loop is a very inefficient radiator unless you do everything
perfectly, and if perfectly done it has mediocre efficiency.

So how did you build the loop?

4751. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 10:19:46 UTC
From: w8ji@akorn.net
Message-ID: <1151144386.053832.309480@c74g2000cwc.googlegroups.com>
Source record: 57193

Cecil Moore wrote:

>
> As you are doing, I could cut and paste your postings to make you
> seem ignorant and insane. But only an unethical person does that.

Then you are also unethical, because if you look back that is EXACTLY
what you do to others.

That is why Roy and others have you in a "Cecil filter".

73 Tom

4752. Re: Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 11:07:46 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <7K6dnUXV_N89gADZRVnyhA@bt.com>
Source record: 57194

Lee,
Signals within 1000 miles come through strongest because they are nearer to you.

Also, with an antenna height of only 3 feet, low-angle reception and radiation suffers from being screened by buildings and other obstructions in the vicinity of the antenna.

At low heights there is a considerable power loss induced in the soil under the antenna. Your radial system is of little use. Only a large metal sheet placed on the soil surface would be effective.

Your buried radial system is an overkill. If it was removed you would probably notice no difference in performance. But the radials will perform an excellent service if you should later wish to erect a vertical antenna above them.

An increase in height will result in better low-angle DX. Increasing height to only to 8 or 10 feet should produce a noticeable improvement. And loss in the ground will be negligible.

To get it above ALL low-angle obstructions, fix it to your house chimney. ;o)

Reg, G4FGQ.

4753. Re: antenna papers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 11:48:09 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <aPKdncTgppLquwDZnZ2dnUVZ_uudnZ2d@comcast.com>
Source record: 57195

gravity wrote:

> "Dave" <W1MCE@comcast.net> wrote in message
> news:LsKdnTyFfbdsYAfZnZ2dnUVZ_oCdnZ2d@comcast.com...
>
>>gravity wrote:
>>
>>
>>>any good antenna theory sites? i have taken emag and difeqs, but i need
>>>something that it is easy on the brane.
>>>
>>>should i get the Kraus book?
>>>
>>>TIA,
>>>
>>>Gravity
>>>
>>>
>>
>>ANTENNAS, J. Kraus, McGraw-Hill 1950, is a great reference. If you passed
>
> 'emag
>
>>and difeqs' in college you should be comfortable with Kraus.
>>
>>Now, I have a question: "If you passed 'emag and difeqs' why do you worry
>
> about
>
>>'easy on the brane[sic]' ? You have adequate 'brane' power.
>>
>
>
> there's no reason to have so many quotation marks. using terms like
> "engineering electromagnetics" and "ordinary differential equations" reeks
> of pretension, imo.
>
> Gravity
>
>

When I am quoting anyone I put their words or phrases in quotations.

Don't you?

4754. Re: antenna papers

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 12:16:08 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449d2d68$0$16347$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57196

"Dave" <W1MCE@comcast.net> wrote in message
news:aPKdncTgppLquwDZnZ2dnUVZ_uudnZ2d@comcast.com...

> When I am quoting anyone I put their words or phrases in quotations.
>
> Don't you?
>

given "snipping" by others, your method may be superior to mine.

Gravity

4755. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 13:00:08 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sHang.156260$F_3.137870@newssvr29.news.prodigy.net>
Source record: 57197

w8ji@akorn.net wrote:
> Cecil Moore wrote:
>> As you are doing, I could cut and paste your postings to make you
>> seem ignorant and insane. But only an unethical person does that.
>
> Then you are also unethical, because if you look back that is EXACTLY
> what you do to others.

It is my custom to trim out the part of postings with which I
agree and respond to the part with which I disagree. I believe
that is in accordance with the newsgroup guidelines. I do not,
as you do, cut and paste to completely change the meaning of
what was previously posted so you can attack a straw man of
your own creation.

Your latest posting, where you take my mental exercise example
of a hypothetical antenna with a hypothetical highly charged
particle hitting it to try to prove that I said each real world
particle causes noise that can be heard in a receiver is really,
really lame.

> That is why Roy and others have you in a "Cecil filter".

Roy ploinked me because I said an antenna is a distributed network.
I thought he had previously said an antenna was a lumped circuit.
Instead of telling me that's not what he meant and giving me a chance
to apologize, he ploinked me.

When you are willing to rationally discuss those hypothetical
examples I have posted, let me know.
--
73, Cecil http://www.qsl.net/w5dxp

4756. Re: Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 13:28:28 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <06bng.475487$xt.71714@fe3.news.blueyonder.co.uk>
Source record: 57198

"Reg Edwards" <g4fgq.regp@ZZZbtinternet.com> wrote in message
news:7K6dnUXV_N89gADZRVnyhA@bt.com...
> Lee,
> Signals within 1000 miles come through strongest because they are
> nearer to you.

Agreed....

> Also, with an antenna height of only 3 feet, low-angle reception and
> radiation suffers from being screened by buildings and other
> obstructions in the vicinity of the antenna.

Also agreed....

> At low heights there is a considerable power loss induced in the soil
> under the antenna. Your radial system is of little use. Only a large
> metal sheet placed on the soil surface would be effective.

Yes...

> Your buried radial system is an overkill. If it was removed you would
> probably notice no difference in performance. But the radials will
> perform an excellent service if you should later wish to erect a
> vertical antenna above them.

That was what the groundmat was for originally, but my neighbours didn`t
like it, so, down it came....hence the magloop...

> An increase in height will result in better low-angle DX. Increasing
> height to only to 8 or 10 feet should produce a noticeable
> improvement. And loss in the ground will be negligible.

I`ll try that Reg, i just wasn`t sure above which height would be of little
or no advantage, vertical....
but if the loop were horizontal then halfwave at the lowest frequncy i
suppose!!

> To get it above ALL low-angle obstructions, fix it to your house
> chimney. ;o)

No chimney Reg :-/

Thanks.....

Lee.....G6ZSG......

> Reg, G4FGQ.
>
>

4757. Re: Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 13:39:18 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <agbng.475499$xt.211069@fe3.news.blueyonder.co.uk>
Source record: 57199

<w8ji@akorn.net> wrote in message
news:1151144022.537224.263570@g10g2000cwb.googlegroups.com...
>
> Lee wrote:
<
>
> With a low height "vertically polarized" loop the ground would never
> hurt the antenna and always help it to some extent. The only exception
> might be if the soil is so very poor it looks nearly invisible, or so
> good it looks perfect.

Loam!!!....

> I would not remove the ground mat, although 6 inches is pretty deep!

????.......mat was the wrong word i suppose....ground system if you
wish......

> A small loop is a very inefficient radiator unless you do everything
> perfectly, and if perfectly done it has mediocre efficiency.

Better than the small low antennas that i could fit into a 35` x 16`
garden... ;-)

> So how did you build the loop?

Oh, the regular circular shape 10`x 0.625" tube with a `T` shaped frame
support and motor driven cap........

Lee......G6ZSG......
>

4758. Re: Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 14:10:06 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449d4821$0$16012$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57200

> I`ll try that Reg, i just wasn`t sure above which height would be of
little
> or no advantage, vertical....
> but if the loop were horizontal then halfwave at the lowest frequncy i
> suppose!!

i used radials with my monopoles, but not my vertical dipoles. i have never used a Magloop.

i suspect getting an antenna off the ground helps. the trees and buildings are out of the way. does it lower the elevation angle? does it change ground loss?

just as an example, i tried a 10 meter vertical at 100 feet. it compared favorably with a tribander on some paths! conventional wisdom is that a beam smokes a vertical.

Gravity

4759. Re: Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 14:22:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <PUbng.28479$VE1.28428@newssvr14.news.prodigy.com>
Source record: 57201

gravity wrote:
> just as an example, i tried a 10 meter vertical at 100 feet. it compared
> favorably with a tribander on some paths!

EZNEC will tell you why.
--
73, Cecil http://www.qsl.net/w5dxp

4760. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 15:15:36 UTC
From: billy_shittydrawers_smith@yahoo.com
Message-ID: <1151162136.430060.212490@u72g2000cwu.googlegroups.com>
Source record: 57202
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

```
an old freind wrote:
> kb9rqz_child_molester@yahoo.com wrote:
> > an old freind wrote:
> > > kb9rqz_child_molester@yahoo.com wrote:
> > > > an old friend wrote:
> > > > > peewee_lloyd_davies@yahoo.com wrote:
> > > > > > an old freind wrote:
> > > > > > sex with
> > > > > > >
> > > > > > >
> > > > > > > And You have sex with other man and goats, faggot!
> > > > > > get help prevert
> > > > >
> > > > Says the self admitted homosexual deviant Mark Morgan.
> > > no say <whaaaaaaah!>
> >
> > Says the child molester Mark Morgan the queer deviant!
> nope
Yep says the state of Michigan aboiut child molester Mark Morgan!
```

4761. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 15:40:07 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <129qn4gq8iod1f@corp.supernews.com>
Source record: 57203

Dear Jim Pennino WB6DKH:

Well said, and yet here we are over 100 messages latter (even with a
Cecil filter) with strange contentions still going on. It has become
apparent that this is a religious debate and it is time for additional
filtering.

To supplement my message of June 7, 2006:
One should provide continuity to earth from as many elevated conductors
as possible. It is sometimes difficult to do this with guy wires that are
"broken up" with insulators.
Location is an important factor with respect to which local,
non-man-made noise sources dominate. In Toledo, Ohio and Georgia it might
be one thing and in the Arizona desert quite a different thing.
Time and local weather is also an important factor. Lighting discharges
off of, or towards, an antenna will dominate everything else.
Having spent the last 73% of my life in an academic setting involving
science and engineering where orthodoxy applies only (temporarily) to
verified physical laws, I now understand why wars are fought over which end
of the egg is cracked first. It has rounded out my education.

As Roy has pointed out: it important to observe to the readers who are
not participating that they should filter what they read with care.

Thank you Jim for interjecting your experience.

73 Mac N8TT

--
J. Mc Laughlin; Michigan U.S.A.
Home: JCM@Power-Net.Net

<snip>
>
> Umm, no, two different things.
>
> If it were charge building somewhere and discharging it wouldn't have
> the characteristics it does, which is random, continuous, of extremely
> short duration, and at a very high rate.
>
> When it gets bad, it is quite visible as very random "snow" on TV
> channels 2 through 4 on an otherwise perfect picture.
>
> The snow is spots of extremely short duration.
>
> Arcing (my neighbor has an arc welder so I have something to compare

> it to) shows up as lines. When watching TV while he is welding it
> is very obvious from the visual "noise" when he trying to start an
> arc on some rusty thing versus an established arc from the length
> of the visual "noise".
>
> This particular effect ONLY happens during low humidity on very
> windy days.
>
> The intensity of the snow changes very little with wind speed, the
> duration not at all, but the rate changes drastically.
>
> I took all the electromagnetic courses to get my BSEE and I'm a
> pilot, so yes, I know about corona.
>
> --
> Jim Pennino
>
>

4762. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 17:05:02 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <1h70n3-291.ln1@mail.specsol.com>
Source record: 57204

Cecil Moore <mycall@hotmail.com> wrote:
> jimp@specsol.spam.sux.com wrote:
> > When it gets bad, it is quite visible as very random "snow" on TV
> > channels 2 through 4 on an otherwise perfect picture.
> >
> > The snow is spots of extremely short duration.

> So one can see the individual charged particles even if
> one cannot hear the individual charged particles. That
> makes a lot of sense. I wish I had thought to hook my
> antenna up to my TV while the charged particle problem
> was occurring.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Well, at this point I wouldn't bet the farm on the base cause being charged partcles impacting the antenna, but if it walks like a duck and quacks like a duck...

However, for this particular effect it is obvious that it is quantized and that the rate of generation is directly proportional to the wind speed.

Since there is nothing in the air large enough to be visible, it would seem reasonable that whatever is delivering charge to something is dust particles.

The number of dust particles in the air is also directly proportional to the wind speed, lending further credence to the theory.

As to how to test the theory, fooling around with the TV antenna on the roof with 40 to 60 knot gusts isn't going to be done by me no matter how much beer you provide.

One thought would be to make a pair of channel 2 dipoles with one inside a non-conducting dust cover.

Put the two antennas side by side and compare the results seen on the TV screen.

Another experiment would be to build a full sized dipole and a shortened loaded dipole for channel 2.

If the effect is caused by particles impacting the antenna, the quantity of snow would be proportional to the antenna sizes.

It would be interesting to see what happens.

In any case, Santa Ana winds don't normally appear this time of year, so there are about six months to come up with a definative experiment.

And yes, if it is simple and cheap enough, I'm willing to do it.

--
Jim Pennino

Remove .spam.sux to reply.

4763. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 17:47:27 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <PUeng.56179$Lm5.55836@newssvr12.news.prodigy.com>
Source record: 57205

jimp@specsol.spam.sux.com wrote:
> Since there is nothing in the air large enough to be visible, it
> would seem reasonable that whatever is delivering charge to something
> is dust particles.

Unfortunately, one poster here apparently thinks if he cannot
see it, it doesn't exist. Presumably, if he ever goes blind,
even his ham transceiver will cease to exist. :-)

He reminds me of a governmental expert who said yesterday
on Foxnews: Since the successful kill rate for our anti-ICBM
missiles is 60%, we have to fire two of them to be sure we
shoot it down. :-) (After all 60% + 60% = 120% and wouldn't
that be overkill?) :-)

> And yes, if it is simple and cheap enough, I'm willing to do it.

I indirectly performed experiments in curing my arcing problem.
I replaced the bare wire with ordinary 600v insulated wire. It
reduced the problem considerably but didn't cure it. I then found
an antenna wire called "quietflex" at a hamfest that has 1000v
insulation. To the best of my knowledge, that cured the problem.
There is apparently a thickness of insulation that prohibits
the transfer of charge from dust particles.
--
73, Cecil http://www.qsl.net/w5dxp

4764. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 18:18:16 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449d824f$0$51839$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57206

> He reminds me of a governmental expert who said yesterday
> on Foxnews: Since the successful kill rate for our anti-ICBM
> missiles is 60%, we have to fire two of them to be sure we
> shoot it down. :-) (After all 60% + 60% = 120% and wouldn't
> that be overkill?) :-)

84%. the "expert" might borrow a copy of Innumeracy.

the astute reader will note that this figure may not work in the real world.

Gravity

4765. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 18:57:03 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <3Wfng.72200$4L1.43465@newssvr11.news.prodigy.com>
Source record: 57207

gravity wrote:
>> He reminds me of a governmental expert who said yesterday
>> on Foxnews: Since the successful kill rate for our anti-ICBM
>> missiles is 60%, we have to fire two of them to be sure we
>> shoot it down. :-) (After all 60% + 60% = 120% and wouldn't
>> that be overkill?) :-)
>
> 84%. the "expert" might borrow a copy of Innumeracy.

And how many missiles must be fired to 100% assure a
kill? :-) The North Koreans probably understand
probability even if the governmental expert doesn't.
--
73, Cecil http://www.qsl.net/w5dxp

4766. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 19:01:42 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449d8c7e$0$79632$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57208

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:3Wfng.72200$4L1.43465@newssvr11.news.prodigy.com...
> gravity wrote:
> >> He reminds me of a governmental expert who said yesterday
> >> on Foxnews: Since the successful kill rate for our anti-ICBM
> >> missiles is 60%, we have to fire two of them to be sure we
> >> shoot it down. :-) (After all 60% + 60% = 120% and wouldn't
> >> that be overkill?) :-)
> >
> > 84%. the "expert" might borrow a copy of Innumeracy.
>
> And how many missiles must be fired to 100% assure a
> kill? :-)

probabilistic methods can be reliable. for instance, primality testing.
you can get the possibility of error down to 0.0000001%. but harder with
missiles.

they still use MIRVs with a hundred dummy warheads?

the Patriot was $1 mil a shot as i recall.

Gravity

4767. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 19:38:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <DPidnUWSjtr3CADZnZ2dnUVZ8qudnZ2d@bt.com>
Source record: 57209

The thickness of insulation on an antenna wire does not entirely reduce noise due to (charged particle) precipitation.

There are two capacitances involved - the self-capacitance of individual isolated particles and the much greater capacitance of the insulating material between its surface and the wire.

When it impacts with the thick insulation, the electric charge on a particle redistributes itself between antenna capacitance and particle capacitance.

Only a very small fraction of particle volts is transferred to the antenna via antenna capacitance. The result is a reduction in receiver noise.

For given particle volts, size of particle, thickness of antenna wire insulation, permittivity of insulation, the noise induced in the receiver is calculable.

As Roy would insist on, to prove the point, all you have to do is measure the average volts on a particle of average diameter.

And the best way of doing that is to work backwards from the S-meter. ;o)

A nice, low noise antenna can be constructed by removing everything from the inner conductor of a 1" diameter coaxial cable except the solid polyethylene insulation.

This is an expensive operation, likely in the UK to of use only for 15 minutes every few years. So nobody bothers.

Reg.

4768. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 20:32:19 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <njhng.157658$F_3.92269@newssvr29.news.prodigy.net>
Source record: 57210

Reg Edwards wrote:
> The thickness of insulation on an antenna wire does not entirely
> reduce noise due to (charged particle) precipitation.

Yes, I assumed that was so, but in my case, it reduced the
noise to an acceptable level under most conditions.

> Only a very small fraction of particle volts is transferred to the
> antenna via antenna capacitance. The result is a reduction in
> receiver noise.

Would you mind explaining this law of physics to W8JI?
--
73, Cecil http://www.qsl.net/w5dxp

4769. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 20:54:00 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <IDhng.157670$F_3.135957@newssvr29.news.prodigy.net>
Source record: 57211

J. Mc Laughlin wrote:
> Well said, and yet here we are over 100 messages latter (even with a
> Cecil filter) with strange contentions still going on.

Please note that 100 years ago, some eminent physicists
had their Einstein filters enabled. Light being affected
by gravity? Good grief!
--
73, Cecil http://www.qsl.net/w5dxp

4770. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 21:17:25 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449dac51$0$16372$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57212

> Please note that 100 years ago, some eminent physicists
> had their Einstein filters enabled. Light being affected
> by gravity? Good grief!
> --
> 73, Cecil http://www.qsl.net/w5dxp

1687 -- Newton's Principia Mathematica
1912 -- Einstein's General Relativity
2006 -- Cecil's Clear Sky Charged Particles

Gravity

4771. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 21:19:34 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449dacd1$0$15591$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57213

> Please note that 100 years ago, some eminent physicists
> had their Einstein filters enabled. Light being affected
> by gravity? Good grief!

All truth passes through three stages. First, it is ridiculed. Second, it is violently opposed. Third, it is accepted as being self-evident.
(Arthur Schopenhauer)

Gravity

4772. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 21:34:02 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <eding.157679$F_3.7739@newssvr29.news.prodigy.net>
Source record: 57214

gravity wrote:
> All truth passes through three stages. First, it is ridiculed. Second, it is
> violently opposed. Third, it is accepted as being self-evident.

What is being missed is that charged particle RF noise
is already conventional-wisdom/mainstream-physics.
--
73, Cecil http://www.qsl.net/w5dxp

4773. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 21:40:06 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <Wiing.4092$Yk.753@trnddc06>
Source record: 57215

Cecil Moore wrote:
> John - KD5YI wrote:

>> Why #14 with rounded ends? Because it supports your position? Why not
>> suppose smaller wire and sharper points?
>
>
> Seems you misunderstand. I'm not saying corona never occurs.
> I'm saying it is possible for charged particle
> noise to exist without corona occurring. Do you understand the
> difference between an exclusive statement and an inclusive
> statement? It's the other side making the exclusive assertions.
> All I have to do is present one example where charged particle
> noise exists without corona. That case may be a #14 wire with
> rounded ends.

No, Cecil, it seem that *you* misunderstand. My point was that you quote 100 uA/cm^2, and it takes very little current to achieve that with a tiny point.

But, nevermind. This has become pointless.

John

4774. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 21:54:15 UTC
From: "Dr. Noonian Soong" <soong@soong>
Message-ID: <449db4f4$0$79459$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57216

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:IDhng.157670$F_3.135957@newssvr29.news.prodigy.net...
> J. Mc Laughlin wrote:
> > Well said, and yet here we are over 100 messages latter (even with a
> > Cecil filter) with strange contentions still going on.
>
> Please note that 100 years ago, some eminent physicists
> had their Einstein filters enabled. Light being affected
> by gravity? Good grief!
> --
> 73, Cecil http://www.qsl.net/w5dxp

people have Art Bell filter, is a bad thing?

silly Americans not know 3 main sources of noise. not hard, use Maxell
equations.

maybe i hire Dr. Moore to waste people time. they have no energy left put
up big array. i win contest.

Soong

4775. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 21:57:04 UTC
From: "Dr. Noonian Soong" <soong@soong>
Message-ID: <449db59e$0$16444$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57217

"John - KD5YI" <groups5munge@verizon.net> wrote in message
news:Wiing.4092$Yk.753@trnddc06...
> Cecil Moore wrote:
> > John - KD5YI wrote:
>
> >> Why #14 with rounded ends? Because it supports your position? Why not
> >> suppose smaller wire and sharper points?
> >
> >
> > Seems you misunderstand. I'm not saying corona never occurs.
> > I'm saying it is possible for charged particle
> > noise to exist without corona occurring. Do you understand the
> > difference between an exclusive statement and an inclusive
> > statement? It's the other side making the exclusive assertions.
> > All I have to do is present one example where charged particle
> > noise exists without corona. That case may be a #14 wire with
> > rounded ends.
>
> No, Cecil, it seem that *you* misunderstand. My point was that you quote
100
> uA/cm^2, and it takes very little current to achieve that with a tiny
point.
>
>
> But, nevermind. This has become pointless.
>
> John

is silly when American need more physics. make up equation and numbers
pulled out of hattrick. you make up anything, maybe 99 percent people
believe.

Soong

4776. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 21:59:39 UTC
From: "Dr. Noonian Soong" <soong@soong>
Message-ID: <449db639$0$16418$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57218

> And how many missiles must be fired to 100% assure a
> kill? :-)

missiles shot at Bikini Island, work 100%. no problem blowing up island.
maybe government pull head out of ass and make more old school technology.

Soong

4777. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 22:00:48 UTC
From: "Dr. Noonian Soong" <soong@soong>
Message-ID: <449db67d$0$15916$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57219

> Unfortunately, one poster here apparently thinks if he cannot
> see it, it doesn't exist.

in my country, people say in land of blind one eye man is king.

Soong

4778. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 22:02:23 UTC
From: "Dr. Noonian Soong" <soong@soong>
Message-ID: <449db6dc$0$51839$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57220

> Well said, and yet here we are over 100 messages latter (even with a
> Cecil filter) with strange contentions still going on.

yea, maybe Dr. Moore wrong, maybe Dr. Tom wrong. but i not give advanced
contest physics to American.

Soong

4779. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 22:15:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <OPing.72630$4L1.185@newssvr11.news.prodigy.com>
Source record: 57221

John - KD5YI wrote:
> No, Cecil, it seem that *you* misunderstand. My point was that you quote
> 100 uA/cm^2, and it takes very little current to achieve that with a
> tiny point.

How much current does it take to achieve when a tiny
point doesn't exist? Can a dipole made out of #8 wire
with rounded ends exhibit corona during receive? If not,
the other side loses the argument.

I suggest you study exclusive Vs inclusive arguments.
The other side is saying that RF noise due to charged
particles is *always* accompanied by corona no matter
what antenna configuration is used. I am saying it is
not always accompanied by corona.
--
73, Cecil http://www.qsl.net/w5dxp

4780. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 23:10:36 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <MDjng.1161$Gh.880@trnddc02>
Source record: 57222

Cecil Moore wrote:
> John - KD5YI wrote:
>
>> No, Cecil, it seem that *you* misunderstand. My point was that you
>> quote 100 uA/cm^2, and it takes very little current to achieve that
>> with a tiny point.
>
>
> How much current does it take to achieve when a tiny
> point doesn't exist? Can a dipole made out of #8 wire
> with rounded ends exhibit corona during receive? If not,
> the other side loses the argument.

Tiny points exist everywhere, all the time, whether you wish it or not.

So, did you make any calculations? Did you even try to refute your own hypothesis? Have you looked at this from any other viewpoint?

> I suggest you study exclusive Vs inclusive arguments.
> The other side is saying that RF noise due to charged
> particles is *always* accompanied by corona no matter
> what antenna configuration is used. I am saying it is
> not always accompanied by corona.

Cecil, I am not going to study logic or psychology or philanthropy or anthropology or Malaysan Frog Worship or anything else you suggest just so I can understand your comments or arguments. You're input isn't worth it. It would seem to me that you should be able to present your thoughts so that people of my un-educatedness could understand. But, perhaps that is not what you want. Perhaps you feel it is better that you carry on your debate with those who are more deserving of your debating capabilities.

So be it.

John

4781. Re: Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-24 23:58:07 UTC
From: Dan Andersson <dan@andersson.co.uk>
Message-ID: <YuicnXDjXPsKTADZSa8jmw@karoo.co.uk>
Source record: 57223

Lee wrote:

> My homebrew 3 foot dia Magloop works very well vertically mounted 3 foot
> off the ground but i`m wondering if maybe it could do a little better in
> the low angle radiation department ....i seem to hear stations within
> 1000miles consistently strongest.....VKs and stateside etc much lower
> !!!.....
>
> The loop is mounted on a rotator above a groundmat buried about 6 inches
> beneath the lawn and consists of 30 radials each about 30 foot long and
> the loop is mounted in the centre, is that ok, or should i work the loop
> higher than 3 feet above the mat, or remove the ground mat and work just
> with medium loam soil underneath instead??........
>
> Thanks to Cecil and others for help and advice in building the loop, it
> tunes 40 thro` 15 meters......
>
> Lee......G6ZSG.....

Lee,

Try mounting your loop horizontally instead. Look at the MFJ mag loop.

By doing so, you will have a significantly lower pattern of radiation from your loop. You can also use a remotecontrolled LC network to change directivity of the mag loop without a rotor. However, it's simpler with a rotor.

To avoid skewed directivity from your loop, you can feed it with a balanced, dual gamma match. Combined with a RF trafo with a centre tap on the secondary side (antenna side) connected to the zero point at the loop, you get a more equal pattern of radiation.

Don't bother increasing the mount unless you have electrically conductive objects nearby. A loop does not need a groundplane.

As long as you can remotely tune and direct your mag loop, you actually have a rather good antenna. Don't listen to much to these who have acres of land and no neighbours but have fun making QSO's instead!

Cheers

Dan / M0DFI

4782. All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 00:45:43 UTC
From: tomk3mov@yahoo.com
Message-ID: <1151196343.440223.242020@c74g2000cwc.googlegroups.com>
Source record: 57224

The BuxComm Antenna Company sells what it calls an All Band Coax-fed Dipole.

http://www.commparts.com/catalog/product_info.php?cPath=9&products_id=114318&osCsid=a84f7ccef1c8c9d59effad91005875fb

It consists of 135 ft. of wire, a balun at the center feed point, and the RG 8X coax transmission line. I don't claim to know a whole lot about antennas, but this configuration is contrary to everything that I have read about feeding mutiband antennas. When I wrote to the company with a question about this, I received a response from K4ABT, Buck Rogers himself. He attached to his note a section from the ARRL Antenna Book, which seems to indicate that coax should not be used with this type of antenna if one wants to use it as a multibander. I have a lot of respect for Buck, based on his years of Elmering a lot of us through his articles. But this one has me stumped. Any input will be appreciated.

4783. Re: Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 01:00:21 UTC
From: w8ji@akorn.net
Message-ID: <1151197221.491935.82790@r2g2000cwb.googlegroups.com>
Source record: 57225

Lee wrote:
> Oh, the regular circular shape 10`x 0.625" tube with a `T` shaped frame
> support and motor driven cap........

I assume the tubing is very well connected at the joints? Copper tube?

What type of capacitor? How are the connections made?

Turning the loop horizontal won't help unless you can get it up 1/4
to1/2 wave or more.

Close to earth you are better off with vertical, and the mat will help
efficiency although it is pretty deep for higher bands.

73 Tom

4784. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 01:22:36 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <uvnr921m3r6u9ehdaeh08uartuqs17tjae@4ax.com>
Source record: 57126

On 24 Jun 2006 17:45:43 -0700, tomk3mov@yahoo.com wrote:

>The BuxComm Antenna Company sells what it calls an All Band Coax-fed
>Dipole.
>
>http://www.commparts.com/catalog/product_info.php?cPath=9&products_id=114318&osCsid=a84f7ccef1c8c9d59effad91005875fb
>
>
>It consists of 135 ft. of wire, a balun at the center feed point, and
>the RG 8X coax transmission line. I don't claim to know a whole lot
>about antennas, but this configuration is contrary to everything that I
>have read about feeding mutiband antennas. When I wrote to the company
>with a question about this, I received a response from K4ABT, Buck
>Rogers himself. He attached to his note a section from the ARRL Antenna
>Book, which seems to indicate that coax should not be used with this
>type of antenna if one wants to use it as a multibander. I have a lot
>of respect for Buck, based on his years of Elmering a lot of us through
>his articles. But this one has me stumped. Any input will be
>appreciated.

It all goes to the meaning of "works".

You will need to make your own mind up about what losses are
acceptable.

You should expect that the feedpoint impedance of that antenna at
resonance around 7MHz is about 4200 ohms.

The loss in 25m (~75') of RG8X will be about 8.3dB, or about 15% of
your transmitter power reaches the balun.

If you used a quarter wave of RG8X, the worst case line loss is around
0.7dB (or about 15%) per meter near the transmitter, that indicates
60W/m dissipation in that region at the 400W continuous power rating.
I doubt that RG8X is suited to this antenna on 7MHz at 400W
continuous, but with the lower average power level of voice SSB, it
should not be an issue.

The balun power rating and losses are another issue with this load
impedance, but in the absence of detail on the balun design, I will
say not more than more information needed!

There was an article in QST some time back visiting the issues with
multiband operation of a dipole with coax feed. The article was
centred around a 66' dipole, but the lessons apply to your prospective
purchase. I wrote an article at http://www.vk1od.net/LOLL/index.htm

reviewing the QST article, there are links to the original article and some other relevant articles at the bottom of mine.

Owen

PS: Nothing here is to suggest you wont get QSOs.
--

4785. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 02:11:47 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Dhmng.108635$H71.108377@newssvr13.news.prodigy.com>
Source record: 57127

John - KD5YI wrote:
> Tiny points exist everywhere, all the time, whether you wish it or not.

White cars exist everywhere, all the time, whether one wishes
it or not, yet not all cars are white. To maintain that all
cars are white when at least one is red is not logical.

> Cecil, I am not going to study logic ...

You should at least study enough of it to get by in this
world. The truth is, not all cars are white.
--
73, Cecil http://www.qsl.net/w5dxp

4786. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 02:19:22 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Komng.108637$H71.57328@newssvr13.news.prodigy.com>
Source record: 57129

tomk3mov@yahoo.com wrote:
> The BuxComm Antenna Company sells what it calls an All Band Coax-fed
> Dipole.
>
> http://www.commparts.com/catalog/product_info.php?cPath=9&products_id=114318&osCsid=a84f7ccef1c8c9d59effad91005875fb

When I clicked on it, it said "product not found".
--
73, Cecil http://www.qsl.net/w5dxp

4787. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 02:19:43 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <PdOdndrvUYcjbwDZnZ2dnUVZ_sWdnZ2d@comcast.com>
Source record: 57128

I get product not found!!

Is the URL complete?

tomk3mov@yahoo.com wrote:
> The BuxComm Antenna Company sells what it calls an All Band Coax-fed
> Dipole.
>
> http://www.commparts.com/catalog/product_info.php?cPath=9&products_id=114318&osCsid=a84f
7ccef1c8c9d59effad91005875fb
>
>
> It consists of 135 ft. of wire, a balun at the center feed point, and
> the RG 8X coax transmission line. I don't claim to know a whole lot
> about antennas, but this configuration is contrary to everything that I
> have read about feeding mutiband antennas. When I wrote to the company
> with a question about this, I received a response from K4ABT, Buck
> Rogers himself. He attached to his note a section from the ARRL Antenna
> Book, which seems to indicate that coax should not be used with this
> type of antenna if one wants to use it as a multibander. I have a lot
> of respect for Buck, based on his years of Elmering a lot of us through
> his articles. But this one has me stumped. Any input will be
> appreciated.
>

4788. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 02:45:07 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <aktr925vpfh4iql4p3ra6q899fq2f5e02j@4ax.com>
Source record: 57130

On Sat, 24 Jun 2006 22:19:43 -0400, Dave <W1MCE@comcast.net> wrote:

>I get product not found!!
>

It is probably one of those clever bits of web technology that use
dynamic URLs so that they can't be passed on or linked (probably to
frustrate discussion like this)!

Search for 8010ABD100 on their home page.

Owen

>Is the URL complete?
>
>tomk3mov@yahoo.com wrote:
>> The BuxComm Antenna Company sells what it calls an All Band Coax-fed
>> Dipole.
>>
>> http://www.commparts.com/catalog/product_info.php?cPath=9&products_id=114318&osCsid=a84
f7ccef1c8c9d59effad91005875fb
>>
>>
>> It consists of 135 ft. of wire, a balun at the center feed point, and
>> the RG 8X coax transmission line. I don't claim to know a whole lot
>> about antennas, but this configuration is contrary to everything that I
>> have read about feeding mutiband antennas. When I wrote to the company
>> with a question about this, I received a response from K4ABT, Buck
>> Rogers himself. He attached to his note a section from the ARRL Antenna
>> Book, which seems to indicate that coax should not be used with this
>> type of antenna if one wants to use it as a multibander. I have a lot
>> of respect for Buck, based on his years of Elmering a lot of us through
>> his articles. But this one has me stumped. Any input will be
>> appreciated.
>>
--

4789. Re: Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 03:39:28 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <Qznng.470552$tc.367621@fe2.news.blueyonder.co.uk>
Source record: 57131

<w8ji@akorn.net> wrote in message
news:1151197221.491935.82790@r2g2000cwb.googlegroups.com...
>
> Lee wrote:
> > Oh, the regular circular shape 10`x 0.625" tube with a `T` shaped frame
> > support and motor driven cap........
>
>
> I assume the tubing is very well connected at the joints? Copper tube?

Yes!

> What type of capacitor? How are the connections made?

Variable airspaced 12-14kv rotary supplied as a kit by local radio
company --£18.50p---

> Turning the loop horizontal won't help unless you can get it up 1/4
> to1/2 wave or more.

I already said that! :-)

> Close to earth you are better off with vertical, and the mat will help
> efficiency although it is pretty deep for higher bands.

!!!....

> 73 Tom
>

Thanks Tom.

73. Lee....de G6ZSG.....

4790. Re: Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 03:52:25 UTC
From: Lee <lo012a4519@blueyonder.co.uk>
Message-ID: <ZLnng.470662$tc.155664@fe2.news.blueyonder.co.uk>
Source record: 57132

"Dan Andersson" <dan@andersson.co.uk> wrote in message
news:YuicnXDjXPsKTADZSa8jmw@karoo.co.uk...
> Lee wrote:
<snip...

> > Lee......G6ZSG.....
>
>
> Lee,
>
> Try mounting your loop horizontally instead. Look at the MFJ mag loop.

Can`t afford the MJF on a pension besides for £50, mine works as well as the
MJF probably better as i use copper tube, MJF use aluminium!! and mine was
£350 cheaper.....

Thought about horizontal and high but the neighbours object altho` my tower
has been there before they moved in.....keeping the peace i suppose!!.

> By doing so, you will have a significantly lower pattern of radiation from
> your loop. You can also use a remotecontrolled LC network to change
> directivity of the mag loop without a rotor. However, it's simpler with a
> rotor.

Yes, once again it`s the height.

> To avoid skewed directivity from your loop, you can feed it with a
balanced,
> dual gamma match. Combined with a RF trafo with a centre tap on the
> secondary side (antenna side) connected to the zero point at the loop,
> you get a more equal pattern of radiation.

I`m currently feeding with a faraday loop.....

> Don't bother increasing the mount unless you have electrically conductive
> objects nearby. A loop does not need a groundplane.

That`s what i thought.

> As long as you can remotely tune and direct your mag loop, you actually
have
> a rather good antenna. Don't listen to much to these who have acres of
land
> and no neighbours but have fun making QSO's instead!

Thanks.

Lee.....G6ZSG.....

>
> Cheers
>
> Dan / M0DFI

4791. rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 04:59:11 UTC
From: Frank Alforo <falforo@dslextreme.com>
Message-ID: <129s61p92po1l17@corp.supernews.com>
Source record: 57133

If I touch the coil in my tuner while transmitting I get a painful rf burn. But a bird can perch on my antenna wire while I transmit 100 watts and it stays there seemingly without a care in the world. How come?

4792. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 05:00:12 UTC
From: SeeingEyeDogg <look@u.org>
Message-ID: <129s6amo0lvsl84@corp.supernews.com>
Source record: 57134
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"David" <rickets@knac.com> wrote
>
> The purpose of business is to keep people busy.
>

Find a job yet, Dr. DaviD?
Obviously, you have no use for business.
Welfare checks just too damn easy.

4793. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 05:01:35 UTC
From: SeeingEyeDogg <look@u.org>
Message-ID: <129s6d9cim1pda5@corp.supernews.com>
Source record: 57135
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"David" <rickets@knac.com> puked >
> Those gated communities won't protect you from the thundering hordes
> of hungry people.
>

Mao TseDong would be extremely proud of you.

4794. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 05:03:23 UTC
From: SeeingEyeDogg <look@u.org>
Message-ID: <129s6glrfgfb9cb@corp.supernews.com>
Source record: 57136
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"David" <rickets@knac.com> wrote
>
> When a company moves offshore they do not reduce prices to the end
> users. They increase their profits. Most big companies don't even
> pay income taxes because they are legally running out of a drawer in
> some Carribean island.
>
> Eventually the middle class will be gone due to outsourcing. That
> will be the end of the USA.
>

Thank Impeached Clintoon. Besides, what do you care, Dr. DaviD? Your
welfare checks will still arrive, no?

4795. Re: OT: Outsourcing

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 05:07:07 UTC
From: SeeingEyeDogg <look@u.org>
Message-ID: <129s6nllmvmaa23@corp.supernews.com>
Source record: 57137
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"David" <rickets@knac.com> wrote
>
> During a more civilised time a company went into business to provide
> jobs and make profits and to be part of a community. Nowadays
> corporations are extranational, have no local ties and just milk
> markets dry and move on.

How would you describe your welfare stipend?
Will you move on when it runs dry?

> Corporations pay way less than half th cost of running governments,
> even though they are the major beneficieries of what governments
> provide. This is because we let them write their own rules.
>

What "provider benefits" may those be, Dr. David?

4796. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 05:23:42 UTC
From: Ed <Huckleberry_REMOVE_@bigvalley.net>
Message-ID: <Xns97ECE3DB4AB78spectrumhogstarbandn@198.186.192.196>
Source record: 57138

> If I touch the coil in my tuner while transmitting I get a painful rf
> burn. But a bird can perch on my antenna wire while I transmit 100
> watts and it stays there seemingly without a care in the world. How
> come?

although an over-simplification, the bird is not touching anything
else, (grounded)... but you are.

4797. Re: Magloop and ground mat blues.....

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 07:19:46 UTC
From: w8ji@akorn.net
Message-ID: <1151219986.729607.93190@u72g2000cwu.googlegroups.com>
Source record: 57139

Lee wrote:

> > What type of capacitor? How are the connections made?
>
> Variable airspaced 12-14kv rotary supplied as a kit by local radio
> company --£18.50p---

Is the capacitor a butterfly type?

How do they keep current out of pressure contacts?

Why did you only make it 3 feet diameter, because you wanted to use higher bands like ten meters?

How are the connections made?

You know of course even the physical size of the cap (if physically large) can greatly affect loop efficiency.

It's nearly impossible to make a small loop work like most people predict. Lots of things can be problems.

73 Tom

4798. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 10:16:43 UTC
From: Dave <noone@nowhere.com>
Message-ID: <kJKdnV2QOYIJ_wPZnZ2dnUVZ_qCdnZ2d@crocker.com>
Source record: 57140

even if you aren't touching something you have a much larger surface area to act as a capacitive path to ground for the rf. the small bird being a long distance from ground and having a smaller area has much smaller capacitive currents.

"Ed" <Huckleberry_REMOVE_@bigvalley.net> wrote in message news:Xns97ECE3DB4AB78spectrumhogstarbandn@198.186.192.196...
>
>> If I touch the coil in my tuner while transmitting I get a painful rf
>> burn. But a bird can perch on my antenna wire while I transmit 100
>> watts and it stays there seemingly without a care in the world. How
>> come?
>
>
> although an over-simplification, the bird is not touching anything
> else, (grounded)... but you are.
>
>

4799. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 12:09:18 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <O1vng.123149$dW3.77488@newssvr21.news.prodigy.com>
Source record: 57141

Frank Alforo wrote:
> If I touch the coil in my tuner while transmitting I get a painful rf burn.
> But a bird can perch on my antenna wire while I transmit 100 watts and it
> stays there seemingly without a care in the world. How come?

You could probably hang by one hand from a 20 kV power
line and be OK as long as you didn't complete a current
path to another wire or ground.
--
73, Cecil http://www.qsl.net/w5dxp

4800. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 12:51:28 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kFvng.123153$dW3.122145@newssvr21.news.prodigy.com>
Source record: 57142

Owen Duffy wrote:
> Search for 8010ABD100 on their home page.

It says "ready to connect to *your* coax", "RG8X <not included)"
It's not their fault if *your* coax is lossy. :-) Wonder what
kind of balun that is?
--
73, Cecil http://www.qsl.net/w5dxp

4801. Mobile - On Glass Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 13:34:19 UTC
From: "J. D. B." <duffyb01@nospamfuse.net>
Message-ID: <582fa$449e90df$d06640f9$18225@FUSE.NET>
Source record: 57143

Anyone know of a VHF/UHF antenna that can mount on the glass and then actually stay attached to the glass? I used one several years ago and on a hot summer day, it came off. It used that sticky tape which was worthless.

Duffy
www.wb8nut.com

4802. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 13:38:57 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <i8g2n3-42s.ln1@p400bob.personal.cox.net>
Source record: 57145

Hi Frank

Although ot answering your question I thought I might relate a recent experience of my own.

I remember various RF burns over the years. I never however thought I would have an issue with a 18dBm (<100mW) 11GHz TX I work on in my employment.

The fault was low output and I was doing an initial feel around with my fingertips, not actually touching an active citcuit metal but looking for excess heat. I then rested my finger on a small screwhead (maybe M2.5) that held the PCB down neear the output stripline (after the MMIC) and got enough of a burn that it felt like a static discharge spike one gets from a nylon carpet. It was a whoppa and totally unexpected!

I never did try to reason why the burn happened. The screw was loose about 2-3 turns so I am thinking a tuned cct of some kind with my finger as part of the dielectric! Oh an tighting the screw solved the low power problem!

Cheers Bob VK2YQA

Frank Alforo wrote:
> If I touch the coil in my tuner while transmitting I get a painful rf burn.
> But a bird can perch on my antenna wire while I transmit 100 watts and it
> stays there seemingly without a care in the world. How come?
>
>

4803. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 13:57:36 UTC
From: Yuri Blanarovich <K3BU@optonline.net>
Message-ID: <%Dwng.1304$Ym7.135@fe12.lga>
Source record: 57144

Two major things involved:
1. Depends where you (bird) is touching, you are prone to get more pronounced burn at the high voltage part of circuit (coil, antenna). Higher impedance point - higher voltage - easier, more burn or draw the arc. We used to light up cigarettes by keying the transmitter, touching with pencil the "hot" end of the tank coil and drawing the arc, while puffing. W8JI might argue that current/voltage is ALWAYS THE SAME along the coil, so stand by for more scientwific 'splanation :-)
Anyone trying above experiment can easily see that it is easier to draw the arc at high voltage (low current) end of coil than vice versa.

2. Depends on the area/mass (capacitance) of what is touching the RF hot part of the circuit. Fat person vs. small bird would make a big difference. If one end of the person is (capacitively) grounded, the more pronounced effect.

73
--
Yuri Blanarovich, K3BU, VE3BMV

"Frank Alforo" <falforo@dslextreme.com> wrote in message
news:129s61p92po1l17@corp.supernews.com...
> If I touch the coil in my tuner while transmitting I get a painful rf
> burn.
> But a bird can perch on my antenna wire while I transmit 100 watts and it
> stays there seemingly without a care in the world. How come?
>
>

4804. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 14:08:21 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449e9959$0$16418$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57146

the loss is unacceptable in my opinion. the lobes off the antenna are unpredictable.

an all band antenna like that is just to get on the air.

i have met Mr. Rogers several times.

Gravity

4805. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 14:11:22 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <g56t925p19oluobokmkdcek293kcun7509@4ax.com>
Source record: 57147

Your impedance is lower...

On Sat, 24 Jun 2006 21:59:11 -0700, "Frank Alforo"
<falforo@dslextreme.com> wrote:

>If I touch the coil in my tuner while transmitting I get a painful rf burn.
>But a bird can perch on my antenna wire while I transmit 100 watts and it
>stays there seemingly without a care in the world. How come?
>
John Ferrell W8CCW

4806. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 14:17:25 UTC
From: Philo <philo@nospampse.be>
Message-ID: <VVwng.502145$561.12660800@phobos.telenet-ops.be>
Source record: 57148

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:O1vng.123149$dW3.77488@newssvr21.news.prodigy.com...
> Frank Alforo wrote:
>> If I touch the coil in my tuner while transmitting I get a painful rf
>> burn.
>> But a bird can perch on my antenna wire while I transmit 100 watts and it
>> stays there seemingly without a care in the world. How come?
>
> You could probably hang by one hand from a 20 kV power
> line and be OK as long as you didn't complete a current
> path to another wire or ground.
> --
> 73, Cecil http://www.qsl.net/w5dxp

Beware of the gradient!

4807. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 14:28:20 UTC
From: Ralph Mowery <rmowery28146@earthlink.net>
Message-ID: <84xng.2094$ii.0@newsread3.news.pas.earthlink.net>
Source record: 57149

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:O1vng.123149$dW3.77488@newssvr21.news.prodigy.com...
> Frank Alforo wrote:
>> If I touch the coil in my tuner while transmitting I get a painful rf
>> burn.
>> But a bird can perch on my antenna wire while I transmit 100 watts and it
>> stays there seemingly without a care in the world. How come?
>
> You could probably hang by one hand from a 20 kV power
> line and be OK as long as you didn't complete a current
> path to another wire or ground.
> --
> 73, Cecil http://www.qsl.net/w5dxp

You should have seen the TV educational channel where in some countries they have a basket type trolley that men are put in and hung by helicopter on the multi megavolt lines. They do wear some kind of suit that is conductive so the charge will not affect their body so much.

4808. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 14:30:54 UTC
From: Mike <no@where.man>
Message-ID: <no-837487.10305425062006@news.supernews.com>
Source record: 57150
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

In article <1151106176.529709.220710@m73g2000cwd.googlegroups.com>,
"an old freind" <kb9rqz___ars@hotmail.com> wrote:

> gravity wrote:
> > > and I can send sos with spark gap off a batery without knowing anymore
> > > than that
> >
> > your engineering skill is formidable.
> possibly it is certainly more valueble the the mereknowledge of Morse
> code is without the level of engineering skill I have
>
> BTW I note myone of my double majors was Physics and a phisists can

So you majored in Physics but you can't spell Physicist? Right!

BWAHAHAHAHAHAHAHA!

Mike

4809. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 14:34:39 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449e9f84$0$16347$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57151
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> So you majored in Physics but you can't spell Physicist? Right!
>
> BWAHAHAHAHAHAHAHA!
>
> Mike

i'd like to know his area of concentration. i was not in Physics, but studied electromagnetism.

Gravity

4810. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 14:36:49 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449ea007$0$16375$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57152
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Mike" <no@where.man> wrote in message
news:no-837487.10305425062006@news.supernews.com...
> In article <1151106176.529709.220710@m73g2000cwd.googlegroups.com>,
> "an old freind" <kb9rqz___ars@hotmail.com> wrote:
>
> > gravity wrote:
> > > > and I can send sos with spark gap off a batery without knowing
anymore
> > > > than that
> > >
> > > your engineering skill is formidable.
> > possibly it is certainly more valueble the the mereknowledge of Morse
> > code is without the level of engineering skill I have
> >
> > BTW I note myone of my double majors was Physics and a phisists can
>
> So you majored in Physics but you can't spell Physicist? Right!
>
> BWAHAHAHAHAHAHAHA!

at a minimum, he would know quantum mechanics, statistical mechanics,
special relativity, electromagnetics. if he was theoretical, he studied
quantum field theory and general relativity.

PC Technician Gravity

4811. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 14:38:55 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449ea084$0$16012$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57153
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> > BTW I note myone of my double majors was Physics and a phisists can

the other major was underwater basketweaving?

Gravity

4812. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 14:58:59 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449ea538$0$16233$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57154

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:ZTCmg.55534$Lm5.1692@newssvr12.news.prodigy.com...
> Roy Lewallen wrote:
> > That's been the downfall of many a perpetual motion proponent. A
> > permanent magnet produces both a field and a force. So it must be a
> > source of energy, right?
>
> I would assume the *total* amount of energy in the magnet
> is e=mc^2.

your term ONLY includes nuclear potential energy.

at ordinary energies, your expression is the correct approximation!

Gravity

4813. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:23:43 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <3Uxng.250469$Fs1.65982@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57155

Cecil Moore wrote:
> John - KD5YI wrote:
>> Tiny points exist everywhere, all the time, whether you wish it or not.
>
> White cars exist everywhere, all the time, whether one wishes
> it or not, yet not all cars are white. To maintain that all
> cars are white when at least one is red is not logical.
>
>> Cecil, I am not going to study logic ...
>
> You should at least study enough of it to get by in this
> world. The truth is, not all cars are white.

Early in this thread "conventional accepted physics" said that corona could not exist in fairweather conditions. Now there has been a subtle change to the theme of "prove that corona occurs in more than 99.9% of all cases."

Enjoy the banter, John, but don't expect to ever get Cecil to agree on anything.

73,
Gene
W4SZ

4814. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:25:30 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1151249130.507102.67110@c74g2000cwc.googlegroups.com>
Source record: 57156
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

billy_shittydrawers_smith@yahoo.com wrote:
> an old freind wrote:
> > kb9rqz_child_molester@yahoo.com wrote:
> > > an old freind wrote:
> > > > kb9rqz_child_molester@yahoo.com wrote:
> > > > > an old friend wrote:
> > > > > > peewee_lloyd_davies@yahoo.com wrote:
> > > > > > > an old freind wrote:
> > > > > > > sex with
> > > > > > > >
> > > > > > > >
> > > > > > > > And You have sex with other man and goats, faggot!
> > > > > > > get help prevert
> > > > > >
> > > > > > Says the self admitted homosexual deviant Mark Morgan.
> > > > > no say <whaaaaaaah!>
> > > >
> > > Says the child molester Mark Morgan the queer deviant!
> > nope
> Yep says the state of Michigan aboiut child molester Mark Morgan!
if they did they know right where to find me and would have done
something by now indeed one the problems in real child molesting cases
is that the cops eagertoclose a case rush in before they have enough
eidence (or even know exactly what is going on)
get help

4815. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:26:13 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <pWxng.91970$S61.1023@edtnps90>
Source record: 57157

"gravity" <gravityzrainbow@yahoo.com> wrote in message
news:449e9959$0$16418$892e7fe2@authen.yellow.readfreenews.net...
> the loss is unacceptable in my opinion. the lobes off the antenna are
> unpredictable.
>
> an all band antenna like that is just to get on the air.
>
> i have met Mr. Rogers several times.
>
> Gravity

The antenna pattern is highly predictable using modeling software.
The transmission line losses are probably not as high as Owen predicts
since we do not know the value of the attenuator inside the balun.
I have seen at least three antennas that had attenuators in antenna matching
networks in order to meet wideband VISOR requirements. These included
a 25 ft marine whip, and a military vehicular antenna. All you need is a
3 dB pad for 3:1 VISOR.

Giving a power rating to a dipole is suspicious also; although voltage
breakdown may be a factor. Note that it is rated at 400 WE "ROMS"
-- whatever the heck that is supposed to mean.

Regards,

Frank

4816. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:29:30 UTC
From: Frank <ve6cb@nospam.telus.net>
Message-ID: <uZxng.91997$S61.76029@edtnps90>
Source record: 57158

Sorry I must have clicked spell check for VSWR not "VISOR"! Also
"W" for "WE" and "RMS" for "ROMS".

Frank

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:pWxng.91970$S61.1023@edtnps90...
> "gravity" <gravityzrainbow@yahoo.com> wrote in message
> news:449e9959$0$16418$892e7fe2@authen.yellow.readfreenews.net...
>> the loss is unacceptable in my opinion. the lobes off the antenna are
>> unpredictable.
>>
>> an all band antenna like that is just to get on the air.
>>
>> i have met Mr. Rogers several times.
>>
>> Gravity
>
> The antenna pattern is highly predictable using modeling software.
> The transmission line losses are probably not as high as Owen predicts
> since we do not know the value of the attenuator inside the balun.
> I have seen at least three antennas that had attenuators in antenna
> matching
> networks in order to meet wideband VISOR requirements. These included
> a 25 ft marine whip, and a military vehicular antenna. All you need is a
> 3 dB pad for 3:1 VISOR.
>
> Giving a power rating to a dipole is suspicious also; although voltage
> breakdown may be a factor. Note that it is rated at 400 WE "ROMS"
> -- whatever the heck that is supposed to mean.
>
> Regards,
>
> Frank
>
>
>

4817. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:34:58 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1151249698.852648.115440@c74g2000cwc.googlegroups.com>
Source record: 57159
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

gravity wrote:
> > > Typing and reading are visually based. So it makes sense that those are
> a

> code is NOT that different than a language. if you must, you can interpret
> it as tones, and simply write out the tones on a piece of paper and decode
> them.
which is espressly forbiden y the ARRL in code testing

and not allowed by most VE teams wether arrl or not, even as an ADA
acomodation
>
> Gravity

4818. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:36:34 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eae09$0$79689$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57161

> The antenna pattern is highly predictable using modeling software.

he would have to model the antenna, then figure out what beam headings he desires, then find supports for the antenna. this is IMPOSSIBLE on most sububan lots.

> The transmission line losses are probably not as high as Owen predicts
> since we do not know the value of the attenuator inside the balun.

he might as well use a dummy load.

Gravity

4819. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:38:08 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1151249888.431008.162160@p79g2000cwp.googlegroups.com>
Source record: 57160
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

gravity wrote:
> > > BTW I note myone of my double majors was Physics and a phisists can
>
> the other major was underwater basketweaving?
history

Msater degrees In Geophysics and Byzatine studies, the sadly is the
degree I have found most uslefull over the years working with
sometimes for sometimes just around the Us govt
>
> Gravity

4820. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:43:31 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eafaa$0$16418$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57162

> The antenna pattern is highly predictable using modeling software.

oh it's predictable all right, however it's often USELESS. it's a
compromise antenna relative to decent dipoles.

Gravity

4821. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:50:45 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eb15c$0$76118$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57164

PHP!

http://www.commparts.com/catalog/images/products/8010ABD.gif

i'm too lazy to provide more links.

Gravity

4822. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:52:16 UTC
From: Gerry Wheeler <gxwheeler@earthlink.net>
Message-ID: <Qiyng.1066$NP4.799@newsread1.news.pas.earthlink.net>
Source record: 57163

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:84xng.2094$ii.0@newsread3.news.pas.earthlink.net...
> You should have seen the TV educational channel where in some countries
> they have a basket type trolley that men are put in and hung by helicopter
> on the multi megavolt lines. They do wear some kind of suit that is
> conductive so the charge will not affect their body so much.

You mean these guys? http://www.haverfield.com/

--
Gerry

4823. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:54:57 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eb259$0$11193$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57165

>These included
> a 25 ft marine whip, and a military vehicular antenna. All you need is a
> 3 dB pad for 3:1 VISOR.

you can burn up 6 dB in an antenuator and RG 58. and that's if the SWR is 1
to 1.

if someone has interest in 28 mhz, just put up a rotatable dipole too.

Gravity

4824. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 15:57:34 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eb2f5$0$14626$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57166

> Giving a power rating to a dipole is suspicious also; although voltage
> breakdown may be a factor. Note that it is rated at 400 WE "ROMS"
> -- whatever the heck that is supposed to mean.

400 w RMS.
750 w peak.

Gravity

4825. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:00:14 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eb396$0$16468$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57167

check out their Windom. not bad.

http://www.eham.net/reviews/detail/5840

Gravity

4826. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:03:01 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eb43d$0$79459$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57168

> The antenna pattern is highly predictable using modeling software.
> The transmission line losses are probably not as high as Owen predicts
> since we do not know the value of the attenuator inside the balun.
> I have seen at least three antennas that had attenuators in antenna
matching
> networks in order to meet wideband VISOR requirements. These included
> a 25 ft marine whip, and a military vehicular antenna. All you need is a
> 3 dB pad for 3:1 VISOR.

ya know, an auto tuner is a fun toy. mine is a Yaesu, and when i change
frequencies it remembers the values and coax.

highly recommended but more expensive than using a decent antenna.

Gravity

4827. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:04:13 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eb485$0$16322$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57169

"Frank" <ve6cb@nospam.telus.net> wrote in message
news:uZxng.91997$S61.76029@edtnps90...
> Sorry I must have clicked spell check for VSWR not "VISOR"! Also
> "W" for "WE" and "RMS" for "ROMS".

i googled VISOR thinking it was some cool military antenna.

Gravity

4828. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:07:43 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eb55a$0$14238$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57170

> >> Cecil, I am not going to study logic ...

most Usenet discussions are very low quality due to informal fallacies.

engineers are smart in physics, but can't debate.

Gravity

4829. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:11:27 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eb637$0$11086$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57171
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> Msater degrees In Geophysics and Byzatine studies, the sadly is the
> degree I have found most uslefull over the years working with
> sometimes for sometimes just around the Us govt

that's quite impressive, must have cost you $100,000.

you should not stoop to arguing with uneducated people.

--... ...--

Gravity

4830. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:14:49 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1151252089.872547.50200@b68g2000cwa.googlegroups.com>
Source record: 57172
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

an old friend wrote:
> gravity wrote:
> > > > BTW I note myone of my double majors was Physics and a phisists can
> >
> > the other major was underwater basketweaving?
> history

Liar. You don't even have a high school education.

> Msater degrees In Geophysics and Byzatine

You can't even spell "Master's", much less have even thought about
completing the coursework requirements, you lying moron.

More Markie Bullshit, the only thing you were working as in the
government was a janitor!

4831. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:18:42 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eb7ea$0$79453$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57174
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> More Markie Bullshit, the only thing you were working as in the
> government was a janitor!
>

janitors at the NSA have clearance.

they probably get paid well.

Gravity

4832. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:20:10 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449eb842$0$76118$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57175
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

> You can't even spell "Master's", much less have even thought about
> completing the coursework requirements

it is suspicious since he misspelled Byzantine.

i sometimes misspell technical terms, but i can still spell "engineering".

Gravity

4833. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:20:42 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1151252442.622050.22440@c74g2000cwc.googlegroups.com>
Source record: 57173
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

```
an old freind wrote:
> billy_shittydrawers_smith@yahoo.com wrote:
> > an old freind wrote:
> > > kb9rqz_child_molester@yahoo.com wrote:
> > > > an old freind wrote:
> > > > > kb9rqz_child_molester@yahoo.com wrote:
> > > > > > an old friend wrote:
> > > > > > > peewee_lloyd_davies@yahoo.com wrote:
> > > > > > > > an old freind wrote:
> > > > > > > > sex with
> > > > > > > > >
> > > > > > > > >
> > > > > > > > > And You have sex with other man and goats, faggot!
> > > > > > > > get help prevert
> > > > > > > >
> > > > > > > Says the self admitted homosexual deviant Mark Morgan.
> > > > > > no say <whaaaaaaah!>
> > > > > >
> > > > > Says the child molester Mark Morgan the queer deviant!
> > > nope
> > Yep says the state of Michigan aboiut child molester Mark Morgan!
> if they did they know right

Yes they know all about you, child molester Morgan.
```

4834. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:24:56 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <sNyng.28670$VE1.26075@newssvr14.news.prodigy.com>
Source record: 57076

Gene Fuller wrote:
> Early in this thread "conventional accepted physics" said that corona
> could not exist in fairweather conditions.

Actually, I said my references indicated that, but
that's past history. I later fine-tuned that concept
to "Corona cannot exist without an extra energy source
besides the fairweather current." Remember - moving
airplanes, etc? Please try to keep up. When I am wrong,
I immediately correct my error. That's the scientific
method in action.

My assertion is that charged particle noise can exist
without corona and that is most probably under fairweather
conditions.

I suggest that you and others review the logical difference
between exclusive statements and inclusive statements.

Exclusive statement: Charged particle noise cannot exist
without corona. A mostly meaningless statement since it
is virtually impossible to prove. Your side has been
asserting these types of exclusive statements.

Inclusive statement: Charged particle noise can exist
without corona. Easy to prove since it only requires
one example.
--
73, Cecil http://www.qsl.net/w5dxp

4835. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:27:09 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1151252829.001670.88470@p79g2000cwp.googlegroups.com>
Source record: 57077
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

gravity wrote:
> > More Markie Bullshit, the only thing you were working as in the
> > government was a janitor!
> >
>
> janitors at the NSA have clearance.
>
> they probably get paid well.

LOL!!!!!!

4836. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:28:54 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <aRyng.28671$VE1.26313@newssvr14.news.prodigy.com>
Source record: 57078

gravity wrote:
>>>> Cecil, I am not going to study logic ...
>
> most Usenet discussions are very low quality due to informal fallacies.
> engineers are smart in physics, but can't debate.

Especially when they don't understand the difference
between "exclusive" and "inclusive".
--
73, Cecil http://www.qsl.net/w5dxp

4837. Re: Elimination of CW is a loss in the number of ways we can communicate with other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:31:59 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1151253119.882289.215700@y41g2000cwy.googlegroups.com>
Source record: 57079
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

gravity wrote:
> > You can't even spell "Master's", much less have even thought about
> > completing the coursework requirements
>
> it is suspicious since he misspelled Byzantine.

Yep. Markie is more interested in "Greek Style" then Medieval Greek
Emperors.

Here's a starting point for you, Markie the imbecile:
http://en.wikipedia.org/wiki/Byzantine

> i sometimes misspell technical terms, but i can still spell "engineering".

And he claims he isn't illiterate!

Markie Morgan, idiot shatters the irony meter when he pegged it when it
was suggested he take a remedial English course for his illiteracy in
<1150559315.854057.26550@p79g2000cwp.googlegroups.com>:
"no illeteracy it is plain to see that"

4838. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:35:04 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449ebbc3$0$15765$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57080
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

rare photo of the secretive "old friend".

http://www.commondreams.org/headlines05/images/0628-01.jpg

4839. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 16:43:28 UTC
From: kb9rqz_child_molester@yahoo.com
Message-ID: <1151253808.783942.207750@u72g2000cwu.googlegroups.com>
Source record: 57081
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

gravity wrote:
> rare photo of the secretive "old friend".
>
> http://www.commondreams.org/headlines05/images/0628-01.jpg

lol!!!!!!!!!! He's a real "James Bond"....not!

4840. Re: Mobile - On Glass Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 17:00:57 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <129tgaacqdkpa3f@corp.supernews.com>
Source record: 57082

J. D. B. wrote:
> Anyone know of a VHF/UHF antenna that can mount on the glass and then
> actually stay attached to the glass? I used one several years ago and
> on a hot summer day, it came off. It used that sticky tape which was
> worthless.
>
> Duffy
> www.wb8nut.com

Try super glue.

Dave WD9BDZ

4841. Re: a pic of the tard

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 17:03:50 UTC
From: Lloyd the loser <Davies@lardass.com>
Message-ID: <449eb4ac$0$9932$88260bb3@free.teranews.com>
Source record: 57083
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

A real pic of cock gobbler markie tard right before he swaps his she-male
wife with a transvestite......

http://img85.imageshack.us/img85/9794/markmorgan4ha.jpg

,
"gravity" <gravityzrainbow@yahoo.com> wrote in message
news:449ebbc3$0$15765$892e7fe2@authen.yellow.readfreenews.net...
> rare photo of the secretive "old friend".
>
> http://www.commondreams.org/headlines05/images/0628-01.jpg
>
>

--
Posted via a free Usenet account from http://www.teranews.com

4842. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 17:22:22 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <iDzng.2870$Wh.2254@trnddc04>
Source record: 57084

Gene Fuller wrote:

>
> Enjoy the banter, John, but don't expect to ever get Cecil to agree on
> anything.
>
> 73,
> Gene
> W4SZ

Well, thanks, Gene, but I don't really enjoy debating. He will believe whatever he wants, whether it is right or wrong. The world will not be moved by it in either case.

73,
John

4843. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 17:54:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <v5Ang.56440$Lm5.3276@newssvr12.news.prodigy.com>
Source record: 57085

John - KD5YI wrote:
> He will believe
> whatever he wants, whether it is right or wrong.

I will believe what the technical evidence indicates.
But who knows, there may actually be a Corona God up
there somewhere in control of all antenna noise.
--
73, Cecil http://www.qsl.net/w5dxp

4844. Re: Mobile - On Glass Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 18:25:14 UTC
From: "g. beat"
Message-ID: <_rWdndX2JMWSSAPZnZ2dnUVZ_vqdnZ2d@comcast.com>
Source record: 57086

"J. D. B." <duffyb01@nospamfuse.net> wrote in message
news:582fa$449e90df$d06640f9$18225@FUSE.NET...
>
> Anyone know of a VHF/UHF antenna that can mount on the glass and then
> actually stay attached to the glass? I used one several years ago and on
> a hot summer day, it came off. It used that sticky tape which was
> worthless.
>

On-Glass mounts work quite well - HOWEVER Antenna Specialists (Cleveland based) - who has the trademark (and patents) for On-Glass antennas -- had significant problems with southern US installers -- who installed these antennas in high humidity environments (often outdoors).

I have installed mine on 3 different automobiles - since 1986 - NONE have fallen off after 200,000 + miles ... and I have hit tree limbs, car washes, etc. The aerial may have been bent - but the mount held.

They had an entire web page (old web site) to address the proper installation, etc.
They actually specified to southern installers to perform these installations in air conditioned bays (with the rest of the radio install).

"Copy cat" imported products also flooded the market -- with no instructions or real understanding of the correct mounting techniques - many consumers / installers were obvious to these differences. "OnGlass mounts are bad". "I had a bad experience", etc.
http://www.antenna.com/product_overview_detail.cgi?id_num=10418&styleid=6

Just another version of the Bad Capacitor situation -- buy and select for price (with no understanding of the fundamentals) - because they all look the same.
http://www.badcaps.net/causes/

PCTEL in Chicago purchased Antenna Specialists a few years ago.
http://antenna.pctel.com/

w9gb

4845. get ehelp

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 19:42:36 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1151264556.651418.62260@b68g2000cwa.googlegroups.com>
Source record: 57087
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Lloyd the loser wrote:
> A real pic of cock gobbler markie tard right before he swaps his she-male
> wife with a transvestite......
>
> http://img85.imageshack.us/img85/9794/markmorgan4ha.jpg
again why are you harassing Gordon west

4846. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 19:54:06 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1151265246.856978.60720@i40g2000cwc.googlegroups.com>
Source record: 57088
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

markie_morgan_rapesboys@yahoo.com wrote:
get help sicko
> > > Yep says the state of Michigan aboiut child molester Mark Morgan!
> > if they did they know right
>
> Yes they know all about you, child molester Morgan.
realy and yet I have never been aressted or charged let alone tired on
such charge either I am very good at covering my track or it never
happened

It is clear you need to believe this filth that si why you need to get
help

4847. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 20:06:20 UTC
From: RHF <rhf-newsgroups@pacbell.net>
Message-ID: <1151265980.000566.192070@u72g2000cwu.googlegroups.com>
Source record: 57089
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"G" - Don't Argue with a Donkey {Ass} - - - Why - - -
It does you no good and makes the Donkey Mad !

i have often been called a donkey ;-) ~ RHF
.
.
. .

gravity wrote:
> > Msater degrees In Geophysics and Byzatine studies, the sadly is the
> > degree I have found most uslefull over the years working with
> > sometimes for sometimes just around the Us govt
>
> that's quite impressive, must have cost you $100,000.
>
> you should not stoop to arguing with uneducated people.
>
> --... ...--
>
> Gravity

4848. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 20:18:50 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1151266730.080413.179680@i40g2000cwc.googlegroups.com>
Source record: 57090
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

gravity wrote:
> > Msater degrees In Geophysics and Byzatine studies, the sadly is the
> > degree I have found most uslefull over the years working with
> > sometimes for sometimes just around the Us govt
>
> that's quite impressive, must have cost you $100,000.
are you kidding if it had I never would have been able to pay it

Had a a full scholarship for 4 years of my undergrad the Gi Bill
gracously paid for the rest of it
>
> you should not stoop to arguing with uneducated people.
argueing no simply countering the dangerous sort of libel that builds
up if not answered to under "if there is smoke there is fire" theory

sinc e after Wismen worked himself into a frenzy abotu me resulting
inhim posting some body else address and and the all the false claims
he makes about resulted in some being beaten to a pulp just for sharing
the name "Mark Morgan" I decided it was msitake not to adress such
libel can't say I have worked out an espgood method but it imporeves
withpractice

>
> --... ...--
>
> Gravity

4849. Re: Mobile - On Glass Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 20:22:16 UTC
From: "J. Kragh" <jgkragh_remove_@mil.dk>
Message-ID: <449ef07b$0$90478$edfadb0f@dread11.news.tele.dk>
Source record: 57091

Hi

In Europe the outside parts are normally glued to the glass using a silicone adhesive.The sticky tape is only used on the inside. I have succesfully remounted 2 metre antennas using silicone adhesive. Use an adhesive intended for wet environments (e.g. intended for caulking bathrooms or aquariums).

vy 73

Joergen, OZ7TA

"J. D. B." <duffyb01@nospamfuse.net> skrev i en meddelelse news:582fa$449e90df$d06640f9$18225@FUSE.NET...
> Anyone know of a VHF/UHF antenna that can mount on the glass and then
> actually stay attached to the glass? I used one several years ago and on
> a hot summer day, it came off. It used that sticky tape which was
> worthless.
>
> Duffy
> www.wb8nut.com

4850. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 20:39:28 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <4cmdnSdddae3aAPZRVnyhw@bt.com>
Source record: 57092

It's the current which matters.

The bird has a capacitance to the rest of the world which depends on its size. The current which flows up the bird's legs is the voltage on the antenna divided by the capacitive reactance of the bird's body. For small birds the capacitance is only a few picofarads and so the current is extremely small. The bird continues to sing its happy song.

Whereas, a human body not only has a much larger capacitance it may also complete the circuit by having the other hand in contact with grounded metal work. Or the victim might be standing in his bare feet. The current due to capacitance of the human body alone is enough to cause burns. The pain is sufficient to stop the human from singing and begin using bad language.

Reg.

4851. Re: Mobile - On Glass Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 21:29:49 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <hfDng.28844$VE1.20879@newssvr14.news.prodigy.com>
Source record: 57093

J. Kragh wrote:
> Use an adhesive intended for wet environments

I'll bet the adhesive used for repairing wetsuits
would work well.
--
73, Cecil http://www.qsl.net/w5dxp

4852. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 21:36:17 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <llDng.28846$VE1.12126@newssvr14.news.prodigy.com>
Source record: 57094

Reg Edwards wrote:
> It's the current which matters.
>
> The bird has a capacitance to the rest of the world which depends on
> its size. The current which flows up the bird's legs is the voltage on
> the antenna divided by the capacitive reactance of the bird's body.
> For small birds the capacitance is only a few picofarads and so the
> current is extremely small. The bird continues to sing its happy
> song.

I did surprise an Owl one night sitting astride my Inv-V
center insulator. He was apparently touching both dipole
wires when I went key down with 100 watts.
--
73, Cecil http://www.qsl.net/w5dxp

4853. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 22:10:02 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449f0a48$0$64670$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57096

> Frank, in the absence of information on the balun, I did model it as
> ideal, and that the load at the load end of the coax was 4200 ohms.
> That is probably a reasonable assumption.

i dunno it's a 1:1 Balun.

i might email them, cause threads like this are pure profit for them.

Gravity

4854. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 22:10:45 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <or0u921vltnpqfm7bpc2m4dif174h9ui1u@4ax.com>
Source record: 57095

On Sun, 25 Jun 2006 15:26:13 GMT, "Frank" <ve6cb@nospam.telus.net>
wrote:

>The antenna pattern is highly predictable using modeling software.
>The transmission line losses are probably not as high as Owen predicts
>since we do not know the value of the attenuator inside the balun.

That implies there is an attenuator inside the balun. I don't believe
we actually have any information with which to better understand the
balun.

Frank, in the absence of information on the balun, I did model it as
ideal, and that the load at the load end of the coax was 4200 ohms.
That is probably a reasonable assumption.

A real balun would not perfectly isolate the transmission line from
drive so influencing feed point impedance , and would probably
transform the real feed point impedance to something different to 4200
ohms, and so the line losses could be different (better or worse).

If the balun was built with substantial loss, it would tend to reduce
line losses, and yes, 3dB of loss (which would affect performance on
all bands), would improve the performance on 7MHz (though that balun
doesn't look like it contains a 200W dissipater).

All in all, the configuration, although used widely, can be expected
to perform poorly. IMHO tomk3mov@yahoo.com was right in being
suspicious of the product claims.

Owen
--

4855. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 22:50:14 UTC
From: Butch Magee <lynyrd@cableone.net>
Message-ID: <129u4p8hqmeok3e@corp.supernews.com>
Source record: 57097

Ralph Mowery wrote:
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:O1vng.123149$dW3.77488@newssvr21.news.prodigy.com...
>
>>Frank Alforo wrote:
>>
>>>If I touch the coil in my tuner while transmitting I get a painful rf
>>>burn.
>>>But a bird can perch on my antenna wire while I transmit 100 watts and it
>>>stays there seemingly without a care in the world. How come?
>>
>>You could probably hang by one hand from a 20 kV power
>>line and be OK as long as you didn't complete a current
>>path to another wire or ground.
>>--
>>73, Cecil http://www.qsl.net/w5dxp
>
>
> You should have seen the TV educational channel where in some countries they
> have a basket type trolley that men are put in and hung by helicopter on the
> multi megavolt lines. They do wear some kind of suit that is conductive so
> the charge will not affect their body so much.
>
>
They ;do that in this country. Mesh suit of some metal, can't remember
which metal but not important as long as it's conductive I guess.
Great job I bet, big bucks....

4856. Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 23:20:58 UTC
From: sbusono@gmail.com
Message-ID: <1151277657.955753.186840@y41g2000cwy.googlegroups.com>
Source record: 57098

Hi fellow amateurs,
I am using 746Pro for 6M with direct coax to my 5 el antenna. I used to get 1:1 SWR but recently, the SWR runs a little over 1:2 and my output drops to 30W.When stations in FN20 were working EU, I could hear nothing. My signal can still be received because I was able to make contacts despite 1:2 SWR as far as FM5AA. But I know something is wrong with the line or the antenna. I checked all the connections and they seemed to be ok.

Can someone help by directing me to a source where I can read about troubleshooting transmission line? Or can someone who has experience in this give me step by step instruction on how to diagnose the problem, e.g., is it the PL 259 at the rig side, or the antenna side, or somewhere along the line, or is it the antenna altogether. I have an ohm meter and a small swr/pwr meter box.
Thanks in advance.

73, steve

4857. Re: Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 23:44:17 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <f8qdnZGn9v9SggLZnZ2dnUVZ_oidnZ2d@comcast.com>
Source record: 57099

sbusono@gmail.com wrote:

> Hi fellow amateurs,
> I am using 746Pro for 6M with direct coax to my 5 el antenna. I used to
> get 1:1 SWR but recently, the SWR runs a little over 1:2 and my output
> drops to 30W.When stations in FN20 were working EU, I could hear
> nothing. My signal can still be received because I was able to make
> contacts despite 1:2 SWR as far as FM5AA. But I know something is wrong
> with the line or the antenna. I checked all the connections and they
> seemed to be ok.
>
> Can someone help by directing me to a source where I can read about
> troubleshooting transmission line? Or can someone who has experience in
> this give me step by step instruction on how to diagnose the problem,
> e.g., is it the PL 259 at the rig side, or the antenna side, or
> somewhere along the line, or is it the antenna altogether. I have an
> ohm meter and a small swr/pwr meter box.
> Thanks in advance.
>
> 73, steve

Steve, If you can locate someone who owns an antenna analyzer you should be able to analyze your problem. I use the MFJ 259B.

Someone in your local radio club should own one, antenna analyzer, or have access to one.

BTW, a 2:1 VSWR is not BAD. It indicates that the antenna is receiving 90% of the available power. However, ICOMs are designed to power down on low to moderate VSWR. Note: I run about 30:1 on 75 meters.

4858. Re: Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-25 23:59:08 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449f23db$0$79453$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57100

"Dave" <W1MCE@comcast.net> wrote in message
news:f8qdnZGn9v9SggLZnZ2dnUVZ_oidnZ2d@comcast.com...
> sbusono@gmail.com wrote:
>
> > Hi fellow amateurs,
> > I am using 746Pro for 6M with direct coax to my 5 el antenna. I used to
> > get 1:1 SWR but recently, the SWR runs a little over 1:2 and my output
> > drops to 30W.When stations in FN20 were working EU, I could hear
> > nothing. My signal can still be received because I was able to make
> > contacts despite 1:2 SWR as far as FM5AA. But I know something is wrong
> > with the line or the antenna. I checked all the connections and they
> > seemed to be ok.
> >
> > Can someone help by directing me to a source where I can read about
> > troubleshooting transmission line? Or can someone who has experience in
> > this give me step by step instruction on how to diagnose the problem,
> > e.g., is it the PL 259 at the rig side, or the antenna side, or
> > somewhere along the line, or is it the antenna altogether. I have an
> > ohm meter and a small swr/pwr meter box.
> > Thanks in advance.
> >
> > 73, steve
>
> Steve, If you can locate someone who owns an antenna analyzer you should
be able
> to analyze your problem. I use the MFJ 259B.
>
> Someone in your local radio club should own one, antenna analyzer, or have
> access to one.
>
> BTW, a 2:1 VSWR is not BAD. It indicates that the antenna is receiving 90%
of
> the available power. However, ICOMs are designed to power down on low to
> moderate VSWR. Note: I run about 30:1 on 75 meters.
>

what about coax losses at that VSWR?

4859. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 00:08:48 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ar8u92d1j4oklj6ulp57b545hss5a9bu5h@4ax.com>
Source record: 57101

On Sat, 24 Jun 2006 22:19:43 -0400, Dave <W1MCE@comcast.net> wrote:

>I get product not found!!
>
>Is the URL complete?

Googling indicates that several domains are directed to this eCommerce website, including jeanshobbies.com, amateurradio.org, buxomm.com, commparts.com, packetradio.com.

Did someone say this guy is an Elmer? Looks like he runs a business with a lot of front doors.

Owen
--

4860. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 00:37:05 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <R_Fng.625$RD.554@fed1read08>
Source record: 57102

"Dave" <noone@nowhere.com> wrote in message
news:kJKdnV2QOYIJ_wPZnZ2dnUVZ_qCdnZ2d@crocker.com...
> even if you aren't touching something you have a much larger surface area
to
> act as a capacitive path to ground for the rf.

< snip >

Yes. One of the standard tools used during RADHAZ inspectiions at RF transmitters sites is an RF Burn Gun. (It's shaped like a gun for convenience of holding and use.) It measures the RF potential on metallic structures near a transmit antenna and the tech is part of the circuit, coupling to ground. Current limiting in the RF Burn Gun keeps the tech from harm while he reads the potential off a meter in the "gun."

It strikes me that the measurement accuracy varies with operating frequency and size of the tech (via collective X-sub-C). With my big butt and short legs, I might offer more coupling to ground than you scrawny people.

4861. Re: Mobile - On Glass Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 00:45:24 UTC
From: "g. beat"
Message-ID: <WfadnQ4Ti7y3swLZnZ2dnUVZ_tqdnZ2d@comcast.com>
Source record: 57103

"J. D. B." <duffyb01@nospamfuse.net> wrote in message
news:582fa$449e90df$d06640f9$18225@FUSE.NET...
> Anyone know of a VHF/UHF antenna that can mount on the glass and then
> actually stay attached to the glass? I used one several years ago and on
> a hot summer day, it came off. It used that sticky tape which was
> worthless.
>
> Duffy
> www.wb8nut.com

On-Glass Reinstallation kits and coupling boxes.
http://205.234.153.66/images_product_overview/pdf_docs/reinstallationkit_p496.pdf

While the tape is part of the solution - the KEY step is the silicon
adhesive.

SOME automobiles are not appropriate due to tinting, special glazing used -
contact PCTEL A/S for details.

g. beat

4862. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 00:49:09 UTC
From: Frank's <frank599@nospam.telus.net>
Message-ID: <9aGng.79980$I61.26846@clgrps13>
Source record: 57104

"Owen Duffy" <owen@no.where> wrote in message
news:or0u921vltnpqfm7bpc2m4dif174h9ui1u@4ax.com...
> On Sun, 25 Jun 2006 15:26:13 GMT, "Frank" <ve6cb@nospam.telus.net>
> wrote:
>
>
>>The antenna pattern is highly predictable using modeling software.
>>The transmission line losses are probably not as high as Owen predicts
>>since we do not know the value of the attenuator inside the balun.
>
> That implies there is an attenuator inside the balun. I don't believe
> we actually have any information with which to better understand the
> balun.
>
> Frank, in the absence of information on the balun, I did model it as
> ideal, and that the load at the load end of the coax was 4200 ohms.
> That is probably a reasonable assumption.
>
> A real balun would not perfectly isolate the transmission line from
> drive so influencing feed point impedance , and would probably
> transform the real feed point impedance to something different to 4200
> ohms, and so the line losses could be different (better or worse).
>
> If the balun was built with substantial loss, it would tend to reduce
> line losses, and yes, 3dB of loss (which would affect performance on
> all bands), would improve the performance on 7MHz (though that balun
> doesn't look like it contains a 200W dissipater).
>
> All in all, the configuration, although used widely, can be expected
> to perform poorly. IMHO tomk3mov@yahoo.com was right in being
> suspicious of the product claims.
>
> Owen

I am inclined to agree with you Owen. I was being a little facetious
about the load. I also noticed there is not a single specification on the
web site, except for power ratings. (Including the irritating term
"RMS power"). Incidentally 750 W into 4200 ohms represents
2.5 kV peak. If the balun is a real transformer it must be well
insulated.

Frank

4863. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 00:59:10 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449f31ef$0$16401$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57105

"Owen Duffy" <owen@no.where> wrote in message
news:ar8u92d1j4oklj6ulp57b545hss5a9bu5h@4ax.com...
> On Sat, 24 Jun 2006 22:19:43 -0400, Dave <W1MCE@comcast.net> wrote:
>
> >I get product not found!!
> >
> >Is the URL complete?
>
> Googling indicates that several domains are directed to this eCommerce
> website, including jeanshobbies.com, amateurradio.org, buxomm.com,
> commparts.com, packetradio.com.
>
> Did someone say this guy is an Elmer? Looks like he runs a business
> with a lot of front doors.

it appears that buxcomm is owned or operated by K4ABT. i have talked to him
several times.

he has a lot of history in the ham community.

Gravity

4864. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 00:59:38 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <449f320a$0$11186$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57106

> >I get product not found!!
> >
> >Is the URL complete?

it uses PHP and a link won't work.

Gravity

4865. Re: Mobile - On Glass Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 01:05:46 UTC
From: Dale Parfitt <par@parelectronics.com>
Message-ID: <KpGng.4161$Tk.2933@trnddc08>
Source record: 57107

"David G. Nagel" <nagel@core.com> wrote in message
news:129tgaacqdkpa3f@corp.supernews.com...
> J. D. B. wrote:
>> Anyone know of a VHF/UHF antenna that can mount on the glass and then
>> actually stay attached to the glass? I used one several years ago and on
>> a hot summer day, it came off. It used that sticky tape which was
>> worthless.
>>
>> Duffy
>> www.wb8nut.com
>
>
> Try super glue.
>
> Dave WD9BDZ

Super Glue will not stand up outdoors- maybe 2 weeks- but the real problem
is that it is so rigid that it will likely crack windshield glass (not rear
window) because the rate of expansion/contraction of the mounting foot is
different for that of the windshield glass.
The makers of the rear view mirror button and cement went to a great deal of
trouble to ensure that the scintered metal foot and the anaerobic cement
both had the same coefficient of expansion as the windshield glass.

Dale W4OP

4866. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 01:09:21 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <5tGng.626$RD.358@fed1read08>
Source record: 57108
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"gravity" <gravityzrainbow@yahoo.com> wrote in message
news:449eb7ea$0$79453$892e7fe2@authen.yellow.readfreenews.net...
>
> > More Markie Bullshit, the only thing you were working as in the
> > government was a janitor!
> >
>
> janitors at the NSA have clearance.
>
> they probably get paid well.

Of all the techie things I could relate to, here's something I never thought would come up: I WAS a janitor at NSA. I was stationed there 1970-1972 as a Sailor and during my last 8 months, I worked as a janitor after hours to make enough money for the down payment on my first house. All the janitors needed to be cleared, which made us military folks shoo-ins for these jobs.

The pay was OK for your average part time job. Nothing special, but I was happy for the $1800 I banked in less than a year. (5% of 33,000 used to get a family into a house. Not today.)

My first wife still has that house and it's worth $700,000.

4867. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 01:44:31 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <OKmdnUIgWvtgpgLZnZ2dnUVZ_sadnZ2d@comcast.com>
Source record: 57109
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

What's she worth??

Sal M. Onella wrote:

> "gravity" <gravityzrainbow@yahoo.com> wrote in message
> news:449eb7ea$0$79453$892e7fe2@authen.yellow.readfreenews.net...
>
>>>More Markie Bullshit, the only thing you were working as in the
>>>government was a janitor!
>>>
>>
>>janitors at the NSA have clearance.
>>
>>they probably get paid well.
>
>
> Of all the techie things I could relate to, here's something I never thought
> would come up: I WAS a janitor at NSA. I was stationed there 1970-1972 as a
> Sailor and during my last 8 months, I worked as a janitor after hours to
> make enough money for the down payment on my first house. All the janitors
> needed to be cleared, which made us military folks shoo-ins for these jobs.
>
> The pay was OK for your average part time job. Nothing special, but I was
> happy for the $1800 I banked in less than a year. (5% of 33,000 used to get
> a family into a house. Not today.)
>
> My first wife still has that house and it's worth $700,000.
>
>

4868. Re: Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 01:49:59 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <E8-dnTeA2_3YoALZnZ2dnUVZ_uWdnZ2d@comcast.com>
Source record: 57110

gravity wrote:

> "Dave" <W1MCE@comcast.net> wrote in message
> news:f8qdnZGn9v9SggLZnZ2dnUVZ_oidnZ2d@comcast.com...
>
>>sbusono@gmail.com wrote:
>>
>>
>>>Hi fellow amateurs,
>>>I am using 746Pro for 6M with direct coax to my 5 el antenna. I used to
>>>get 1:1 SWR but recently, the SWR runs a little over 1:2 and my output
>>>drops to 30W.When stations in FN20 were working EU, I could hear
>>>nothing. My signal can still be received because I was able to make
>>>contacts despite 1:2 SWR as far as FM5AA. But I know something is wrong
>>>with the line or the antenna. I checked all the connections and they
>>>seemed to be ok.
>>>
>>>Can someone help by directing me to a source where I can read about
>>>troubleshooting transmission line? Or can someone who has experience in
>>>this give me step by step instruction on how to diagnose the problem,
>>>e.g., is it the PL 259 at the rig side, or the antenna side, or
>>>somewhere along the line, or is it the antenna altogether. I have an
>>>ohm meter and a small swr/pwr meter box.
>>>Thanks in advance.
>>>
>>>73, steve
>>
>>Steve, If you can locate someone who owns an antenna analyzer you should
>
> be able
>
>>to analyze your problem. I use the MFJ 259B.
>>
>>Someone in your local radio club should own one, antenna analyzer, or have
>>access to one.
>>
>>BTW, a 2:1 VSWR is not BAD. It indicates that the antenna is receiving 90%
>
> of
>
>>the available power. However, ICOMs are designed to power down on low to
>>moderate VSWR. Note: I run about 30:1 on 75 meters.
>>
>

>
> what about coax losses at that VSWR?
>
>

What coax?? I didn't say I used coax. I said I run about 30:1 VSWR on 75 meters.

I use 600 ohm open wire tuned feeders. My TL Loss, approximately 150 feet, is measured at slightly over 1 dB. I've been a ham since before coax became commonly used. <g>

4869. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 02:12:11 UTC
From: Dan Richardson <k6mhe>
Message-ID: <c4gu92hmjlgt6c93umuei0cb4n67tgnvmi@4ax.com>
Source record: 57111

On Mon, 26 Jun 2006 00:08:48 GMT, Owen Duffy <owen@no.where> wrote:

>Did someone say this guy is an Elmer? Looks like he runs a business
>with a lot of front doors.

Hi Owen,

Buck wrote a column in CQ magazine for awhile a few years back and abruptly left. Don't know the reason, but I did read some of his writings and some were just plain nonsense. For example he advised his readers that they needed to tune their transmission line if they wanted the antenna to work properly. After a few like that I just stopped reading his stuff.

By the looks of his antenna advertisements I made the right decision.

73,
Danny,
K6MHE

4870. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 02:17:49 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <htHng.8138$WI.3150@trnddc01>
Source record: 57112

Buck wrote:
> On Mon, 19 Jun 2006 19:35:37 -0500, Butch Magee <lynyrd@cableone.net>
> wrote:
>
>
>>gravity wrote:
>
>
>>>the general rule is L = 234/F, where F is the frequency in megahertz, and L
>>>is the length of a quarter wave element in feet.
>>>
>>>this is a strange troll, can't you come up with something better?
>>>
>>>Gravity
>>>
>>>
>>
>>The formula, which I learned as a novice, I think, is length is=468/f(in
>>mHz)
>
>
>
> Read the text carefully, he is talking about each of the two 1/4 wave
> elements that make up a half wave dipole.
>
> BTW, what is 468/2 ???

According to my calculator, it is 234.

4871. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 03:13:25 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <phju92dic9h0utepobh36vb0965t3gvh90@4ax.com>
Source record: 57113

On Mon, 26 Jun 2006 00:49:09 GMT, "Frank's"
<frank599@nospam.telus.net> wrote:

>"RMS power"). Incidentally 750 W into 4200 ohms represents
>2.5 kV peak. If the balun is a real transformer it must be well
>insulated.

... and if it is a "voltage balun", a much higher flux level (~1300%)
than it would at 50 ohms.

Considering the information given in the product data, it leaves one
with doubts about the suitability of the recommended coax and the
supplied balun, and the performance of the entire system.

Owen
--

4872. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 03:27:59 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <3vIng.636$RD.54@fed1read08>
Source record: 57114
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Dave" <W1MCE@comcast.net> wrote in message
news:OKmdnUIgWvtgpgLZnZ2dnUVZ_sadnZ2d@comcast.com...
> What's she worth??

Try offering two outfielders and a pitcher to be named later :-)

Seriously, other than her half of the house (her current hubby got on the deed a few years ago for a re-fi), almost nothing. I divorced her in 1981 and traded away my half of the equity for no claim by her on my future earnings (meaning no spousal support and no splitting of my Navy retirement). She took a second to buy a business, which supported her, although she did not run it well and she took a loss when she sold it.

I doubt she ever saved a penny. She draws a Social Security disability pension for several ailments, real or imagined.

I fared better ;-)

>
> Sal M. Onella wrote:
>

< snip >

> >
> > My first wife still has that house and it's worth $700,000.
> >
> >
>

4873. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 10:49:01 UTC
From: KC1DI <davekc1di@gmail.net>
Message-ID: <e7odqb$h92$1@nntp.aioe.org>
Source record: 57115

tomk3mov@yahoo.com wrote:
> The BuxComm Antenna Company sells what it calls an All Band Coax-fed
> Dipole.
>
> http://www.commparts.com/catalog/product_info.php?cPath=9&products_id=114318&osCsid=a84f
7ccef1c8c9d59effad91005875fb
>
>
> It consists of 135 ft. of wire, a balun at the center feed point, and
> the RG 8X coax transmission line. I don't claim to know a whole lot
> about antennas, but this configuration is contrary to everything that I
> have read about feeding mutiband antennas. When I wrote to the company
> with a question about this, I received a response from K4ABT, Buck
> Rogers himself. He attached to his note a section from the ARRL Antenna
> Book, which seems to indicate that coax should not be used with this
> type of antenna if one wants to use it as a multibander. I have a lot
> of respect for Buck, based on his years of Elmering a lot of us through
> his articles. But this one has me stumped. Any input will be
> appreciated.
>

My opinion would be that you'd be much better off if you want a single
wire antenna fed with coax going with one of the off center fed models.
the SWR is much better on many bands than the center fed model.

But if you must have a center fed model then you'll need to feed
it with open wire line of some sort .. coax just is not going to perform
well for you in a single wire all band dublet. the Losses on most bands
are not good.

73 Dave kc1di

4874. Marqueer makes good spell: get ehelp

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 11:09:43 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1151320183.269746.38540@m73g2000cwd.googlegroups.com>
Source record: 57116
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

an old friend wrote:
> Lloyd the loser wrote:
> > A real pic of cock gobbler markie tard right before he swaps his she-male
> > wife with a transvestite......
> >
> > http://img85.imageshack.us/img85/9794/markmorgan4ha.jpg
> again why are you harassing Gordon west

So it IS you in that picture, faggot!

4875. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 11:12:26 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1151320346.632894.294300@c74g2000cwc.googlegroups.com>
Source record: 57117
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

an old freind wrote:
> gravity wrote:
> > > Msater degrees In Geophysics and Byzatine studies, the sadly is the
> > > degree I have found most uslefull over the years working with
> > > sometimes for sometimes just around the Us govt
> >
> > that's quite impressive, must have cost you $100,000.
> are you kidding if it had I never would have been able to pay it

Markie admits he has about $100 to his name!

> Had a a full scholarship for 4 years of my undergrad the Gi Bill
> gracously paid for the rest of it

Liar, you never made it to college!

> >
> > you should not stoop to arguing with uneducated people.
> argueing no simply countering the dangerous sort of libel that builds
> up if not answered to under "if there is smoke there is fire" theory

Yeah, since you can't argue worth a shit, much like you can't do
anything else worth a shit, you useless bastard.

> sinc e after Wismen <lies & bullshit>

Marqueer, the only one beaten to a pulp is you, but you are too fucking
stupid to realize it.

4876. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 11:36:45 UTC
From: kb9rqz_child_molester@yahoo.com
Message-ID: <1151321804.956803.163060@u72g2000cwu.googlegroups.com>
Source record: 57118
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

an old friend wrote:
> markie_morgan_rapesboys@yahoo.com wrote:
> get help sicko
> > > > Yep says the state of Michigan aboiut child molester Mark Morgan!
> > > if they did they know right
> >
> > Yes they know all about you, child molester Morgan.
> realy and yet I have never been aressted or charged

Liar.

> It is clear you <IKYABWAI>

It is also clear that you are a lying fool.

4877. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 12:43:47 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <DcSdnYfCMseoSgLZnZ2dnUVZ8s2dnZ2d@bt.com>
Source record: 57119

There's too much fuss made about resonant length of simple wire antennas.

(1) Radiating efficiency is hardly affected by being as much as 20 or 30 percent off-resonance in terms of antenna length.

(2) The feedpoint resistance at resonance may indeed provide the theoretical correct termination for the transmission line for 1-to-1 SWR in the middle of an amateur band. But it is way off resonance at the band edges with an SWR which causes little if any concern.

(3) The impedance of the transmission line is usually known only approximately. The reactance of Zo is always ignored. So exact SWR on the line is never known. SWR varies slowly with small changes in antenna off-resonance length.

(4) If an antenna tuner can accommodate changes in input impedance from one band to another it can certainly accommodate the omission of the correction factor 468/F.

(5) So it hardly matters whether the correction is applied or not. The minute difference in operating performance will be detected only by an impossible A/B test. You can put away your pruning shears.

The theoretical resonant length of a 1/2-wave dipole is 150/F metres. The actual resonant length is very slightly shorter.

In free space, the shortening depends on length-to-diameter ratio of the antenna conductor. But at low heights above ground the shortening effect increases.

When the antenna wire is lying on the ground its velocity factor is approximately 1/2 of the free space value of 1.

So you see the formula 468/F, although good enough for most purposes if you want to use it, is very approximate.

The question is about the resonant length of a 6m dipole.

Is the dipole 6 metres long or is it resonant in the 6 metre amateur band? Questioners should make themselves clear.

Assuming it is 50 MHz, resonant dipole length is very nearly 150/F metres = 3 metres.

But the answer depends on conductor diameter. If frequency is 50 MHz and the antenna is constructed with 14 gauge wire then the resonant dipole length is 97 percent of 3 metres.

If the anenna is constructed of 1", 25mm, diameter tubes, then the resonant length is a little shorter. It is 94 percent of 3 metres.

But actual lengths are non-critical. You can use a tape measure or a wooden ruler. And don't worry if you can't find your spectacles.

Reg.

4878. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 12:52:50 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <x_adndNTpqLbRALZnZ2dnUVZ8qudnZ2d@bt.com>
Source record: 57120

There's a great difference between working on antenna conductors and 60 Hz power lines.

Body capacitance is all-important at HF. At 60 Hz it is the conduction path which matters. Workmen can be enclosed in Faraday screens.

4879. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 13:05:46 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <KYQng.108933$H71.102200@newssvr13.news.prodigy.com>
Source record: 57121

Gene Fuller wrote:
> Early in this thread "conventional accepted physics" said that corona
> could not exist in fairweather conditions.

I just waded back through my postings. A day or two after making
that statement, I added the context in which that statement was
made. (That happened days ago).

Conventional accepted physics says that corona cannot exist in
fairweather conditions without an additional source of energy.
When I asked that the source of corona energy be identified,
I believe it was you who said, "Who cares?". So I ask again.
Given fairweather conditions, what is the source of energy
for corona? In matters of politics, one follows the money.
In matters of physics, one follows the energy.
--
73, Cecil http://www.qsl.net/w5dxp

4880. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 14:28:57 UTC
From: "Dr. Honeydew" <dr_b_honeydew@msn.com>
Message-ID: <1151332137.642058.57780@i40g2000cwc.googlegroups.com>
Source record: 57122

Frank Alforo wrote:
> If I touch the coil in my tuner while transmitting I get a painful rf burn.
> But a bird can perch on my antenna wire while I transmit 100 watts and it
> stays there seemingly without a care in the world. How come?

What Muppet Labs would like to know is why you touch the coil in your
tuner while you are transmitting. Don't do that! Also avoid things
like putting your fingers across live mains conductors and placing your
hand on hot stoves.

Bunsen

4881. low power FM TX and multiple antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 15:24:37 UTC
From: MRW <mr.whatever@gmail.com>
Message-ID: <1151335477.317846.142060@r2g2000cwb.googlegroups.com>
Source record: 57123

Greetings.

If we are using one low power FM transmitter and we want to use a 2-bay FM antenna configuration, will using a power splitter at the transmitter output be sufficient?

The FM TX utilizes a type N connection to the FM antennas. .... So if I split the power output and just have two outputs to handle each of the two antennas, then that would work right?

What other considerations should I have in mind? Do I need to worry about phasing issues?

Thanks!

4882. Re: Have any of you mailed this to your ARRL Division directors and SM's yet?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 15:33:56 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1151336036.341348.169320@u72g2000cwu.googlegroups.com>
Source record: 57124
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.swap,rec.radio.amateur.policy

kb9rqz_child_molester@yahoo.com wrote:
get help sicko

4883. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 15:47:02 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1151336822.885244.160620@c74g2000cwc.googlegroups.com>
Source record: 57125
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

markie_morgan_rapesboys@yahoo.com wrote:
get help sicko

4884. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 16:02:46 UTC
From: richardharrison@webtv.net
Message-ID: <21487-44A00526-9@storefull-3258.bay.webtv.net>
Source record: 57026

Frank Alforo wrote:
"But a bird can perch on my antenna wire while I transmit 100 watts and it stays there seemingly without a care in the world."

Frank isn`t using enough power. I worked in a shortwave broadcasting plant filled with 50 KW and 100 KW DSB fully modulated transmitters. Our relatively flat transmission lines were of the 2-wire unshielded 600-ohm variety. These lines must have attracted countless tired migratory birds to alight or try to alight. When a bird would try to grasp a wire, it would instantly be consumed in a puff of smoke and steam. No carcass fell to the earth. Poof! it was gone. Many times their claws were left behind gripping the wire leaving us a record of the bird`s visit. Many wires were covered with bird claws. RF can kill more birds than cats can.

Best regards, Richard Harrison, KB5WZI

4885. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 16:25:19 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrnea02jf.15nv.ben@saturn.home.ben.com>
Source record: 57027

On 2006-06-26, Richard Harrison <richardharrison@webtv.net> wrote:
> bird`s visit. Many wires were covered with bird claws. RF can kill more
> birds than cats can.

Maybe we can use this to distract people who claim wind farms are bird
killers.

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

4886. Re: Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 17:57:08 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a02082$0$16233$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57028

if the OP has no antenna or coax problems, he might invest in an antenna tuner.

http://www.ocarc.ca/coax.htm

example follows.

100 watt transmitter
30 watts out
50 feet Belden 9913
2:1 SWR
26 watts to antenna

Gravity

4887. Re: Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 17:58:43 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a020e2$0$15916$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57029

> What coax?? I didn't say I used coax. I said I run about 30:1 VSWR on 75
meters.
>
> I use 600 ohm open wire tuned feeders.

much better than coax.

i had no easy way to run twin lead through my window, so i used RG 58. my
losses were bad.

Gravity

4888. Re: Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 17:59:20 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a02106$0$15591$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57030

>I've been a ham since before coax became
> commonly used. <g>

are you bragging about being old? ;-)

Gravity

4889. Re: Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 18:10:36 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <wqVng.123537$dW3.57941@newssvr21.news.prodigy.com>
Source record: 57031

gravity wrote:
> i had no easy way to run twin lead through my window, so i used RG 58. my
> losses were bad.

At any hardware store, you can buy a drill that will put
a hole through glass. That's pretty easy.
--
73, Cecil http://www.qsl.net/w5dxp

4890. Re: Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 18:11:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <rrVng.123538$dW3.20433@newssvr21.news.prodigy.com>
Source record: 57032

gravity wrote:
>> I've been a ham since before coax became
>> commonly used. <g>
>
> are you bragging about being old? ;-)

Before WWII, coax wasn't all that popular.
--
73, Cecil http://www.qsl.net/w5dxp

4891. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 18:27:28 UTC
From: Bob Bob <bob3bob3@cox.net>
Message-ID: <ghl5n3-fmv.ln1@p400bob.personal.cox.net>
Source record: 57034

Okay silly question Richard

Did the birdless claws have any noticable effect on the match/tuning of
the antenna?

<grin>

Cheers Bob

Richard Harrison wrote:
> steam. No carcass fell to the earth. Poof! it was gone. Many times their
> claws were left behind gripping the wire leaving us a record of the
> bird`s visit. Many wires were covered with bird claws. RF can kill more
> birds than cats can.

4892. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 18:45:42 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e7pbp7$ai5$1@news.service.uci.edu>
Source record: 57035

Cecil Moore wrote:

> gravity wrote:
>
>> All truth passes through three stages. First, it is ridiculed. Second,
>> it is
>> violently opposed. Third, it is accepted as being self-evident.
>
>
> What is being missed is that charged particle RF noise
> is already conventional-wisdom/mainstream-physics.

True. The question being asked is "How could it be possible to hear such tiny charges impacting an antenna?" It is just as reasonable to ask how could it be possible to detect the presence of tiny electromagnetically induced currents on an antenna. But in consideration of the latter, it should be apparent that if the magnitude of the randomly fluctuating ion current approaches that of a small electromagnetic current it would be impossible not to detect it.

73, ac6xg

4893. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 18:57:09 UTC
From: nm5k@wt.net
Message-ID: <1151348229.474156.210020@m73g2000cwd.googlegroups.com>
Source record: 57033

tomk3mov@yahoo.com wrote:
> The BuxComm Antenna Company sells what it calls an All Band Coax-fed
> Dipole.
>
> http://www.commparts.com/catalog/product_info.php?cPath=9&products_id=114318&osCsid=a84f
7ccef1c8c9d59effad91005875fb
>
>
> It consists of 135 ft. of wire, a balun at the center feed point, and
> the RG 8X coax transmission line.

A true coax fed "dipole" needs to see a 50 ohm load on
any of the bands to be used. Well, unless you like to lose
a lot of power on some bands. :/ So it would be better to
use an auto tuner at the feedpoint. It would be even better
to decide what bands you *really* intend to use, and run
dipole legs for each band in parallel. Spread wide apart
is better than stacking them on top of each other with
spreaders.
The antenna as they sell it is pretty micky mouse for an
"all band coax fed dipole". As one mentioned, the loss on
40m could be large if you feed with coax to a high Z load.
The antenna they sell would be best run using ladder line
all the way to a tuner, or tuned by length. Seems like you
say they mentioned this, but then why buy the uneeded
coax, choke, etc that you would end up discarding. ?? :(
MK

4894. Re: Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 19:31:04 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <F8Odne_PDsZoqD3ZnZ2dnUVZ_qqdnZ2d@comcast.com>
Source record: 57036

gravity wrote:

>>I've been a ham since before coax became
>>commonly used. <g>
>
>
> are you bragging about being old? ;-)
>
> Gravity
>
>

Among other things! Have I told you about my grand kids??? <g>

4895. Re: Mobile - On Glass Antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 20:03:34 UTC
From: Jim - NN7K <nn7kexk7zfg@NOSPAMsbcglobal.net>
Message-ID: <q4Xng.109231$H71.84972@newssvr13.news.prodigy.com>
Source record: 57037

Had mine fall off, too, used Rear View Mirror Glue
on mine, and no problem since! similar to super
glue--auto parts houses carry it. Jim NN7K

Cecil Moore wrote:
> J. Kragh wrote:
>
>> Use an adhesive intended for wet environments
>
>
> I'll bet the adhesive used for repairing wetsuits
> would work well.

4896. Re: Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 20:10:08 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a03faf$0$16470$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57038

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:wqVng.123537$dW3.57941@newssvr21.news.prodigy.com...
> gravity wrote:
> > i had no easy way to run twin lead through my window, so i used RG 58.
my
> > losses were bad.
>
> At any hardware store, you can buy a drill that will put
> a hole through glass. That's pretty easy.

i considered a replacement (acrylic) pane for the window, but i couldn't get
permission for that.

the joys of renting.

Gravity

4897. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 20:54:40 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e7phig$k52$1@avnika.corp.mot.com>
Source record: 57039
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:Qt3ng.484$RD.249@fed1read08...
Hi Sal...

> I have problems with most characters of four or more elements length.
> Exceptions are <period> and <Q>, for some reason.

Since I don't do CW too much anymore, I have similar problems, and I've
been at it since 1961!
If I did it more, I'd probably get better and I'm not suggesting that you
"need more practice", just offering a little empthy... (:-)

[... snip ...] Oh yeah -- I know <V> because the dit-dit-dit-dah sounds
> like the 1812 overture.

Ummm... I believe you are referring to ''Beethoven's fifth" di - di -
di - dah. di - di - di - dah. dididididah, dididididah, dididididah...

73, Steve, K9DCI

4898. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 21:11:26 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151356286.883560.56280@i40g2000cwc.googlegroups.com>
Source record: 57040
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Steve N. wrote:
> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
> news:Qt3ng.484$RD.249@fed1read08...
> Hi Sal...
>
> > I have problems with most characters of four or more elements length.
> > Exceptions are <period> and <Q>, for some reason.
>
> Since I don't do CW too much anymore, I have similar problems, and I've
> been at it since 1961!
> If I did it more, I'd probably get better and I'm not suggesting that you
> "need more practice", just offering a little empthy... (:-)
>
>
> [... snip ...] Oh yeah -- I know <V> because the dit-dit-dit-dah sounds
> > like the 1812 overture.
>
>
> Ummm... I believe you are referring to ''Beethoven's fifth" di - di -
> di - dah. di - di - di - dah. dididididah, dididididah, dididididah...
>
I am realy gald you said that I was thinking it myself but......
> 73, Steve, K9DCI

4899. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 21:19:37 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <JbYng.257840$Fs1.162527@bgtnsc05-news.ops.worldnet.att.net>
Source record: 57041

Cecil Moore wrote:
> Gene Fuller wrote:
>> Early in this thread "conventional accepted physics" said that corona
>> could not exist in fairweather conditions.
>
> I just waded back through my postings. A day or two after making
> that statement, I added the context in which that statement was
> made. (That happened days ago).
>
> Conventional accepted physics says that corona cannot exist in
> fairweather conditions without an additional source of energy.
> When I asked that the source of corona energy be identified,
> I believe it was you who said, "Who cares?". So I ask again.
> Given fairweather conditions, what is the source of energy
> for corona? In matters of politics, one follows the money.
> In matters of physics, one follows the energy.

Cecil,

I said that one could use either energy or forces (fields) to solve most problems. (I have said something similar several times in the past.) It is often much more convenient to use one formalism over the other due to the availability of numerical information and workable boundary conditions. If the problem is set up correctly and the math is done correctly the same answer will result from either formalism.

If you want to solve the corona question by "following the energy", have at it. Go ahead and set up the correct boundary conditions, figure out the right equations to use, and just plug-and-crank. Piece o' cake. The only minor issue is that the atmosphere can act as a effectively limitless source or sink for energy. But I am confident you can find a way around that little detail.

By the way, I would sure like to find that reference you have for "conventional accepted physics." I have a library full of physics books, all of which seem to be conventional and accepted, but I have not found one that has such as all-encompassing title.

73,
Gene
W4SZ

4900. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 21:19:44 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e7pj1h$k95$1@avnika.corp.mot.com>
Source record: 57043

Ooooo Saw the call and had to comment...

I have a 40M inverted Vee up around 35 ft. . I have had out of state
contacts on 75, 40(DX), 30(DX), 17, 15, 10 and 6. Is it a "good" antenna?

I wish I had better, but it "works". Do I think it is a great antenna? No.
Do I think it can be called efficient on the other bands? No. Do I think
it has lots of lobes on the higher frequencies? Yes. If I can hear them, I
can usually work them. OK by me... Do I have room for better? No.
I got much more than what I paid for $0.00. You can probably do better with
a "fan-type" dipole. I keep thinking I should at least add 75M wires and
20M wires. When I have time... . . . . . .

The antenna in question is similar and just as inefficient on some bands and
has many lobes on others. It'll get you on the air if this is what you want
/ can afford.

Dave... I used to talk with KC9DI on 2M. We'd say the calls as fast as we
could, just to confuse the random listener...(:-)

73, Steve, K9DCI

"KC1DI" <davekc1di@gmail.net> wrote in message
news:e7odqb$h92$1@nntp.aioe.org...
> tomk3mov@yahoo.com wrote:
> > The BuxComm Antenna Company sells what it calls an All Band Coax-fed
> > Dipole.
> >
> >
http://www.commparts.com/catalog/product_info.php?cPath=9&products_id=114318&osCsid=a84f7c
cef1c8c9d59effad91005875fb
> >
> >
> > It consists of 135 ft. of wire, a balun at the center feed point, and
> > the RG 8X coax transmission line. I don't claim to know a whole lot
> > about antennas, but this configuration is contrary to everything that I
> > have read about feeding mutiband antennas. When I wrote to the company
> > with a question about this, I received a response from K4ABT, Buck
> > Rogers himself. He attached to his note a section from the ARRL Antenna
> > Book, which seems to indicate that coax should not be used with this
> > type of antenna if one wants to use it as a multibander. I have a lot
> > of respect for Buck, based on his years of Elmering a lot of us through
> > his articles. But this one has me stumped. Any input will be
> > appreciated.
> >
>

> My opinion would be that you'd be much better off if you want a single
> wire antenna fed with coax going with one of the off center fed models.
> the SWR is much better on many bands than the center fed model.
>
> But if you must have a center fed model then you'll need to feed
> it with open wire line of some sort .. coax just is not going to perform
> well for you in a single wire all band dublet. the Losses on most bands
> are not good.
>
> 73 Dave kc1di

4901. Re: low power FM TX and multiple antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 21:21:00 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <12a0jtu841lvn8c@corp.supernews.com>
Source record: 57042

MRW wrote:
> Greetings.
>
> If we are using one low power FM transmitter and we want to use a 2-bay
> FM antenna configuration, will using a power splitter at the
> transmitter output be sufficient?
>
> The FM TX utilizes a type N connection to the FM antennas. .... So if I
> split the power output and just have two outputs to handle each of the
> two antennas, then that would work right?
>
> What other considerations should I have in mind? Do I need to worry
> about phasing issues?
>
> Thanks!
>

You need to move the splitter closer to the antennas in order to save
power losses. You you need to worry about phasing but that is taken care
of when you run the coax from the antennas to the splitter cut the coax
to approx. 1/2 wave. See the ARRL antenna book.
You will have a change in impedance in this configuration from the
splitter to the antennas. Look at about 70 ohms to the antennas and use
50 ohms from the transmitter to the splitter.
I am sure that other helpful assistance will be forthcoming from others.
Turn your BS filter on.

Dave WD9BDZ

4902. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 21:51:48 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a05784$0$15331$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57044
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
"an_old_friend" <konstans@hotmail.com> wrote in message
news:1151356286.883560.56280@i40g2000cwc.googlegroups.com...
> Steve N. wrote:
> > "Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
> > news:Qt3ng.484$RD.249@fed1read08...
> > Hi Sal...
> >
> > > I have problems with most characters of four or more elements length.
> > > Exceptions are <period> and <Q>, for some reason.
> >
> > Since I don't do CW too much anymore, I have similar problems, and
I've
> > been at it since 1961!
> > If I did it more, I'd probably get better and I'm not suggesting that
you
> > "need more practice", just offering a little empthy... (:-)
> >
> >
> > [... snip ...] Oh yeah -- I know <V> because the dit-dit-dit-dah sounds
> > > like the 1812 overture.
> >
> >
> > Ummm... I believe you are referring to ''Beethoven's fifth" di -
di -
> > di - dah. di - di - di - dah. dididididah, dididididah, dididididah...
> >
> I am realy gald you said that I was thinking it myself but......
> > 73, Steve, K9DCI
>

the 5th is the only classical piece i can think of that starts like that but
i'm sure there are more.

L is easy to remember. "to hell with it".

Gravity
```

4903. Retard Markie

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 22:27:12 UTC
From: lloyd_n0vfp@yahoo.com
Message-ID: <1151360832.162348.7950@y41g2000cwy.googlegroups.com>
Source record: 57045
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

an old freind wrote:
> markie_morgan_rapesboys@yahoo.com wrote:
> get h

Truth hurt, faggot?

4904. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 22:40:05 UTC
From: Caveat Lector <UALLBeware@9984reader.com>
Message-ID: <9nZng.106828$TK1.40562@fed1read06>
Source record: 57046
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

RE THE SUBJECT TITLE
No one is eliminating the code, only the requirement to obtain a Ham license
Many will use CW for many years to come
Consider it an optional communication method.

RE : Morse musical and word associations
> the 5th is the only classical piece i can think of that starts like that
> but
> i'm sure there are more.
>
> L is easy to remember. "to hell with it".
>
> Gravity
>
>

dah dah dit dah
Her comes the bride
She is a Queen for the day
Queen = Q

More associations at URL:
http://www.afn.org/~afn05925/cw/

dah dah dit dit -- stupid zebra did it

di dah di dah dit AR = You Think You Got It

--
CL -- I doubt, therefore I might be !

4905. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 22:45:37 UTC
From: an old freind <kb9rqz@hotmail.com>
Message-ID: <1151361937.527697.295690@u72g2000cwu.googlegroups.com>
Source record: 57047
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

lloyd_n0vfp@yahoo.com wrote:
> an old freind wrote:
> > markie_morgan_rapesboys@yahoo.com wrote:
> > get help
>
> Truth hurt, faggot?
the trth never hurts

but then you never tell the truth

get help wismen

4906. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-26 23:55:14 UTC
From: John - KD5YI <groups5munge@verizon.net>
Message-ID: <Ct_ng.26884$Xn.3642@trnddc05>
Source record: 57048

Reg Edwards wrote:
> There's too much fuss made about resonant length of simple wire
> antennas.
>
> (1) Radiating efficiency is hardly affected by being as much as 20 or
> 30 percent off-resonance in terms of antenna length.
>
> (2) The feedpoint resistance at resonance may indeed provide the
> theoretical correct termination for the transmission line for 1-to-1
> SWR in the middle of an amateur band. But it is way off resonance at
> the band edges with an SWR which causes little if any concern.
>
> (3) The impedance of the transmission line is usually known only
> approximately. The reactance of Zo is always ignored. So exact SWR on
> the line is never known. SWR varies slowly with small changes in
> antenna off-resonance length.
>
> (4) If an antenna tuner can accommodate changes in input impedance
> from one band to another it can certainly accommodate the omission of
> the correction factor 468/F.
>
> (5) So it hardly matters whether the correction is applied or not. The
> minute difference in operating performance will be detected only by an
> impossible A/B test. You can put away your pruning shears.
>
> The theoretical resonant length of a 1/2-wave dipole is 150/F metres.
> The actual resonant length is very slightly shorter.
>
> In free space, the shortening depends on length-to-diameter ratio of
> the antenna conductor. But at low heights above ground the shortening
> effect increases.
>
> When the antenna wire is lying on the ground its velocity factor is
> approximately 1/2 of the free space value of 1.
>
> So you see the formula 468/F, although good enough for most purposes
> if you want to use it, is very approximate.
>
> The question is about the resonant length of a 6m dipole.
>
> Is the dipole 6 metres long or is it resonant in the 6 metre amateur
> band? Questioners should make themselves clear.
>
> Assuming it is 50 MHz, resonant dipole length is very nearly 150/F

> metres = 3 metres.
>
> But the answer depends on conductor diameter. If frequency is 50 MHz
> and the antenna is constructed with 14 gauge wire then the resonant
> dipole length is 97 percent of 3 metres.
>
> If the anenna is constructed of 1", 25mm, diameter tubes, then the
> resonant length is a little shorter. It is 94 percent of 3 metres.
>
> But actual lengths are non-critical. You can use a tape measure or a
> wooden ruler. And don't worry if you can't find your spectacles.
> ----
> Reg.
>

Hook, line, and sinker!

4907. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 00:07:10 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a07740$0$15851$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57049

"John - KD5YI" <groups5munge@verizon.net> wrote in message
news:Ct_ng.26884$Xn.3642@trnddc05...

> > But actual lengths are non-critical. You can use a tape measure or a
> > wooden ruler. And don't worry if you can't find your spectacles.
> > ----
> > Reg.
> >
>
>
> Hook, line, and sinker!

and also the dipole is shorter because you want to cancel out the reactance.
a "real" half-wave would have a resistive and reactive component.

i think if you get into big tubing or pipe, you get too much reactance.

Gravity

4908. Re: i want to know the length of a 6m dipole

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 00:12:19 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a07874$0$79632$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57050

> > The theoretical resonant length of a 1/2-wave dipole is 150/F metres.

i should have thought of that.

c = 3 * 10^8 m/s
F = frequency / 10^6

465/F theoretical (feet)
468/F practical

i think i made a math error.

Gravity

4909. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 00:45:07 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <nc%ng.1855$NP4.394@newsread1.news.pas.earthlink.net>
Source record: 57051
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

```
"DrDeath" <drdeath555usb@yahoo.com> wrote in
news:129lvmgofeujhbd@corp.supernews.com:

> "Slow Code" <sc.h@m.mail> wrote in message
> news:FXkmg.15$ii.9@newsread3.news.pas.earthlink.net...
>> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
>> news:wh4mg.139$lv.109@fed1read12:
>>
>>>
>>> "Slow Code" <sc@mo.mail> wrote in message
>>> news:cO%lg.8936$lp.2685@newsread3.news.pas.earthlink.net...
>>>> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in
>>>> news:YGKlg.104$lv.41@fed1read12:
>>>>
>>>> >
>>>> > "dxAce" <dxAce@milestones.com> wrote in message
>>>> > news:44969559.30D72920@milestones.com...
>>>> >
>>>> >>
>>>> >> Anybody who can't pass the minimal 5 WPM doesn't deserve a
>>>> >> license.
>>>> >
>>>> > That's needlessly insulting.
>>>>
>>>>
>>>> No it isn't.
>>>>
>>>> Some things in life require you do a little work to enjoy their
>>>> benefits. You don't want to learn CW, you shouldn't be allowed on ham
>>>> radio.
>>>>
>>>> And Five words per minute ain't a code test. I can fart five words
>>>> per minute. Anyone that can't learn 5 wpm is either lazy or a tard
>>>> and should stick to CB, FRS, and cell phones.
>>>
>>> I am a gainfully-employed degreed engineer with an above-average IQ
>>> and dyslexia. You are beneath contempt.
>>
>>
>> Anyone else hear a tiny violin playing?
>>
```

>>
>> sc
>
> No, I see a newsgroup clown that can't accept the fact that this man
> learned to succeed despite his dyslexia. Instead of offering ideas that
> could help him learn code you decide to insult him. You sit and whine
> about how ham radio is going to shit because they allow no code tech
> licensing and possibly doing away with code altogether. But you missed
> the biggest point with ham radio it was to help people. Did you help
> this man by offering alternative options to learn code? No, you insult
> him instead. It is you and your kind that will be the downfall of ham
> radio. Blame yourself.

Granting a person privileges because they're retarded is like being forced
to hire someone because they're black.

sc

4910. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 00:45:10 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <qc%ng.1856$NP4.960@newsread1.news.pas.earthlink.net>
Source record: 57052
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"gravity" <gravityzrainbow@yahoo.com> wrote in
news:449c2766$0$79632$892e7fe2@authen.yellow.readfreenews.net:

>> How many times, say during Katrina did this occour
>
> uh, if you are deserted on an island with a few buckets of electronics
> junk, your best bet is CW.
>
> if you a prisoner of war, CW could be invaluable in getting a message
> out. there are many other cases where CW can be used in channels that
> don't support audio.
>
> i am a superior creature because i know CW! ;-)
>
> Gravity

I feel I'm a better radio amateur for knowing and being able use CW, but I
don't feel superior. When hardware fails, my pencil and paper still
work.

sc

4911. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 00:45:13 UTC
From: Hey Stupid <my.mail@no.spam>
Message-ID: <tc%ng.1857$NP4.804@newsread1.news.pas.earthlink.net>
Source record: 57053
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"an old freind" <kb9rqz___ars@hotmail.com> wrote in
news:1151098783.711872.84350@r2g2000cwb.googlegroups.com:

>
> gravity wrote:
>> > How many times, say during Katrina did this occour
>>
>> uh, if you are deserted on an island with a few buckets of electronics
>> junk, your best bet is CW.
> and I can send sos with spark gap off a batery without knowing anymore
> than that
>>
>> if you a prisoner of war, CW could be invaluable in getting a message
>> out. there are many other cases where CW can be used in channels that
>> don't support audio.
>>
>> i am a superior creature because i know CW! ;-)
> bullshit

Mark,
Why don't you come back to the net after you learn how to talk.

Thanks

SC

4912. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 00:45:18 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <yc%ng.1859$NP4.525@newsread1.news.pas.earthlink.net>
Source record: 57055
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx,rec.radio.cb

"DrDeath" <drdeath555usb@yahoo.com> wrote in
news:129mlm3nr8l38cf@corp.supernews.com:

> "Steveo" <moparholic@hotmail.com> wrote in message
> news:20060622210907.921$Dw@newsreader.com...
>> No fire waters right after the pow-wow, k? (you fuckers act crazy) :P
>
> How bout we smokem piece pipe?

Hey Chicken Blaster, It's 'peace', not 'piece', you retard.
So stick that in your Crack pipe and smoke it.

4913. Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 00:45:22 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <Cc%ng.1860$NP4.381@newsread1.news.pas.earthlink.net>
Source record: 57054
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Did a lot of Elmering too, but that's what ham radio is about. Also glad that we weren't outnumbered by appliance operators. With them, when a computer goes down it's like the end of the world.

sc

4914. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 01:08:43 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1151370523.686225.179810@75g2000cwc.googlegroups.com>
Source record: 57056
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Hey Stupid wrote:
> "an old freind" <kb9rqz___ars@hotmail.com> wrote in
> news:1151098783.711872.84350@r2g2000cwb.googlegroups.com:

> >> i am a superior creature because i know CW! ;-)
> > > bullshit
> >
> Mark,
> Why don't you come back to the net after you learn how to talk.
why should I leave then

you are the one tlaking nothing but shit
>
> Thanks
>
>
> SC

4915. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 01:09:52 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1151370592.000721.146310@p79g2000cwp.googlegroups.com>
Source record: 57057
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx

```
Slow Code wrote:

>
> Hey Chicken Blaster, It's 'peace', not 'piece', you retard.
> So stick that in your Crack pipe and smoke it.
more of your Bullshit I see
```

4916. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 01:14:25 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1151370865.719594.289400@c74g2000cwc.googlegroups.com>
Source record: 57058
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Slow Code wrote:
> Did a lot of Elmering too, but that's what ham radio is about.
nah you can't nobody could learn much with manner

4917. Re: Need help on How to test transmission line

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 02:27:36 UTC
From: Tam/WB2TT <t-tammaru@c0mca$t.net>
Message-ID: <ktGdnVONfYUMCj3ZnZ2dnUVZ_qydnZ2d@comcast.com>
Source record: 57059

<sbusono@gmail.com> wrote in message
news:1151277657.955753.186840@y41g2000cwy.googlegroups.com...
> Hi fellow amateurs,
> I am using 746Pro for 6M with direct coax to my 5 el antenna. I used to
> get 1:1 SWR but recently, the SWR runs a little over 1:2 and my output
> drops to 30W.When stations in FN20 were working EU, I could hear
> nothing. My signal can still be received because I was able to make
> contacts despite 1:2 SWR as far as FM5AA. But I know something is wrong
> with the line or the antenna. I checked all the connections and they
> seemed to be ok.
>
> Can someone help by directing me to a source where I can read about
> troubleshooting transmission line? Or can someone who has experience in
> this give me step by step instruction on how to diagnose the problem,
> e.g., is it the PL 259 at the rig side, or the antenna side, or
> somewhere along the line, or is it the antenna altogether. I have an
> ohm meter and a small swr/pwr meter box.
> Thanks in advance.
>
> 73, steve
>
I presume this is a CushCraft with a Gamma match, and an SO239 connector for the feed. I have a CC 2meter antenna where the SWR shot up. Turned out to be the shell of the SO239 not making good contact with the Gamma bracket. Could also be something loose in the match itself.

If you are using the original 9913, it could be full of water.

It would also be useful to find out if you still get maximum gain off the front of the antenna. Do a 360 on one of the beacons, and record the S meter readings

Before doing anything at the antenna, I would look at the coax and see if there is any visible damage, like from squirrels. The next easiest thing to do is to whack off the PL259 on the radio end, and very carefully install a new connector.

Ignore the crap about high SWR being OK. It's not OK for a 6m beam that used to work.

Tam/WB2TT

4918. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 04:19:33 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <ol2og.1072$RD.897@fed1read08>
Source record: 57060
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
news:e7phig$k52$1@avnika.corp.mot.com...
>
> "Sal M. Onella" <salmonella@food.poisoning.org> wrote in message

> [... snip ...] Oh yeah -- I know <V> because the dit-dit-dit-dah sounds
> > like the 1812 overture.
>
>
> Ummm... I believe you are referring to ''Beethoven's fifth" di - di -
> di - dah. di - di - di - dah. dididididah, dididididah, dididididah...
>
> 73, Steve, K9DCI
>
>
Hm-m-m. I can hear that in my head. ... thought it was the 1812 Overture.

BT

Playing the selection is mighty convincing: Ol' Ludwig pops off some V's
right at the start. I do not seem to have the 1812 Overture handy, so here
I tread ever-so-lightly ... not being much for knowing good music. I can
run bits of 1812 through my head, too, but not much. (I just get started
and run out of headroom.) I shall seek it out. TKS & 73

Sal
(really KD6VKW, the vicious killer weasel)

4919. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 04:42:19 UTC
From: "Sal M. Onella" <salmonella@food.poisoning.org>
Message-ID: <KG2og.1073$RD.569@fed1read08>
Source record: 57061
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:ol2og.1072$RD.897@fed1read08...
>
> "Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote :

> > Ummm... I believe you are referring to ''Beethoven's fifth" di -
di -
> > di - dah. di - di - di - dah. dididididah, dididididah, dididididah...
> >
> > 73, Steve, K9DCI

MORE: I just played the 1812 Overture and didn't hear any V's. Heard quite
a few T's and E's ... but no V's.

Thanks.

4920. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 06:29:12 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a0d0c8$0$11193$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57062
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

"Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
news:ol2og.1072$RD.897@fed1read08...
>
> "Steve N." <stuevue.nouskuowuicuz@moutouroula.com> wrote in message
> news:e7phig$k52$1@avnika.corp.mot.com...
> >
> > "Sal M. Onella" <salmonella@food.poisoning.org> wrote in message
>
> > [... snip ...] Oh yeah -- I know <V> because the dit-dit-dit-dah sounds
> > > like the 1812 overture.
> >
> >
> > Ummm... I believe you are referring to ''Beethoven's fifth" di -
di -
> > di - dah. di - di - di - dah. dididididah, dididididah, dididididah...
> >
> > 73, Steve, K9DCI
> >
> >
> Hm-m-m. I can hear that in my head. ... thought it was the 1812
Overture.
>
> BT
>
> Playing the selection is mighty convincing: Ol' Ludwig pops off some V's
> right at the start. I do not seem to have the 1812 Overture handy, so
here
> I tread ever-so-lightly ... not being much for knowing good music. I can
> run bits of 1812 through my head, too, but not much. (I just get started
> and run out of headroom.) I shall seek it out. TKS & 73

it is a 12(?) minute piece, and i ran a few minutes through my head. there
is a short part that goes dit dit dit dah.

if you get the real cannon / bass drum recording, it is incredible.

Gravity

4921. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 10:19:06 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12a21gtrbsfkf63@corp.supernews.com>
Source record: 57063

Owen Duffy wrote:
> . . .
> Frank, in the absence of information on the balun, I did model it as
> ideal, and that the load at the load end of the coax was 4200 ohms.
> That is probably a reasonable assumption.

Perhaps the 4200 ohms is reasonable, but the assumption that the balun is ideal when connected to that load impedance is most definitely not. Any result you get when using that assumption is useless.

> A real balun would not perfectly isolate the transmission line from
> drive so influencing feed point impedance , and would probably
> transform the real feed point impedance to something different to 4200
> ohms, and so the line losses could be different (better or worse).

A real balun would do all those things, in addition to adding reactance and, at that impedance level, loss.

>. . .

Roy Lewallen, W7EL

4922. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 10:24:38 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12a21r9tce0jpf4@corp.supernews.com>
Source record: 57064

tomk3mov@yahoo.com wrote:
> The BuxComm Antenna Company sells what it calls an All Band Coax-fed
> Dipole.
>
> http://www.commparts.com/catalog/product_info.php?cPath=9&products_id=114318&osCsid=a84f
7ccef1c8c9d59effad91005875fb
>
>
> It consists of 135 ft. of wire, a balun at the center feed point,

How did you conclude that the feed point is at the center? The lengths
of the sides are labeled only "L1" and "L2" on the drawing.

and
> the RG 8X coax transmission line. I don't claim to know a whole lot
> about antennas, but this configuration is contrary to everything that I
> have read about feeding mutiband antennas. When I wrote to the company
> with a question about this, I received a response from K4ABT, Buck
> Rogers himself. He attached to his note a section from the ARRL Antenna
> Book, which seems to indicate that coax should not be used with this
> type of antenna if one wants to use it as a multibander. I have a lot
> of respect for Buck, based on his years of Elmering a lot of us through
> his articles. But this one has me stumped. Any input will be
> appreciated.

I believe the antenna will be quite inefficient on some if not all
bands, either by accident (a balun which becomes lossy when confronted
with extreme impedances) or intent (a resistor inside the "balun"
container). If so, it's possible you'll get a reasonable match on all
bands, and nearly certain that you'll be able to talk to some people
when using it. But it also means that your signal will be considerably
weaker than it would be if you were using an efficient antenna.

Roy Lewallen, W7EL

4923. Retard Mark spam

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 11:32:45 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1151407965.119284.26520@75g2000cwc.googlegroups.com>
Source record: 57065
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

```
an old friend wrote:
> Slow Code wrote:
> > Did a lot of Elmering too, but that's what ham radio is about.
> nah you can't nobody could learn much with manner
^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^

You sure didn't learn English, retard.
```

4924. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 11:43:12 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <kR8og.73429$4L1.40302@newssvr11.news.prodigy.com>
Source record: 57066

Gene Fuller wrote:
> If you want to solve the corona question by "following the energy", have
> at it.

The basic question is where does the energy from corona
come from? There should be a simple answer to that
simple question.
--
73, Cecil http://www.qsl.net/w5dxp

4925. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 12:49:34 UTC
From: "J. D. B." <duffyb01@nospamfuse.net>
Message-ID: <1730d$44a129d9$d06640f9$23135@FUSE.NET>
Source record: 57068
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

I know what you mean about Elmering. Many of the new hams had to Elmer the old CW only hams who had no idea how to operate a computer or even use all the great new digital modes. Some of the dinos had trouble trying to figure out the solid state rigs. They kept looking around for things to tune like it was some boat anchor tube rig - LOL!!!

It's amazing how the dinos can operate a key, but they can't get the hang of a mouse. We eventually had to give up. Can't teach the old dogs new tricks so the younger and newer hams used the digital modes and the old dinos stuck to their CW.

Although the CW types were amazed how PSK31 could be copied even when you could not hear the other station. They admitted that you can't copy CW if you cannot hear it.

I think we made a lot of progress on FD. Finally the dinos admitted that there are modes that are better and more capable than CW.

One old guy even said we should give up on the CW testing and test new hams how to use a computer and the new digital modes and that was more relevant for today's ham radio.

Slow Code wrote:
> Did a lot of Elmering too, but that's what ham radio is about. Also glad
> that we weren't outnumbered by appliance operators. With them, when a
> computer goes down it's like the end of the world.
>
> sc
>
>

4926. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 12:57:58 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <qX9og.65251$mF2.33416@bgtnsc04-news.ops.worldnet.att.net>
Source record: 57069

Cecil Moore wrote:
> Gene Fuller wrote:
>> If you want to solve the corona question by "following the energy",
>> have at it.
>
> The basic question is where does the energy from corona
> come from? There should be a simple answer to that
> simple question.

Cecil,

Why should there be a simple answer?

I already told you that is not the path I would take if I wanted to find a quantitative solution. You might check your "conventional accepted physics" references if you are looking for a simple answer. On the other hand, if those references consist only of hand-waving explanations, common sense logic, and quotes from legions of experienced radio amateurs, then you may need to do some actual work to find your answer.

73,
Gene
W4SZ

4927. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 13:16:53 UTC
From: Gerry <NoEmail@Spamblock.isp>
Message-ID: <4eidnd9_MfclsjzZnZ2dnUVZ_tSdnZ2d@giganews.com>
Source record: 57070
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

"Hey Stupid" <my.mail@no.spam> wrote in message
news:tc%ng.1857$NP4.804@newsread1.news.pas.earthlink.net...
> "an old freind" <kb9rqz___ars@hotmail.com> wrote in
> news:1151098783.711872.84350@r2g2000cwb.googlegroups.com:
>

>>>
>>> if you a prisoner of war, CW could be invaluable in getting a message
>>> out.

Actully, POWs made use of "tap code" to communicate. Check
http://en.wikipedia.org/wiki/Tap_Code for some info.

4928. Re: Antenna tower Grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 13:44:58 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <t1d2a21jsdu13gdddeuk3cqe1t35o37f6n@4ax.com>
Source record: 57071

I have a similar situation. I have come to believe the most important thing to do is assure that all of the ground rods are connected. I have power, phone and cable service underground. I don't think I have had a significant strike since last August when I had a company install lightning rods on the house. They were very careful to ground the base of the tower to one of their rods. They installed Galvanized rods.

Another good question is whether to ground the rebar in the tower base. I elected not to worry about it but to focus on tower grounding.

I wonder about the dishes on the tower. In times past mounting them too high mad them vulnerable to terrestrial noise. The wind load they contribute can be awesome.

On Tue, 27 Jun 2006 08:48:16 -0500, "Jeff Dieterle" <jdieter@nospam.carlnet.org> wrote:

>I'm installing a 60ft self-supporting tower. It will have a vhf/uhf antenna
>with rotator and a couple of satellite dishes on it. The tower will be set
>in a concrete apprx. 4'x4'x4'. Is driving a copper clad 5/8"x8ft ground rod
>and attaching a #6cu ground wire to the tower leg sufficient.
>I live in a heavily wooded area and have lost several modems to lighting
>strikes. Now when it looks like thunder 2 states away I unplug them on my
>computers and Directv receivers.
>
John Ferrell W8CCW

4929. Antenna tower Grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 13:48:16 UTC
From: Jeff Dieterle <jdieter@nospam.carlnet.org>
Message-ID: <dd4ba$44a128d3$42498093$29962@COMTECK.COM>
Source record: 57067

I'm installing a 60ft self-supporting tower. It will have a vhf/uhf antenna with rotator and a couple of satellite dishes on it. The tower will be set in a concrete apprx. 4'x4'x4'. Is driving a copper clad 5/8"x8ft ground rod and attaching a #6cu ground wire to the tower leg sufficient.
I live in a heavily wooded area and have lost several modems to lighting strikes. Now when it looks like thunder 2 states away I unplug them on my computers and Directv receivers.

4930. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 14:01:44 UTC
From: Win <w0lz@winlyn.us>
Message-ID: <j3e2a29vk3u961nssj6ra4teh2drqmtg9d@4ax.com>
Source record: 57072

On Sun, 25 Jun 2006 12:09:18 GMT, Cecil Moore <mycall@hotmail.com>
wrote:

>Frank Alforo wrote:
>> If I touch the coil in my tuner while transmitting I get a painful rf burn.
>> But a bird can perch on my antenna wire while I transmit 100 watts and it
>> stays there seemingly without a care in the world. How come?
>
>You could probably hang by one hand from a 20 kV power
>line and be OK as long as you didn't complete a current
>path to another wire or ground.

You could probably hang by both hands if they were close together. I
would not want to try it, though.

When I worked in broadcast radio years ago, I was always amazed that
service personnal would climb the 10 kw tower hot to change lights.
They stated they could feel potential between their hands as they
climbed.

Win, wolz

4931. Re: Antenna tower Grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 14:38:29 UTC
From: Bob <warthog9@pacbell.net>
Message-ID: <Fpbog.29312$VE1.25827@newssvr14.news.prodigy.com>
Source record: 57073

What you described will do little for lightning protection except give
you a false sense of security. Surviving a direct hit requires much more
grounding and proper treatment and routing of all cables into the house.
I would highly recommend spending $20 on PolyPhaserï¿½s book of info or at
least reading the tech notes on their web site.
Bob

Jeff Dieterle wrote:
> I'm installing a 60ft self-supporting tower. It will have a vhf/uhf antenna
> with rotator and a couple of satellite dishes on it. The tower will be set
> in a concrete apprx. 4'x4'x4'. Is driving a copper clad 5/8"x8ft ground rod
> and attaching a #6cu ground wire to the tower leg sufficient.
> I live in a heavily wooded area and have lost several modems to lighting
> strikes. Now when it looks like thunder 2 states away I unplug them on my
> computers and Directv receivers.
>
>

4932. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 14:43:27 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <12a2h0h61ugoca1@corp.supernews.com>
Source record: 57074

Cecil Moore wrote:
> Gene Fuller wrote:
>
>> If you want to solve the corona question by "following the energy",
>> have at it.
>
>
> The basic question is where does the energy from corona
> come from? There should be a simple answer to that
> simple question.

Motion of one material against another. Silk/glass, dust/metal, rubber belt/metal combs.
They all transfer electrons from one object to anther.

Dave N

4933. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 15:09:50 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <-LadnZuubrOj1zzZnZ2dnUVZ_umdnZ2d@comcast.com>
Source record: 57075

David G. Nagel wrote:

> Cecil Moore wrote:
>
>> Gene Fuller wrote:
>>
>>> If you want to solve the corona question by "following the energy",
>>> have at it.
>>
>>
>>
>> The basic question is where does the energy from corona
>> come from? There should be a simple answer to that
>> simple question.
>
>
>
>
>
> Motion of one material against another. Silk/glass, dust/metal, rubber
> belt/metal combs.
> They all transfer electrons from one object to anther.
>
> Dave N

That creates charge. But what is the threshold for CORONA. Charge and corona are two different entities. Isn't corona entering the realm of plasma physics?

Your response doesn't answer the question.

4934. Re: Antenna tower Grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 15:17:38 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <4KmdneWZAf6P0TzZnZ2dnUVZ_oOdnZ2d@comcast.com>
Source record: 56976

Jeff Dieterle wrote:

> I'm installing a 60ft self-supporting tower. It will have a vhf/uhf antenna
> with rotator and a couple of satellite dishes on it. The tower will be set
> in a concrete apprx. 4'x4'x4'. Is driving a copper clad 5/8"x8ft ground rod
> and attaching a #6cu ground wire to the tower leg sufficient.
> I live in a heavily wooded area and have lost several modems to lighting
> strikes. Now when it looks like thunder 2 states away I unplug them on my
> computers and Directv receivers.
>
>

Check with your local building inspector. The National Electrical Code and your local zoning have requirements for proper grounding.

Basically, the ground at your home is the ground rod at the service panel for your electrical service.

When I installed my last tower each leg had to be connected to an 8 foot ground rod with #6 AWG. Each of the ground rods had to be interconnected. And, the total connection, towers and rods, connected to the service entrance ground by #6 AWG run EXTERNAL to the house. [Keep current OUTSIDE the house]. This met insurance requirements. But, as mentioned in another response, it does little for protection from a nearby or direct lightning strike to your radio equipment.

4935. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 15:20:58 UTC
From: Dave <W1MCE@comcast.net>
Message-ID: <__-dnS5bO4BG0TzZnZ2dnUVZ_vCdnZ2d@comcast.com>
Source record: 56977

Cecil Moore wrote:

> Gene Fuller wrote:
>
>> If you want to solve the corona question by "following the energy",
>> have at it.
>
>
> The basic question is where does the energy from corona
> come from? There should be a simple answer to that
> simple question.

I was taught that the BASIC source is the energy from the FUSION device that can be seen on a sunny day as it interacts at the atomic level with 'stuff' :-)

But, I don't think that's what you are asking!

4936. Re: Antenna tower Grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 16:05:36 UTC
From: richardharrison@webtv.net
Message-ID: <376-44A15750-972@storefull-3256.bay.webtv.net>
Source record: 56978

Jeff Dieterle wrote:
"The tower will be set in a concrete (block)
4`x4`x4`. Is driving a copper-clad 5/8"x8 ft. ground rod and sttaching a
#6 ground wire to the tower leg sufficient?"

Yes, if you have one rod and attachment run outside the tower base block for each of the tower`s legs. This has worked for me countless times with good results. Usually my ground wires were larger than #6 AWG, but I think #6 is likely large enough to work well. The tower ground must be well connected to the electrical service ground to meet code and ensure the potential difference between grounds is insignificant, even during lightning strikes.

Best regards, Richard Harrison,KB5WZI

4937. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 16:42:38 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a16094$0$14238$892e7fe2@authen.yellow.readfreenews.net>
Source record: 56979

http://en.wikipedia.org/wiki/Corona_discharge

4938. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 17:32:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <bZdog.55049$fb2.47508@newssvr27.news.prodigy.net>
Source record: 56980

Jim Kelley wrote:
> But in
> consideration of the latter, it should be apparent that if the magnitude
> of the randomly fluctuating ion current approaches that of a small
> electromagnetic current it would be impossible not to detect it.

Exactly. Whether one particle can cause a detectable noise
pulse obviously depends on the charge on the noise particle
and a number of other parameters.

But given, e.g. a coax fed dipole with the coax braid grounded,
a difference is charge is likely to occur between the elements
that is large enough to be heard.
--
73, Cecil http://www.qsl.net/w5dxp

4939. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 17:37:55 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <T1eog.55051$fb2.34324@newssvr27.news.prodigy.net>
Source record: 56981
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Slow Code wrote:
> Granting a person privileges because they're retarded is like being forced
> to hire someone because they're black.

I've been looking for a flat black colored person but have
been unable to find any. I also have not found anyone who
is white as a sheet of white paper. Alas, all I have found
are people who vary in shades of brown earthtones. By looking
at a spectrometer display, it is actually hard to tell one
from another.
--
73, Cecil http://www.qsl.net/w5dxp

4940. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 17:39:11 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <33eog.55053$fb2.28347@newssvr27.news.prodigy.net>
Source record: 56982
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Slow Code wrote:
> When hardware fails, my pencil and paper still work.

When hardware fails, you resort to messages in bottles?
--
73, Cecil http://www.qsl.net/w5dxp

4941. Re: Email this to President Bush, let's make the FCC do the right thing.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 17:40:35 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <n4eog.55056$fb2.16156@newssvr27.news.prodigy.net>
Source record: 56983
Cross-posted to:
rec.radio.amateur.antenna,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.swap,rec.radio.amateur.dx,rec.radio.cb

Slow Code wrote:
> Hey Chicken Blaster, It's 'peace', not 'piece', you retard.
> So stick that in your Crack pipe and smoke it.

Maybe he knew the same gal in Ca. that I did. We often
smoked the piece pipe.
--
73, Cecil http://www.qsl.net/w5dxp

4942. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 17:42:06 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <O5eog.55057$fb2.4949@newssvr27.news.prodigy.net>
Source record: 56984
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Slow Code wrote:
> Did a lot of Elmering too, but that's what ham radio is about. Also glad
> that we weren't outnumbered by appliance operators. With them, when a
> computer goes down it's like the end of the world.

While you, OTOH, when your hardware fails, simply drag out
the signaling flags, mirrors, and smoke signals?
--
73, Cecil http://www.qsl.net/w5dxp

4943. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 17:49:37 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Rceog.55059$fb2.42157@newssvr27.news.prodigy.net>
Source record: 56985

Gene Fuller wrote:
> Why should there be a simple answer?

Because conservation of energy is a very simple concept.
Energy either exists or it doesn't. If it doesn't, corona
is impossible.

> I already told you that is not the path I would take if I wanted to find
> a quantitative solution.

I know that already and your particular quantitative
solution explains absolutely nothing about reality so
it has to be taken on faith. Quantum physics is currently
filled with such solutions. Nobody can prove that virtual
photons exist because if virtual photons could be proved
to exist, they wouldn't be virtual anymore. That's essentially
the same argument you are using. "Forget energy reality and
place your faith in my religious mathematical model that
doesn't require any energy". Sorry, but no thanks.
--
73, Cecil http://www.qsl.net/w5dxp

4944. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 17:53:10 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <ageog.55061$fb2.20296@newssvr27.news.prodigy.net>
Source record: 56986

David G. Nagel wrote:
> Cecil Moore wrote:
>> The basic question is where does the energy from corona
>> come from? There should be a simple answer to that
>> simple question.
>
> Motion of one material against another. Silk/glass, dust/metal, rubber
> belt/metal combs.
> They all transfer electrons from one object to anther.

Does triboelectricity *always* cause corona? Of course not!
--
73, Cecil http://www.qsl.net/w5dxp

4945. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 17:57:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <5keog.55063$fb2.35918@newssvr27.news.prodigy.net>
Source record: 56987

gravity wrote:
> http://en.wikipedia.org/wiki/Corona_discharge

What happens when the charge is not enough to cause corona
or arcing? Could RF noise occur before corona occurs?
--
73, Cecil http://www.qsl.net/w5dxp

4946. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 18:30:21 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a179d6$0$16401$892e7fe2@authen.yellow.readfreenews.net>
Source record: 56988

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Rceog.55059$fb2.42157@newssvr27.news.prodigy.net...

> I know that already and your particular quantitative
> solution explains absolutely nothing about reality so
> it has to be taken on faith. Quantum physics is currently
> filled with such solutions. Nobody can prove that virtual
> photons exist because if virtual photons could be proved
> to exist, they wouldn't be virtual anymore.

surely you mean virtual particles like electron and positron pairs. i
believe these are mainly a construct to simplify calculations.

for instance, Heisenberg had a different approach than Schroedinger.

Gravity

4947. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 18:31:33 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a17a1a$0$16357$892e7fe2@authen.yellow.readfreenews.net>
Source record: 56989

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:5keog.55063$fb2.35918@newssvr27.news.prodigy.net...
> gravity wrote:
> > http://en.wikipedia.org/wiki/Corona_discharge
>
> What happens when the charge is not enough to cause corona
> or arcing? Could RF noise occur before corona occurs?

Cebik says you will get a lot of noise with high wind and dry weather. he
has a PhD (?), i don't.

Gravity

4948. AMERICA IN DANGER: Secret Torture Rooms

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 18:44:31 UTC
From: nanovmh@yahoo.com
Message-ID: <1151433871.593870.6650@j72g2000cwa.googlegroups.com>
Source record: 56990

AMERICA IN DANGER!
Secret Gas-Aerosol Rooms operated in US
(in Philadelphia, Narberth, Lower Merion, PA)
(in Wilmington and Newark, DE)
(in Hampton, Williamsburg and Richmond, VA)
AND ELSEWHERE.... details below...
Bio-aerosols used to hurt and simulate panic attacks!

Say "I care" - call Senate (202) 224-3121
House of Representatives (202) 225-3121

America in danger -
The vice is NOT impeached.
America in danger -
The public trust is breached.

Big Brother spins protection...
And fear is used to clamp.
Democracy needs action!
On which side do you stand?

Which side are you on, boys?
Which side moves you on?
Which side are you on, girls?
Which side moves you on?
(Chorus after F. Reece)

Your church is burned by haters,
The priests to go to jail?
Your dreams are cheynned by traitors,
But hope still shines through veil.

"Dust rooms" came back to gas us
With neo-Naz (or Con) embrace...
New immigrants do make US!
And not the Super-race...
V. Haryk-Bukovynsky © VMH

Looked at this?!! Go to Google/Yahoo newsGroups:

TORTURE IN USA: Secret Aerosol Rooms

US Scientist needs legal help dealing with the secret aerosols rooms
(SARs) operated illegally in Philadelphia area, Newark (DE), Hampton
and Williamsburg (VA) and other places. Highly volatile aerosols with
and without bacterial content cause dry cough, airways a...

Full text was at:
http://buyit.philly.com/findit/search/results.jsp?catId=krd_philenqda...

This was a new on-line ad placed in Philadelphia Inquirer and
Philadelphia Daily News on www.philly.com (see full text below)
It was about the secret aerosols rooms in US. One could find it by
searching "secret", say, in the ad section of philly.com.

Democracy can not function effectively without the informed public. As
a former NASA Langley scientist working in the area of nanotechnology
and nanoscale particles, I have been recently exposed to the
establishment of secret gas-aerosol rooms inside of United States, at
least in the Mid-Atlantic region (from Philadelphia to Virginia).

First, the highly irritant aerosols have surfaced at the NASA Langley
Research Center in several safety accidents. Investigations were
blocked, probably, because of lack of Congressional approval for such
financially-lucrative research at NASA. Later, these aerosols had been
encountered outside of NASA in Virginia, Delaware and Pennsylvania
.
This points out to yet another proliferation of originally-sensitive
technologies into domestic American life to hurt and harass people
without a proper oversight and much control. This amounts to torture,
extra-judicial prosecution and authoritarian intimidation tactics. The
use of such irritants and the operations of the secret gas-aerosol
rooms are gross violations of human and constitutional rights of
American citizens and various domestic and international laws.

----------Full text of an ad from
philly.com----------
TORTURE IN USA: Secret Aerosol Rooms

US Scientist needs legal help dealing with the secret aerosols rooms
(SARs) operated illegally in Philadelphia area, Newark (DE), Hampton
and Williamsburg (VA). Highly volatile aerosols with and without
bacterial content cause dry cough, airways and eyes irritation, chest
pain and inflammation. FBI and Homeland Security associates are likely
operators of SARs, while collaborators may be hotel staff and
landlords, who get financial/material or other incentives. US citizens
and kids are victims.

4949. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 18:46:11 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a17d89$0$21501$892e7fe2@authen.yellow.readfreenews.net>
Source record: 56991

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:Rceog.55059$fb2.42157@newssvr27.news.prodigy.net...

>Quantum physics is currently
> filled with such solutions.

we (engineers, physicists) use constructs to get answers. as Feynman said
"Shut up and calculate."

in some cases, we don't know the underlying mechanism for centuries. e.g.
Newtonian gravity.

Michael

4950. Small City-lot 160,75,40,20

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 19:18:53 UTC
From: gene@csl.uiuc.edu
Message-ID: <e7s0at$he9$1@news.ks.uiuc.edu>
Source record: 56992

As an older ham having lived on a small city lot in an older
neighborhood, I have only 45' x 55' of back yard for antennas.
Fortunately, my neighbor has a tall tree with a branch overhanging
my driveway. I have a nylon rope and pulley (used sling-shot) about
40' high on this branch.
I have done a considerable amount of experimenting over the years,
including wasting time on the infamous CFA (Crossed-field-antenna)
or "EH" antenna.
I recently posted my surprisingly good results with a mobile
configuration [search "Built Mobile using Lewallen "fat dipole" concept"]
and decided to see if I could emulate these results by using a
"surrogate vehicle". I happened to have a 4' x 11' sheet of aluminum
so I placed it on top of 1/2" styrofoam (non-foil) so that nothing
touches ground. (This is my substitute "truck").
The feed coax shield goes to the exact center of the aluminum sheet,
and of course the center of the coax to the insulated vertical antenna
going up toward the pulley.
This flexible pulley system conveniently accommodates 160, 75, 40
and 20 meters and works very well on all....especially causing some
head-scratching among the long established 160 meter groups who consist
mostly of high-power and optimally large antennas.
Of great help is the "Capacitive Hat" I use. Actually, it is dual
purpose, because it is a 6' diameter Hi-Q horizontal loop (Halo-type)
made from 1/2' aluminum tubing (surplus coax) with concentric tin cans
with teflon spacers as capacitor to fix-tune to resonance. A trim tab
is available when lowered. Its 5' BNC/RG58-leader is connected to about 75'
of RG58-U to reach the radio shack, and is hoisted with nylon struts
to about 35'. (I have been using it with 1KV SSB peak for about 10 yrs)
and it works very well because of decent low-angle omni-directional
pattern.
So this was very convenient to subtstitute as capacitive hat on 160, 75
and 40 meters. On 160 meters, a very Hi-Q loading coil is used at the
5' leader of the loop mentioned above. I used the same loading coil
that I described in the Mobile article mentioned above....with a few
more Hi-Q turns added. For the vertical conductor, I used the shield
of RG-8 (tied to inner conductor) for low-loss. I didn't measure the
shunt matching capacitor required to match feed point to 50 ohms,
but it was probably about 1000 Pf .
On 75 meters, I jumpered out (shorted) most of the 160 meter loading
coil for resonance, and reduced the shunt matching capacitor to
probably 400 pf, or whatever is required for very low SWR.
On 40 meters, no loading coil is used, and actually the capacitive
hat had to be lowered for verical height of only about 15' to
reach resonance, and very small shunt capacitance is needed....also

it covers the whole 40 meter band. I used RG58 shield because
I didn't have RG8 in my junk pile. I may later reduce the 160/75 to
RG58 also to reduce the weight on the small pulley that I installed
earler...I'm wondering if too much up-and-down might ruin the pulley.
I usually take my transceiver and SWR bridge out near the aluminum
plate for matching on 160 meters, which is more critical for top
performance.
As in the Mobile discussion, I still pass the feed coax (I use RG58)
with several turns thru some large ferrite toroid cores to minimize
currents from coming back on the outside of the feed coax...thus being
readily coupled to ground as loss.
My speculation about this good performace, is that the aluminum sheet
represents an infinite number of radials of equal and opposite
horizonal currents that minimize propensity to couple to earth thru
the 1/2" styrofoam insulator, and the voltages at the end of the
"radials" have very little corona-type loss as the voltage is
distributed around the sheet edges, and touch ground nowhere.

For those who find these performance claims credible, there could
be alternative ways of experimenting, such as figuring ways to make
good low-loss connection to "foil-sided" styrofoam sheet laying on
a "non-foil" insulator sheet. Or perhaps a series of aluminum-foil
spokes connected well at the center and laid on (or between) styrofoam.

4951. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 19:32:55 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1151436775.115651.18270@b68g2000cwa.googlegroups.com>
Source record: 56993
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

```
Cecil Moore wrote:
> Slow Code wrote:
> > Did a lot of Elmering too, but that's what ham radio is about. Also glad
> > that we weren't outnumbered by appliance operators. With them, when a
> > computer goes down it's like the end of the world.
>
> While you, OTOH, when your hardware fails, simply drag out
> the signaling flags, mirrors, and smoke signals?
nah bateries and wrenchs
> --
> 73, Cecil http://www.qsl.net/w5dxp
```

4952. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 21:02:52 UTC
From: Gene Fuller <W4SZzzzzzz@att.net>
Message-ID: <02hog.66497$mF2.34865@bgtnsc04-news.ops.worldnet.att.net>
Source record: 56994

Cecil Moore wrote:
> Gene Fuller wrote:
>> Why should there be a simple answer?
>
> Because conservation of energy is a very simple concept.
> Energy either exists or it doesn't. If it doesn't, corona
> is impossible.
>

Cecil,

OK, energy exists, and it is even conserved.

Do you feel better now?

73,
Gene
W4SZ

4953. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 21:04:49 UTC
From: Reg Edwards <g4fgq.regp@ZZZbtinternet.com>
Message-ID: <0amdnVFA8qn0AjzZRVnysA@bt.com>
Source record: 56996
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.equipment,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave,rec.radio.cb

Gene therapy is all the rage.

Very soon scientists will discover a cure for white disease and
everybody will be made black - and happy!
==========

4954. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 21:10:06 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <44a19de4_4@newsfeed.slurp.net>
Source record: 56995

"Win" <w0lz@winlyn.us> wrote
>>You could probably hang by one hand from a 20 kV power
>>line and be OK as long as you didn't complete a current
>>path to another wire or ground.
>
> You could probably hang by both hands if they were close together. I
> would not want to try it, though.
>
> When I worked in broadcast radio years ago, I was always amazed that
> service personnal would climb the 10 kw tower hot to change lights.
> They stated they could feel potential between their hands as they
> climbed.

But the a-c frequency is important here. The voltage gradient between adjacent hand grips for power in a conductor at AM broadcast station frequencies (the vertical antenna radiator, in this case) is a lot higher for the same conducted power than for that same span along a conductor on the 50/60 Hz a-c power grid.

RF

4955. Voip in Amateur Radio,Voip Updated Howto,

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 21:19:15 UTC
From: broadbandera@gmail.com
Message-ID: <1151443155.920698.127440@y41g2000cwy.googlegroups.com>
Source record: 56997

How this is possible, what is the standard, what systems are used, how cost..

http://flying-rugs.com/voip/VoIP-HOWTO.html

4956. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 22:05:02 UTC
From: Dee Flint <deeflint01@comcast.net>
Message-ID: <YbCdnfZrcrEoNjzZnZ2dnUVZ_s-dnZ2d@comcast.com>
Source record: 56998
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Not a very good attempt at trolling. I know absolutely no one like the
people you describe.

"J. D. B." <duffyb01@nospamfuse.net> wrote in message
news:1730d$44a129d9$d06640f9$23135@FUSE.NET...
>I know what you mean about Elmering. Many of the new hams had to Elmer the
>old CW only hams who had no idea how to operate a computer or even use all
>the great new digital modes. Some of the dinos had trouble trying to
>figure out the solid state rigs. They kept looking around for things to
>tune like it was some boat anchor tube rig - LOL!!!
>

Everyone operated solid state and semi-solid state rigs with no problems.
All knew how to operate the computers.

>
> It's amazing how the dinos can operate a key, but they can't get the hang
> of a mouse. We eventually had to give up. Can't teach the old dogs new
> tricks so the younger and newer hams used the digital modes and the old
> dinos stuck to their CW.
>

Not at our site. It's the older hams that have the expertise in connecting
the computers to the radios.

> Although the CW types were amazed how PSK31 could be copied even when you
> could not hear the other station. They admitted that you can't copy CW if
> you cannot hear it.
>
> I think we made a lot of progress on FD. Finally the dinos admitted that
> there are modes that are better and more capable than CW.
>

Any really experienced ham knows that each and every mode has conditions
under which it is "the best". Ever try to work PSK when the auroras are
running wild? Digital won't get through but CW will and occasionally even
voice will get through even though all the digital modes fail.

You must have a very weird club.

> One old guy even said we should give up on the CW testing and test new
> hams how to use a computer and the new digital modes and that was more
> relevant for today's ham radio.
>

I doubt it. Computers are nice (I use one all the time) but they are not one of the basics.

Dee D. Flint, N8UZE

4957. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 22:22:04 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <gciog.73581$4L1.14495@newssvr11.news.prodigy.com>
Source record: 56999

Gene Fuller wrote:
> OK, energy exists, and it is even conserved.
> Do you feel better now?

That's a good first step. Now where does the energy come
from that supports corona under fairweather conditions?
--
73, Cecil http://www.qsl.net/w5dxp

4958. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 22:27:11 UTC
From: Dave <noone@nowhere.com>
Message-ID: <rIOdnVzl6-dZLTzZnZ2dnUVZ_uudnZ2d@crocker.com>
Source record: 57000

either the clear air field/current or any wind.

"Cecil Moore" <mycall@hotmail.com> wrote in message
news:gciog.73581$4L1.14495@newssvr11.news.prodigy.com...
> Gene Fuller wrote:
>> OK, energy exists, and it is even conserved.
>> Do you feel better now?
>
> That's a good first step. Now where does the energy come
> from that supports corona under fairweather conditions?
> --
> 73, Cecil http://www.qsl.net/w5dxp

4959. Re: Voip in Amateur Radio,Voip Updated Howto,

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 23:07:52 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a1ba48$0$76686$39cecf19@news.twtelecom.net>
Source record: 57001

broadbandera@gmail.com wrote:

> How this is possible, what is the standard, what systems are used, how
> cost..
>
> http://flying-rugs.com/voip/VoIP-HOWTO.html
>

To begin with this is an antenna page, but we'll ignore that for now. I do happen to play with VOIP, a lot actually, so I'll go look.

Well, your link points to a page that covers a ton of subjects/mini white papers related to VOIP, none of which seems to mention amateur radio. And none of the pages are what I would consider useful. I'd say you need ask your question with more detail, or post a better link.

Meanwhile, see -

www.trixbox.org

for an open source turnkey PBX. Up in less than an hour (if you are familiar with telephony).

http://asteriskguru.com/tutorials/

for info on SW/HW which works under the Asterisk PBX. This is the SW PBX behind the trixbox distribution.

and

http://www.voip-info.org/wiki/

for the VOIP wiki.

That ought to keep you busy for a couple minutes.

Good luck.

tom
K0TAR

4960. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 23:09:21 UTC
From: Dan Andersson <dan@andersson.co.uk>
Message-ID: <fS2dnRx7P508JzzZSa8jmw@karoo.co.uk>
Source record: 57002

Frank Alforo wrote:

> If I touch the coil in my tuner while transmitting I get a painful rf
> burn. But a bird can perch on my antenna wire while I transmit 100 watts
> and it stays there seemingly without a care in the world. How come?

Frank,

Some basics.

There are two types of RF radiation, Non-ionisation and Ionisation radiation. The HF bands are non-ionisation (normally) and the damage you'll notice is generated either from High Voltage or RF Radiation.

Look in the ARRL handbook on RF safety. Different parts of the body have different frequency ranges where we have extra absorption of RF radiation.

Touching a coil in the tuner? This type of RF burns are either primary High Voltage or secondary = induced or transferred via capacitance to a metallic object within the antennas RF field.
(Why the F**K do you touch a coil in tour tuner whilst transmitting!?)
Do you put your finger in your cars cooling fan too?

The result is tingling sensations and direct proportional of the power (or stupidity), different Voltages will occur. High Q antennas can have really nasty voltages, like magnetic loops.

High Voltage gives burns and can give nasty and very deep internal damages. Read your safety regs! You are supposed to know these regs as a ham!!!

Radiated RF.

Non-ionising RF radiation can be compared to sunlight. To much RF radiation and your body (or parts) will heat up. The effects are like sunstroke or prolonged exposure to hot climate. Short term effects are nausea and fainting - like a sunstroke!

A small bird will have problem with RF Radiation but less problem with High Voltage. unless both poles are present and the stupid bird touches both. Birds (as in flying small animals) have often none or minor problems as a difference from the other type of birds, that develops to YL's and XYL's...
(No, you are not allowed culling XYL's with RF radiation!)

Ionising radiation is a different matter and is what we normally call "radioactive radiation". The energy levels of this type of radiation is much(!) higher than normal RF radiation and if you don't know you are near areas with this type of radiation, you are either trespassing or plain stupid....

Generally, higher frequencies, especially in the microwave spectra, tend to contain high energy levels. Also, bear in mind that the frequency where water absorbs RF radiation is around 2.4GHz.

If you are inside a high intensity field, get out! One of the first things to be damaged in a high RF intensity RF field is your eyes. They might coagulate and I promise - that's a bad thing and most probably irreversible. The good thing is tho' - you don't need glasses anymore...

Another thing not to do is to place your glutus maximus over a wave tube with power on --- bollocks!

Now then....

Most accidents where RF burns and RF radiation exposure occures, creates damages from a fall, not by the RF radaition itself!

People tend to climb up on ladders and on masts before they decide to get zapped... Bad idea as most of them fall down and break arms and legs at the best...

/////

No, I'm not a safety freak but I have a valid certificate for work in masts and on rooftops where there are aerials...

Cheers All

Dan / M0DFI

4961. Re: AMERICA IN DANGER: Secret Torture Rooms

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-27 23:55:05 UTC
From: Win <w0lz@winlyn.us>
Message-ID: <9tg3a2dlker2dba770dk2rdv11lbnd8ah4@4ax.com>
Source record: 57003

Interesting! This post originated from from a Lower Merion, PA
library, via Google. It was posted to groups in many other countries,
mostly in Europe.

I am not sure what the agenda is.

Win

On 27 Jun 2006 11:44:31 -0700, nanovmh@yahoo.com wrote:

>AMERICA IN DANGER!
>Secret Gas-Aerosol Rooms operated in US
>(in Philadelphia, Narberth, Lower Merion, PA)
>(in Wilmington and Newark, DE)
>(in Hampton, Williamsburg and Richmond, VA)
> AND ELSEWHERE.... details below...
>Bio-aerosols used to hurt and simulate panic attacks!
>
>Say "I care" - call Senate (202) 224-3121
>House of Representatives (202) 225-3121
>
> America in danger -
>The vice is NOT impeached.
> America in danger -
>The public trust is breached.
>
>Big Brother spins protection...
> And fear is used to clamp.
>Democracy needs action!
> On which side do you stand?
>
> Which side are you on, boys?
> Which side moves you on?
> Which side are you on, girls?
> Which side moves you on?
> (Chorus after F. Reece)
>
>Your church is burned by haters,
> The priests to go to jail?
>Your dreams are cheynned by traitors,
> But hope still shines through veil.
>
>"Dust rooms" came back to gas us
> With neo-Naz (or Con) embrace...
>New immigrants do make US!

> And not the Super-race...
> V. Haryk-Bukovynsky ï¿½ VMH
>
>
>Looked at this?!! Go to Google/Yahoo newsGroups:
>----------
>TORTURE IN USA: Secret Aerosol Rooms
>
>US Scientist needs legal help dealing with the secret aerosols rooms
>(SARs) operated illegally in Philadelphia area, Newark (DE), Hampton
>and Williamsburg (VA) and other places. Highly volatile aerosols with
>and without bacterial content cause dry cough, airways a...
>
>Full text was at:
>http://buyit.philly.com/findit/search/results.jsp?catId=krd_philenqda...
>
>
>This was a new on-line ad placed in Philadelphia Inquirer and
>Philadelphia Daily News on www.philly.com (see full text below)
>It was about the secret aerosols rooms in US. One could find it by
>searching "secret", say, in the ad section of philly.com.
>
>Democracy can not function effectively without the informed public. As
>a former NASA Langley scientist working in the area of nanotechnology
>and nanoscale particles, I have been recently exposed to the
>establishment of secret gas-aerosol rooms inside of United States, at
>least in the Mid-Atlantic region (from Philadelphia to Virginia).
>
>First, the highly irritant aerosols have surfaced at the NASA Langley
>Research Center in several safety accidents. Investigations were
>blocked, probably, because of lack of Congressional approval for such
>financially-lucrative research at NASA. Later, these aerosols had been
>encountered outside of NASA in Virginia, Delaware and Pennsylvania
>.
>This points out to yet another proliferation of originally-sensitive
>technologies into domestic American life to hurt and harass people
>without a proper oversight and much control. This amounts to torture,
>extra-judicial prosecution and authoritarian intimidation tactics. The
>use of such irritants and the operations of the secret gas-aerosol
>rooms are gross violations of human and constitutional rights of
>American citizens and various domestic and international laws.
>
>----------Full text of an ad from
>philly.com----------
> TORTURE IN USA: Secret Aerosol Rooms
>
>US Scientist needs legal help dealing with the secret aerosols rooms
>(SARs) operated illegally in Philadelphia area, Newark (DE), Hampton
>and Williamsburg (VA). Highly volatile aerosols with and without
>bacterial content cause dry cough, airways and eyes irritation, chest

>pain and inflammation. FBI and Homeland Security associates are likely
>operators of SARs, while collaborators may be hotel staff and
>landlords, who get financial/material or other incentives. US citizens
>and kids are victims.

4962. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 00:13:57 UTC
From: hot-ham-and-cheese@hotmail.com
Message-ID: <1151453637.198126.54600@d56g2000cwd.googlegroups.com>
Source record: 57004
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

```
Cecil Moore wrote:
> Slow Code wrote:
> > Did a lot of Elmering too, but that's what ham radio is about. Also glad
> > that we weren't outnumbered by appliance operators. With them, when a
> > computer goes down it's like the end of the world.
>
> While you, OTOH, when your hardware fails, simply drag out
> the signaling flags, mirrors, and smoke signals?
> --
> 73, Cecil http://www.qsl.net/w5dxp

He's not just Slow Code, he's slow everything, especially on the uptake.
```

4963. Re: Voip in Amateur Radio,Voip Updated Howto,

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 00:32:15 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <j6kog.4635$uo.4188@trnddc07>
Source record: 57005

<broadbandera@gmail.com> wrote in message
news:1151443155.920698.127440@y41g2000cwy.googlegroups.com...
>
> How this is possible, what is the standard, what systems are used, how
> cost..
>
> http://flying-rugs.com/voip/VoIP-HOWTO.html
>

Try google -- Skype -- It cost no $$

Try google -- Wikipedia -- search POIP

4964. Anyone here think they would pay for a map like this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 00:49:02 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <2mkog.58280$9c6.45638@dukeread11>
Source record: 57006
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

I have created some software to create a radial map to help you know
where to point your antenna. A sample of the map can be seen here...
http://www.thewishzone.com/cdw/hamradio/RadialMap.gif

Pretty much any part of this map can be customized from the start and
end point of the radials how many degrees apart each one is, having
multiple sets of radials, such as a set every 1 degree from 97 to 100
miles out with an other set from 5 to 200 miles every 15 degrees. Any
number of sets of any length can be done. As well as circles of any
size. All very easy, just supply the center lat long. I can also print
the map any size up to 42" wide/high. I've never printed had any paper
that big on this printer but I do know it will take paper that big. I
would have got a 36" wide printer but it was too slow, and this one is
faster. With the software I am developing creating the map is very easy
but obviously printing it isn't cheap.

--
Chris W
KE5GIX

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give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

4965. Re: Voip in Amateur Radio,Voip Updated Howto,

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 01:07:00 UTC
From: Jerry Martes <j.jmartes@verizon.net>
Message-ID: <UCkog.18117$Gh.13050@trnddc02>
Source record: 57007

"Jerry Martes" <j.jmartes@verizon.net> wrote in message
news:j6kog.4635$uo.4188@trnddc07...
>
> <broadbandera@gmail.com> wrote in message
> news:1151443155.920698.127440@y41g2000cwy.googlegroups.com...
>>
>> How this is possible, what is the standard, what systems are used, how
>> cost..
>>
>> http://flying-rugs.com/voip/VoIP-HOWTO.html
>>
>
> Try google -- Skype -- It cost no $$
>
> Try google -- Wikipedia -- search POIP Or VOIP
>
>

4966. Re: Anyone here think they would pay for a map like this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 02:23:46 UTC
From: Ben Jackson <ben@ben.com>
Message-ID: <slrnea3q1h.23t.ben@saturn.home.ben.com>
Source record: 57008
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

On 2006-06-28, Chris W <1qazse4@cox.net> wrote:
> I have created some software to create a radial map to help you know
> where to point your antenna. A sample of the map can be seen here...
> http://www.thewishzone.com/cdw/hamradio/RadialMap.gif

I'm sure if you started charging for those you'd be hearing from
Delorme...

--
Ben Jackson
<ben@ben.com>
http://www.ben.com/

4967. Re: Anyone here think they would pay for a map like this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 02:51:57 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <i9mog.58284$9c6.23693@dukeread11>
Source record: 57009
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

Ben Jackson wrote:
> On 2006-06-28, Chris W <1qazse4@cox.net> wrote:
>
>>I have created some software to create a radial map to help you know
>>where to point your antenna. A sample of the map can be seen here...
>>http://www.thewishzone.com/cdw/hamradio/RadialMap.gif
>
>
> I'm sure if you started charging for those you'd be hearing from
> Delorme...

I'm sure I would too, that's why I am trying to contact them to see what they have to say first. I may just print up one for me and a few for some friends for the cost of using the printer and not sell them at all but if it is something a lot of people would find useful and it can be done for a reasonable price, then I will try to see if I can sell them.

--
Chris W
KE5GIX

Gift Giving Made Easy
Get the gifts you want &
give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

4968. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 03:52:02 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <saKdnYeE7-tCYTzZnZ2dnUVZ_tydnZ2d@adelphia.com>
Source record: 57010

Looking at the thing, I suspect that it is an OCF dipole. It isn't very clear, but since they have a "L1" and an "L2", that gives us one clue. Most center fed dipoles don't need an L1 and L2, because they assume center fed, inherently 2 equal sides. Notice that they also say "this is not a kit". That is a disclaimer that they put on their other OCF antennas. Finally that 135 foot total length is typical of an OCF dipole.

Dis ting is quackin' like a big ol' OCF duck!

And as such it should be a serviceable antenna.

Funny that some people are dissing BuxComm on technical matters in this case..... ;^)

- 73 de Mike KB3EIA -

4969. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 05:15:55 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a2112f$0$16365$892e7fe2@authen.yellow.readfreenews.net>
Source record: 57011

"Mike Coslo" <mremovethiscoslo@adelphia.net> wrote in message
news:saKdnYeE7-tCYTzZnZ2dnUVZ_tydnZ2d@adelphia.com...
> Looking at the thing, I suspect that it is an OCF dipole. It isn't very
> clear, but since they have a "L1" and an "L2", that gives us one clue.
> Most center fed dipoles don't need an L1 and L2, because they assume
> center fed, inherently 2 equal sides. Notice that they also say "this is
> not a kit". That is a disclaimer that they put on their other OCF
> antennas. Finally that 135 foot total length is typical of an OCF dipole.

OCF = off center fed?

i suspect the sides are equal in length. L1 and L2 are just designations
used in drawings to denote an element of some length.

Buxcomm sells a Windom too.

>
> Dis ting is quackin' like a big ol' OCF duck!
>
> And as such it should be a serviceable antenna.
>
> Funny that some people are dissing BuxComm on technical matters in this
> case..... ;^)

well the coax feed kind of sucks.

Gravity

>
> - 73 de Mike KB3EIA -

4970. Re: low power FM TX and multiple antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 05:40:14 UTC
From: "g. beat"
Message-ID: <t72dnSX0Xozaiz_ZnZ2dnUVZ_vmdnZ2d@comcast.com>
Source record: 57012

"MRW" <mr.whatever@gmail.com> wrote in message
news:1151335477.317846.142060@r2g2000cwb.googlegroups.com...
> Greetings.
>
> If we are using one low power FM transmitter and we want to use a 2-bay
> FM antenna configuration, will using a power splitter at the
> transmitter output be sufficient?
>
> The FM TX utilizes a type N connection to the FM antennas. .... So if I
> split the power output and just have two outputs to handle each of the
> two antennas, then that would work right?
>
> What other considerations should I have in mind? Do I need to worry
> about phasing issues?
>
> Thanks!
>

MRW -

Start with Radio World - for industry info
http://www.rwonline.com/

You need to understand more about antennas. Please look at (and learn from)
the methods used by commercial broadcasters - that have been at this for
decades -- they have taken the road of "least cost" and best economics".

2-bay and 4-bay designs are common is FM broadcasting and even used in the
Land Mobile Radio (LMR) Service. Amateur radio references can be invaluable
in learning the proper theory.
http://members.tripod.com/AMN92/cp_ant.htm

gb

4971. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 05:47:18 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <3s44a2dbc1aqbvgph1o7a3b60h0rkpt6o2@4ax.com>
Source record: 57013

On Tue, 27 Jun 2006 23:52:02 -0400, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:

>Looking at the thing, I suspect that it is an OCF dipole. It isn't very
>clear, but since they have a "L1" and an "L2", that gives us one clue.
>Most center fed dipoles don't need an L1 and L2, because they assume
>center fed, inherently 2 equal sides. Notice that they also say "this is
>not a kit". That is a disclaimer that they put on their other OCF
>antennas. Finally that 135 foot total length is typical of an OCF dipole.
>
> Dis ting is quackin' like a big ol' OCF duck!
>
> And as such it should be a serviceable antenna.
>
> Funny that some people are dissing BuxComm on technical matters in this
>case..... ;^)
>

Mike, we (you and I both) aren't sure of the detail, and that in
itself speaks heaps for the product information.

Whilst you have drawn a clue that the unspecified L1 and L2 suggest
that they are unequal, I drew a clue from the description of a
component as "centre insulator with eyehook", and if that product
detail is accurate (and we take the ordinary meaning of the word
centre to be a point that is equidistant from the extremities) then it
suggests centre fed.

I still think on balance of the published info, it is represented as
an "all-band dipole" on "80 through 10 meters" and appears to be a
135' centre fed dipole with a balun (of unknown type) and recommended
RG8/X feedline. Such a configuration will be likely to have high
system losses on at least some of the bands with practical lengths of
feedline as discussed earlier in the thread by several people.

Owen
--

4972. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 05:55:26 UTC
From: Frank Alforo <falforo@dslextreme.com>
Message-ID: <12a46fctai8ge4@corp.supernews.com>
Source record: 57014

Dan Andersson wrote:

> (Why the F**K do you touch a coil in tour tuner whilst transmitting!?)
> Do you put your finger in your cars cooling fan too?

I reached over to adjust the capacitor not realizing that the set screw that fixes the capacitor knob onto the capacitor shaft stuck up beyond the surface of the knob shaft. My finger reached over and touched the end of the screw as I keyed down.

My free hand was not grabbing a ground wire. I was sitting in an upholstered chair which was on a rug which was on a wood floor.

And no, I do not put my finger in my car's cooling fan.

Frank A.

4973. Re: Anyone here think they would pay for a map like this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 06:46:41 UTC
From: Brian Howie <brian@nospam.demon.co.uk>
Message-ID: <ViuJD+BRXioEFwrl@b-howie.demon.co.uk>
Source record: 57015
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

In message <2mkog.58280$9c6.45638@dukeread11>, Chris W <1qazse4@cox.net>
writes
>I have created some software to create a radial map to help you know
>where to point your antenna. A sample of the map can be seen here...
>http://www.thewishzone.com/cdw/hamradio/RadialMap.gif
>
>Pretty much any part of this map can be customized from the start and
>end point of the radials how many degrees apart each one is, having
>multiple sets of radials, such as a set every 1 degree from 97 to 100
>miles out with an other set from 5 to 200 miles every 15 degrees. Any
>number of sets of any length can be done. As well as circles of any
>size. All very easy, just supply the center lat long. I can also print
>the map any size up to 42" wide/high. I've never printed had any paper
>that big on this printer but I do know it will take paper that big. I
>would have got a 36" wide printer but it was too slow, and this one is
>faster. With the software I am developing creating the map is very
>easy but obviously printing it isn't cheap.

There's a free utillity called Pizza that does something like this.
What I like about it is , you can import your antenna polar diagram from
NEC etc and overlay that as well as the compass bearing. OK it's just a
line drawing map , but good enough for most purposes.

http://tonnesoftware.com/pizza.html

73 Brian GM4DIJ
--
Brian Howie

4974. Please help me

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 06:54:04 UTC
From: BVU <joshibibhu@gmail.com>
Message-ID: <1151477644.090822.307360@x69g2000cwx.googlegroups.com>
Source record: 57016
Cross-posted to: rec.radio.amateur.antenna,misc.jobs.resumes,tw.bbs.sci.physics

hello,
I am computer engineer from Nepal. I am currently working on a project about power flow analysis. Now I am having problem with procedure to calculate load flow. By reading some books I have used newton raphson method to calculate voltage drop at different bus of a very simple 5 bus system with no transformer on it. Now the problem is with the calculation of phase angle which is very large about 1000 degree and also negative sometimes . Also the convergence did not occur for large system with about 20 bus.

Again, today boss called me and said, the project which i find quiet confusing..
goes like this,
We have to bring power from source to the transformer and from there it is carried by transmission line. At regular interval on transmission line there is node(I think its a bus) from where it goes to the city.Now i have to develop a software which will simulate and give the voltage drop at each node and also need to calculate the maximum voltage that the transformer should give which the load can handle without "Black Out". He says to take data about cable including its length from feedeer and develop software.
I am having very big problem with this one.....so i want to know the detail step wise procedure to solve it so that i can convert it to programming code.If possible please send me the Algorithm or pseudo code to solve it.

4975. Help needed with EZNEC.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 10:52:50 UTC
From: VE2CJW <ve2cjw@videotron.ca.nospam>
Message-ID: <uctog.86240$8i2.453420@wagner.videotron.net>
Source record: 57017

Hello. Does anyone here have an Eznec file to model an Alpha-Delta DXCC multiband antenna? I would like to model it to understand why it works so well here. With only 100 watts, I frequently bust pileups on 20 meters SSB with central European stations from the suburbs of Montreal. Thanks for any help.

73 de VE2CJW
Mike in Candiac.

4976. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 11:19:06 UTC
From: "J. D. B." <duffyb01@nospamfuse.net>
Message-ID: <38e86$44a26625$d06640f9$7459@FUSE.NET>
Source record: 57018
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Dee, I guess you need to get out more and make some friends. These
people are all around.

Dee Flint wrote:
> Not a very good attempt at trolling. I know absolutely no one like the
> people you describe.
>
> "J. D. B." <duffyb01@nospamfuse.net> wrote in message
> news:1730d$44a129d9$d06640f9$23135@FUSE.NET...
>> I know what you mean about Elmering. Many of the new hams had to Elmer the
>> old CW only hams who had no idea how to operate a computer or even use all
>> the great new digital modes. Some of the dinos had trouble trying to
>> figure out the solid state rigs. They kept looking around for things to
>> tune like it was some boat anchor tube rig - LOL!!!
>>
>
> Everyone operated solid state and semi-solid state rigs with no problems.
> All knew how to operate the computers.
>
>> It's amazing how the dinos can operate a key, but they can't get the hang
>> of a mouse. We eventually had to give up. Can't teach the old dogs new
>> tricks so the younger and newer hams used the digital modes and the old
>> dinos stuck to their CW.
>>
>
> Not at our site. It's the older hams that have the expertise in connecting
> the computers to the radios.
>
>> Although the CW types were amazed how PSK31 could be copied even when you
>> could not hear the other station. They admitted that you can't copy CW if
>> you cannot hear it.
>>
>> I think we made a lot of progress on FD. Finally the dinos admitted that
>> there are modes that are better and more capable than CW.
>>
>
> Any really experienced ham knows that each and every mode has conditions
> under which it is "the best". Ever try to work PSK when the auroras are
> running wild? Digital won't get through but CW will and occasionally even
> voice will get through even though all the digital modes fail.
>
> You must have a very weird club.

>
>> One old guy even said we should give up on the CW testing and test new
>> hams how to use a computer and the new digital modes and that was more
>> relevant for today's ham radio.
>>
>
> I doubt it. Computers are nice (I use one all the time) but they are not
> one of the basics.
>
> Dee D. Flint, N8UZE
>
>

4977. Re: Antenna tower Grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 13:40:54 UTC
From: "David G. Nagel" <nagel@core.com>
Message-ID: <12a51n7av41ct36@corp.supernews.com>
Source record: 57020

Jeff;

Some years ago I destroyed a log of expensive ($1,000 each) IBM computer boards because I failed to install grounding devices at the exit from one building and the entrance of another building when I installed remote terminals for the company computer. There was a significant voltage difference between the two buildings even though they were only twenty feet apart and both were well grounded by themselves. I still had to install a bonding wire between them.

You will encounter the same situation between your tower and shack. A few feet of copper is cheap insurance. Three hundred fifty feet will generate significant voltage that may or may not cause you a problem.

Dave WD9BDZ

Jeff Dieterle wrote:
> The tower will be 350ft from my house's service entrance ground. After
> getting you-all's feedback I make sure all the rebar in the tower base is
> electrically connected and the rebar is attached to a perimeter ground
> system with a rod at each leg. I'm also researching what type of lighting
> protecting devices I will install on the coax, this may attach to my service
> entrance ground.
>
> But I can't see the need to connect the tower grounding system to my service
> entrance ground when it's 350ft away. Was meeting the insurance requirements
> part of a spec. written in the policy regarding residential towers ? What
> section of the NEC deals with tower grounding ?
>
>
>
> "Dave" <W1MCE@comcast.net> wrote in message
> news:4KmdneWZAf6P0TzZnZ2dnUVZ_oOdnZ2d@comcast.com...
>
>>Jeff Dieterle wrote:
>>
>>
>>>I'm installing a 60ft self-supporting tower. It will have a vhf/uhf
>>>antenna with rotator and a couple of satellite dishes on it. The tower
>>>will be set in a concrete apprx. 4'x4'x4'. Is driving a copper clad
>>>5/8"x8ft ground rod and attaching a #6cu ground wire to the tower leg
>>>sufficient.
>>>I live in a heavily wooded area and have lost several modems to lighting
>>>strikes. Now when it looks like thunder 2 states away I unplug them on my
>>>computers and Directv receivers.

>>
>>Check with your local building inspector. The National Electrical Code and
>>your local zoning have requirements for proper grounding.
>>
>>Basically, the ground at your home is the ground rod at the service panel
>>for your electrical service.
>>
>>When I installed my last tower each leg had to be connected to an 8 foot
>>ground rod with #6 AWG. Each of the ground rods had to be interconnected.
>>And, the total connection, towers and rods, connected to the service
>>entrance ground by #6 AWG run EXTERNAL to the house. [Keep current OUTSIDE
>>the house]. This met insurance requirements. But, as mentioned in another
>>response, it does little for protection from a nearby or direct lightning
>>strike to your radio equipment.
>>
>
>
>

4978. Re: Antenna tower Grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 13:52:37 UTC
From: w8ji@akorn.net
Message-ID: <1151502757.935048.235820@b68g2000cwa.googlegroups.com>
Source record: 57021

Jeff Dieterle wrote:
> I'm installing a 60ft self-supporting tower. It will have a vhf/uhf antenna
> with rotator and a couple of satellite dishes on it. The tower will be set
> in a concrete apprx. 4'x4'x4'. Is driving a copper clad 5/8"x8ft ground rod
> and attaching a #6cu ground wire to the tower leg sufficient.
> I live in a heavily wooded area and have lost several modems to lighting
> strikes. Now when it looks like thunder 2 states away I unplug them on my
> computers and Directv receivers.

Jeff,

You really need to go to professional sources and not listen to advice from random internet responses on safety issues. There is so much folklore and pure bunk that is accepted as fact that it can really get you in trouble.

Look at the polyphaser web site and read their techninal notes carefully.

The single most important thing is cable routing and bonding of equipment to common points.

Most lightning damage people get isn't from tower hits, it is from hits on power lines that flow back through the house to grounds!

Every cable entering the house should be grounded to ONE common point. That includes telco, cable TV, power mains, your station ground, and all your cables entering the house. That is a NEC requirement!! That's the single most important thing you can do to prevent damage.

Everything leaving the tower should leave at the tower bottom, and be grounded to the tower at the tower bottom, and that point shuld be grounded to earth. That's the single most impotant thing you can do at the tower.

73 Tom

4979. Re: Antenna tower Grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 14:18:35 UTC
From: Jeff Dieterle <jdieter@nospam.carlnet.org>
Message-ID: <b0bb4$44a2816d$424980ad$20494@COMTECK.COM>
Source record: 57019

The tower will be 350ft from my house's service entrance ground. After getting you-all's feedback I make sure all the rebar in the tower base is electrically connected and the rebar is attached to a perimeter ground system with a rod at each leg. I'm also researching what type of lighting protecting devices I will install on the coax, this may attach to my service entrance ground.

But I can't see the need to connect the tower grounding system to my service entrance ground when it's 350ft away. Was meeting the insurance requirements part of a spec. written in the policy regarding residential towers ? What section of the NEC deals with tower grounding ?

"Dave" <W1MCE@comcast.net> wrote in message
news:4KmdneWZAf6P0TzZnZ2dnUVZ_oOdnZ2d@comcast.com...
> Jeff Dieterle wrote:
>
>> I'm installing a 60ft self-supporting tower. It will have a vhf/uhf
>> antenna with rotator and a couple of satellite dishes on it. The tower
>> will be set in a concrete apprx. 4'x4'x4'. Is driving a copper clad
>> 5/8"x8ft ground rod and attaching a #6cu ground wire to the tower leg
>> sufficient.
>> I live in a heavily wooded area and have lost several modems to lighting
>> strikes. Now when it looks like thunder 2 states away I unplug them on my
>> computers and Directv receivers.
>
> Check with your local building inspector. The National Electrical Code and
> your local zoning have requirements for proper grounding.
>
> Basically, the ground at your home is the ground rod at the service panel
> for your electrical service.
>
> When I installed my last tower each leg had to be connected to an 8 foot
> ground rod with #6 AWG. Each of the ground rods had to be interconnected.
> And, the total connection, towers and rods, connected to the service
> entrance ground by #6 AWG run EXTERNAL to the house. [Keep current OUTSIDE
> the house]. This met insurance requirements. But, as mentioned in another
> response, it does little for protection from a nearby or direct lightning
> strike to your radio equipment.
>

4980. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 14:27:12 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1151504361_59017@sp6iad.superfeed.net>
Source record: 57022

gravity wrote:
> "Cecil Moore" <mycall@hotmail.com> wrote in message
> news:Sfdmg.153105$F_3.132648@newssvr29.news.prodigy.net...
>> Gene Fuller wrote:
>>> How do you know there is no corona discharge?
>> Because under passive fairweather conditions, corona
>> requires 13 magnitudes more current than is available
>> in nature. Please see my other posting.
>>
>> And just a comment on your seeming innocent question
>> above. You seem to be asking me to prove that there
>> is no corona discharge when proving a negative is
>> impossible. The onus of proof is upon the one(s) who
>> assert(s) the positive position.
>>
>> W8JI asserted that there is a corona discharge and
>> you agreed with him. Therefore, the onus of proof
>> is upon you. Please prove that corona can exist
>> on a receiving antenna under passive fairweather
>> conditions.
>>
>> People are free to assert negatives at any time
>> without any proof. For instance, if I assert that
>> you cannot dunk a basketball, my assertion will
>> remain true until you prove that you can dunk
>> a basketball.
>
> you can restate most negatives as positives. an example of this is a
> logical statement, in which case the contrapositive is always true. if P,
> then Q. if not Q, then not P.

Afraid you have this wrong, gravity.

Consider:

P=today is my birthday
Q=I will receive a present

If (today is my birthday) then (I will
receive a present).

If (I will receive a present) then MAYBE
today is my birthday and MAYBE it is not.

73,

Chuck

another example is Demorgan's theorem in set
> theory and electronics.
>
> if you say that general relativity is wrong, the burden is on you to prove
> otherwise.
>
> if the corona discharge theory is held by 90% of physicists and engineers,
> then anyone with a charged particle theory (a minority viewpoint) must do
> experimental verification or formulate a theoretical model.
>
> in this case, i think that both Cecil and others should cite peer reviewed
> articles.
>
> Gravity
>
>

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4981. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 14:39:39 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Lwwog.124221$dW3.15866@newssvr21.news.prodigy.com>
Source record: 57023

chuck wrote:
> If (I will receive a present) then MAYBE today is my birthday and MAYBE
> it is not.

Expanding:

"If I receive a present today, then today is my birthday."

Assuming no present is received today, that statement is
true by definition. :-)
--
73, Cecil http://www.qsl.net/w5dxp

4982. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 14:49:07 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1151505676_59209@sp6iad.superfeed.net>
Source record: 57024

Cecil Moore wrote:
> chuck wrote:
>> If (I will receive a present) then MAYBE today is my birthday and
>> MAYBE it is not.
>
> Expanding:
>
> "If I receive a present today, then today is my birthday."
>
> Assuming no present is received today, that statement is
> true by definition. :-)

Sorry, Cecil. I'm not following you on that.

Whether the statement P implies Q is
true has nothing to do with whether P is
true.

My point was that P implies Q does NOT
mean if ~Q then not ~P.

73,

Chuck

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----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4983. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 15:22:29 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1151508149.703489.203370@x69g2000cwx.googlegroups.com>
Source record: 57025
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

```
J. D. B. wrote:
> Dee, I guess you need to get out more and make some friends. These
> people are all around.
>
> Dee Flint wrote:
> > Not a very good attempt at trolling. I know absolutely no one like the
> > people you describe.
indeed Dee does seem to have a vvery limtied circle
```

4984. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 15:25:45 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1151507871_59233@sp6iad.superfeed.net>
Source record: 56926

chuck wrote:

> My point was that P implies Q does NOT mean if ~Q then not ~P.
>

Well, I screwed up again.

Of course it does.

Mixed up converse and contrapositive and
sorry for the diversion.

73,

Chuck

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4985. Re: Antenna tower Grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 15:28:51 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <lexog.33632$EX2.21190@bignews5.bellsouth.net>
Source record: 56927

"Bob" <warthog9@pacbell.net> wrote in message
news:Fpbog.29312$VE1.25827@newssvr14.news.prodigy.com...
> What you described will do little for lightning protection except give you
> a false sense of security. Surviving a direct hit requires much more
> grounding and proper treatment and routing of all cables into the house. I
> would highly recommend spending $20 on PolyPhaser's book of info or at
> least reading the tech notes on their web site.
> Bob
>
>
> Jeff Dieterle wrote:
>> I'm installing a 60ft self-supporting tower. It will have a vhf/uhf
>> antenna with rotator and a couple of satellite dishes on it. The tower
>> will be set in a concrete apprx. 4'x4'x4'. Is driving a copper clad
>> 5/8"x8ft ground rod and attaching a #6cu ground wire to the tower leg
>> sufficient.
>> I live in a heavily wooded area and have lost several modems to lighting
>> strikes. Now when it looks like thunder 2 states away I unplug them on my
>> computers and Directv receivers.

The Polyphaser book was the main source of data used by the company I work to redo the grouding at many of its sites. Most sites that were being knocked off the air nearly every time a storm came through have never had such an outage since the new grounding was installed. $20 bucks well spent. Installing the new grounds will cost a lot more. One of the big impovements was to use low inductance braided cable run all the way from the air terminals at the top of the towers to the ground rods/system. Prior to this the tower was grounded by a cable connecting the base of the tower to the ground system. Much more was done which included grounding coax and and control cables where they entered the building. This was done prior to the modification but there was now a much larger emphasis on LOW INDUCTANCE connections. Typical change made. Coax shields were attached to ground at the point they enter the building prior to the mod. This connection is still there but made through copper straps instead of cables and the coax is also grounded just before it makes a 90 degree bend to leave the tower and enter the building. Going from several lighting related outages a year to none in several years is a big improvement.

4986. Re: low power FM TX and multiple antennas?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 16:29:01 UTC
From: "J. Mc Laughlin" <jcm@power-net.net>
Message-ID: <12a5bfv2thkhr92@corp.supernews.com>
Source record: 56928

Dear MRW:
Do not do what you are proposing - assuming that I understand what you are proposing.

It sounds as if you propose to connect in parallel, near the transmitter, two transmission lines with each transmission line running to one bay of a two bay antenna. You are not too clear about what you propose.

It is very difficult to have two transmission lines that are many wavelengths long (as expected) that are so equal (including the termination impedance) as to have the phases of the two signals at the antennas be equal (as required by the normal two bay antenna). It is possible to maintain close phase equality with short pieces of coax that are near the antennas.

Tell us more about what you wish to do. Mac

"MRW" <mr.whatever@gmail.com> wrote in message news:1151335477.317846.142060@r2g2000cwb.googlegroups.com...
> Greetings.
>
> If we are using one low power FM transmitter and we want to use a 2-bay
> FM antenna configuration, will using a power splitter at the
> transmitter output be sufficient?
>
> The FM TX utilizes a type N connection to the FM antennas. .... So if I
> split the power output and just have two outputs to handle each of the
> two antennas, then that would work right?
>
> What other considerations should I have in mind? Do I need to worry
> about phasing issues?
>
> Thanks!
>

4987. Re: Anyone here think they would pay for a map like this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 16:44:31 UTC
From: Backfire Bob <Backfire@twicepipes.org>
Message-ID: <Plyog.124253$dW3.106662@newssvr21.news.prodigy.com>
Source record: 56929
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

"Chris W" <1qazse4@cox.net> wrote in message
news:2mkog.58280$9c6.45638@dukeread11...
>I have created some software to create a radial map to help you know where
>to point your antenna. A sample of the map can be seen here...

> Chris W
> KE5GIX

You created what? Don't think so....
look up "plagiarize" or theft.....

Besides that, almost ANYONE can read and use a compass/map.
Why should they BUY yours?

4988. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 17:09:55 UTC
From: Dan Richardson <k6mhe>
Message-ID: <2kd5a2djg2e651n4bpe6o7c4e0vvdkn93v@4ax.com>
Source record: 56930

On Wed, 28 Jun 2006 05:47:18 GMT, Owen Duffy <owen@no.where> wrote:

>Mike, we (you and I both) aren't sure of the detail, and that in
>itself speaks heaps for the product information.

Owen,

I found some information for this atnenna at

www.stroobandt.com/antennas/windom/windom.html

On the design attributed K4BT showing the dimensions to be:

L1= 13.4 meters (43.965 ft.)
L2= 27.1 meters (88.915 ft.)

Regards,
Danny, K6MHE

4989. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 17:42:22 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <2czog.73746$4L1.65729@newssvr11.news.prodigy.com>
Source record: 56931

chuck wrote:
> Cecil Moore wrote:
>> "If I receive a present today, then today is my birthday."
>>
>> Assuming no present is received today, that statement is
>> true by definition. :-)
>
> Sorry, Cecil. I'm not following you on that.

Neither do a lot of other people. Here's the truth table
for an: (If A then B) = C logical statement

A B C

True True True
True False False
False True True
False False True

If the if-portion of an if/then statement is false,
then the entire statement is true, by definition.

For instance, this is a logically true statement.

If I were ever to play in the NBA, then I would be a superstar.

Since the A portion can never be true, the entire statement
is true, by definition.

In your earlier example, *both of these statements are true*
if you didn't receive a present. Only if you actually received
a present can one be true and the other false.

1. If I receive a present, it's my birthday.
2. If I receive a present, it's not my birthday.
--
73, Cecil http://www.qsl.net/w5dxp

4990. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 17:53:15 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a2c2b4$0$79617$892e7fe2@authen.yellow.readfreenews.net>
Source record: 56932

"chuck" <nospam@nospam.net> wrote in message
news:1151504361_59017@sp6iad.superfeed.net...

> > you can restate most negatives as positives. an example of this is a
> > logical statement, in which case the contrapositive is always true. if
P,
> > then Q. if not Q, then not P.
>
> Afraid you have this wrong, gravity.
>
> Consider:
>
> P=today is my birthday
> Q=I will receive a present
>
> If (today is my birthday) then (I will
> receive a present).
>
> If (I will receive a present) then MAYBE
> today is my birthday and MAYBE it is not.

that's not the contrapositive. that's the converse, i think.

Gravity

4991. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 17:58:21 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a2c3e6$0$16444$892e7fe2@authen.yellow.readfreenews.net>
Source record: 56933

contraposition in logic.

http://en.wikipedia.org/wiki/Contrapositive

affirmation of the consequent.

http://www.fallacyfiles.org/afthecon.html

Gravity

4992. Re: Younger Sister Caught In BathTub With Hidden Cam... 4295 [1/2]

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 18:36:44 UTC
From: Jimmie D <jimmiedee@bellsouth.net>
Message-ID: <R_zog.26661$gv2.14295@bignews3.bellsouth.net>
Source record: 56934
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.boatanchors,rec.radio.amateur.digital

"Ralph Mowery" <rmowery28146@earthlink.net> wrote in message
news:NH8Of.6206$F56.949@newsread3.news.atl.earthlink.net...
>
> "Butch Magee" <lynyrd@cableone.net> wrote in message
> news:120i0qb41ith58e@corp.supernews.com...
>> Ron H wrote:
>> > I certainly hope everyone in this list is smart enough to NEVER open a
> file
>> > with the .scr extension!
>> >
>> >
>> > Carry On!
>> > K3PID
>> > Ron H.
>> >
>> >
>> I don't mind my ignorance showing,...what is an .scr ext?
>>
>> KF5DE
>
> The .scr is usually the screen saver program extentions. They are
> exicutable programs just like the .exe programs. They can take over the
> computer and do almost anything. Good way to pass on a virus or worm or
> anything if the programmer does not want to really use them as a screen
> saver.
>
>
My daughter opened one on her computer, All the text looked like Klingon
after that. Had to reload Windows to fix it but that didnt end the problem.
After the reload and I thought all was fixed I discovered all the shortcuts
to internet sites took me to the same place, an extremely graphic gay porn
site. Good thing my daughter was in school at the time and even more
fortunate that I decided to click around on some of her internet shortcuts.
The first thing she does when she gets in from school is get on the
internet.

4993. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 19:34:37 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1151522804_1387@sp6iad.superfeed.net>
Source record: 56935

Cecil Moore wrote:
> Gene Fuller wrote:
>> OK, energy exists, and it is even conserved.
>> Do you feel better now?
>
> That's a good first step. Now where does the energy come
> from that supports corona under fairweather conditions?

If the antenna is a vertical,
ungrounded, uncharged wire, it is a
conductor in an electric field (the
fairweather field).

The free charges in the antenna will
move so as to cancel the fairweather
field inside the antenna wire.

At the top of the antenna, there will be
a concentration of negative charge. If a
single strand of wire sticks out, that
concentration could be sufficient to
ionize the air and cause corona.

If the corona starting voltage is
typically 30 kV/cm radius, then a tiny
wire could ionize the air at only
300volts or so for a 0.01 cm radius.

http://home.earthlink.net/~jimlux/hv/corona.htm
Corona

Based on that, it would seem the
fairweather field can support corona
formation by itself.

If a charged particle now strikes the
uncharged antenna, free charges will
redistribute themselves to maintain no
net electric field inside the conductor.

The antenna's charge will increase until
it exceeds some breakdown threshold.
This process seems functionally similar
to that due to the existence of the
fairweather field, although either could
exist independently.

The question then seems to be whether the redistribution of charges that occurs when charged particles strike the antenna causes a current in the antenna which is detected by the receiver as noise. I believe this is the question Cecil has been posing.

It occurs to me that the current due to charge redistribution could be rather significant if numerous particles are striking the antenna in a short time interval. Even a corona discharge will cause a redistribution of free charges that may show up as a detectable current at the receiver. This would be a different effect from the noise generating property of the corona itself.

Any thoughts?

Chuck

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4994. Re: Anyone here think they would pay for a map like this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 20:27:30 UTC
From: Chris W <1qazse4@cox.net>
Message-ID: <TCBog.58318$9c6.48315@dukeread11>
Source record: 56936
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

Backfire Bob wrote:

> You created what? Don't think so....
> look up "plagiarize" or theft.......
>
> Besides that, almost ANYONE can read and use a compass/map.
> Why should they BUY yours?

Get a grip, of course I will have an agreement with the supplier of the basic map data. Forgive me for thinking that others mind find useful something I find useful.

I made this map for me and a few friends. If no one else wants one, then so be it. I just thought, since it is now very easy for me to make more, centered on any point, I would ask. Someone in another forum mentioned that they could tell you where any town with in 100+ miles of them was with in 15 degrees. If you are the same, I doubt you would find this map very useful. As for me, there are over 400 towns with in 100 miles of me and I have no idea where most of them are. With this map I can quickly look and see how far and in what direction places are from me.

--
Chris W
KE5GIX

Gift Giving Made Easy
Get the gifts you want &
give the gifts they want
One stop wish list for any gift,
from anywhere, for any occasion!
http://thewishzone.com

4995. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 21:02:59 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1151528106_2169@sp6iad.superfeed.net>
Source record: 56937

chuck wrote:

>
> If the corona starting voltage is typically 30 kV/cm radius, then a tiny
> wire could ionize the air at only 300volts or so for a 0.01 cm radius.
>
> http://home.earthlink.net/~jimlux/hv/corona.htm
> Corona

As an update, I see that Llewellyn (not
W7EL) in 1975 established experimentally
that for a point radius of 0.01 cm, a
corona will be formed with fields of
only 100 V/m. These results differ a bit
from what would be predicted by
Paschen's curve.

73,
Chuck

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http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

4996. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 21:12:04 UTC
From: Owen Duffy <owen@no.where>
Message-ID: <ruq5a21mjnbbscbk7bvvfpqt2sgnu0ah1f@4ax.com>
Source record: 56938

On Wed, 28 Jun 2006 10:09:55 -0700, Dan Richardson
<k6mhe<at>k6mhe<dot>com> wrote:

>On Wed, 28 Jun 2006 05:47:18 GMT, Owen Duffy <owen@no.where> wrote:
>
>>Mike, we (you and I both) aren't sure of the detail, and that in
>>itself speaks heaps for the product information.
>
>Owen,
>
>I found some information for this atnenna at
>
> www.stroobandt.com/antennas/windom/windom.html
>
>On the design attributed K4BT showing the dimensions to be:
>
> L1= 13.4 meters (43.965 ft.)
>L2= 27.1 meters (88.915 ft.)
>

Buxcomm's site does list a large number of antennas that are described as "Windom" antennas, but the one that is subject of this thread is not explicitly described in the product information as a Windom of any kind, or as an off-centre fed dipole of any kind.

There is an apparent desire on the part of some to construct the case that the subject antenna is a Windom on the basis of:
- designation of L1 and L2 on the diagram, although there are no values stated to show that they are unequal;
- that elsewhere K4BT has described "coax fed Windoms".

There is nothing conclusive on the diagram at http://www.commparts.com/catalog/images/products/8010ABD.gif to suggest that this is a "coax fed Windom", though some infer that is the case because of the L1, L2 designation though not values are shown.

I argue that designation of a key component separating L1 and L2 as a "center insulatore and eye hook" has more value than the undimensioned L1, L2 designation.

What is becoming clearer, is that on the basis of the information published on the commercial web site for this antenna, the buyer cannot be sure of just what he is getting, much less how well it might perform.

Owen
--

4997. Re: Please help me

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 22:20:46 UTC
From: Dave <noone@nowhere.com>
Message-ID: <Ao6dneZUIrzEmT7ZnZ2dnUVZ_vCdnZ2d@crocker.com>
Source record: 56939
Cross-posted to: rec.radio.amateur.antenna,misc.jobs.resumes,tw.bbs.sci.physics

besides being in the wrong group....
you REALLY don't want to develop this algorithm from scratch. lay off all
your programmers and buy the power system engineers a program called EMTP
from http://www.emtp.com/ or if your utility joins EPRI at
http://www.epri.com/ they have some tools for that type of calculation also.
and both of those sources KNOW how that type of system works and can really
help.

"BVU" <joshibibhu@gmail.com> wrote in message
news:1151477644.090822.307360@x69g2000cwx.googlegroups.com...
> hello,
> I am computer engineer from Nepal. I am currently working on a
> project about power flow analysis. Now I am having problem with
> procedure to calculate load flow. By reading some books I have used
> newton raphson method to calculate voltage drop at different bus of a
> very simple 5 bus system with no transformer on it. Now the problem is
> with the calculation of phase angle which is very large about 1000
> degree and also negative sometimes . Also the convergence did not occur
> for large system with about 20 bus.
>
> Again, today boss called me and said, the project which i find quiet
> confusing..
> goes like this,
> We have to bring power from source to the transformer and from there it
> is carried by transmission line. At regular interval on transmission
> line there is node(I think its a bus) from where it goes to the
> city.Now i have to develop a software which will simulate and give the
> voltage drop at each node and also need to calculate the maximum
> voltage that the transformer should give which the load can handle
> without "Black Out". He says to take data about cable including its
> length from feedeer and develop software.
> I am having very big problem with this one.......so i want to know the
> detail step wise procedure to solve it so that i can convert it to
> programming code.If possible please send me the Algorithm or pseudo
> code to solve it.
>

4998. Re: Antenna tower Grounding

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 22:42:40 UTC
From: John Ferrell <johnferrell@sprintmail.com>
Message-ID: <q516a2p24pe616p0a3bbcqo961gibdi0pv@4ax.com>
Source record: 56940

I have no argument with getting professional advice. I hired pro's to
install the lightning rods. They were in agreement that I should
always provide a protective ground other than my equipment. They had
no problem with the fact that I went through the basement ceiling with
a number 6 wire atttaching a cable TV ground to the power panel
ground. It was the shortest route.

When I lived in a house with copper plumbing the ground system ran all
over the houe.

On 28 Jun 2006 06:52:37 -0700, w8ji@akorn.net wrote:

>
>You really need to go to professional sources and not listen to advice
>from random internet responses on safety issues. There is so much
>folklore and pure bunk that is accepted as fact that it can really get
>you in trouble.
>
>Look at the polyphaser web site and read their techninal notes
>carefully.
>
John Ferrell W8CCW

4999. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 23:12:04 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <81Eog.30606$VE1.22586@newssvr14.news.prodigy.com>
Source record: 56941

chuck wrote:
> Based on that, it would seem the fairweather field can support corona
> formation by itself.

Even though the fairweather current is 13 magnitudes below
the corona current?

> It occurs to me that the current due to charge redistribution could be
> rather significant if numerous particles are striking the antenna in a
> short time interval.

Maybe aggravated by one element of the dipole being grounded
and the other floating?
--
73, Cecil http://www.qsl.net/w5dxp

5000. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-28 23:44:14 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1151537784_2697@sp6iad.superfeed.net>
Source record: 56942

Cecil Moore wrote:
> chuck wrote:
>> Based on that, it would seem the fairweather field can support corona
>> formation by itself.
>
> Even though the fairweather current is 13 magnitudes below
> the corona current?

My understanding is that a strong
electric field ionizes the air and leads
to formation of a corona. I imagine with
a sufficiently strong field, the corona
current could be in the pA range. At
least I can't imagine why not.

>
>> It occurs to me that the current due to charge redistribution could be
>> rather significant if numerous particles are striking the antenna in a
>> short time interval.
>
> Maybe aggravated by one element of the dipole being grounded
> and the other floating?

I can't comment on that, Cecil. I was
trying to keep the geometry simple with
a single vertical wire. A grounded
vertical wire in the fairweather field
will acquire a charge and charged
particles striking it should not change
the charge on it, but they will cause a
redistribution. That redistribution
doubtless produces a magnetic field as
additional charges flow to/from the earth.

It's a fascinating problem.

73,

Chuck

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

5001. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 00:08:03 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e7v5om$a9n$1@news.service.uci.edu>
Source record: 56943

chuck wrote:

> Cecil Moore wrote:
>
>> chuck wrote:
>>
>>> Based on that, it would seem the fairweather field can support corona
>>> formation by itself.
>>
>>
>> Even though the fairweather current is 13 magnitudes below
>> the corona current?
>
>
> My understanding is that a strong electric field ionizes the air and
> leads to formation of a corona. I imagine with a sufficiently strong
> field, the corona current could be in the pA range. At least I can't
> imagine why not.

Here's an exercise that might add some realism. Calculate the amount
of charge a 14 awg 40 meter dipole antenna at 35 feet would have to
accumulate in order to generate a strong enough field to cause a
corona discharge. (Arcing at the feedpoint doesn't count.)

73, ac6xg

5002. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 00:47:48 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1151541591_3149@sp6iad.superfeed.net>
Source record: 56944

Jim Kelley wrote:
> chuck wrote:
>
>> Cecil Moore wrote:
>>
>>> chuck wrote:
>>>
>>>> Based on that, it would seem the fairweather field can support
>>>> corona formation by itself.
>>>
>>>
>>> Even though the fairweather current is 13 magnitudes below
>>> the corona current?
>>
>>
>> My understanding is that a strong electric field ionizes the air and
>> leads to formation of a corona. I imagine with a sufficiently strong
>> field, the corona current could be in the pA range. At least I can't
>> imagine why not.
>
> Here's an exercise that might add some realism. Calculate the amount of
> charge a 14 awg 40 meter dipole antenna at 35 feet would have to
> accumulate in order to generate a strong enough field to cause a corona
> discharge. (Arcing at the feedpoint doesn't count.)
>
> 73, ac6xg
>

OK. So you understand that it is not
necessary that a conductor be charged in
order for a corona to be formed. It
needs only to be placed in a
sufficiently strong electric field.

But if there is no external field
assumed, then the required charge on the
wire would be that which will produce
the requisite field intensity at some
chosen place on the wire.

The "pointier" the place you choose, the
smaller the necessary net charge. Any
charge on the wire will be distributed
over a real wire but concentrated where
there are sharp points.

As the radius of curvature of a "point"
on the wire, such as a dust particle
stuck to it, approaches zero, the
quantity of charge necessary to cause a
corona becomes quite small. That's about
as close as I can come to realism, Jim. ;-)

73,
Chuck

5003. Cheer up Mark, Phonys don't need HF to work DX.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 00:50:25 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <ltFog.337$vt2.60@newsread2.news.pas.earthlink.net>
Source record: 56945
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Just call a foreign country on your cell phone. If you ask them to 'Please QSL', you might have to tell whoever it is you talk to what that means.

If they won't QSL, we can use your phone bill as proof of contact, but it's not as good as a real QSL card because how do we know that you didn't just babble into someone's answering machine for a minute or two.

The first DX award no-codes can try for and is easy and cheap to get is the CAC Award (Called all Continents) and is very similar to the WAC (Worked all Continents.) If you're really really new to radio, you might want to start with CAS first. (Called all States)

sc

5004. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 00:50:29 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <ptFog.340$vt2.338@newsread2.news.pas.earthlink.net>
Source record: 56948
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Cecil Moore <mycall@hotmail.com> wrote in
news:33eog.55053$fb2.28347@newssvr27.news.prodigy.net:

> Slow Code wrote:
>> When hardware fails, my pencil and paper still work.
>
> When hardware fails, you resort to messages in bottles?

Yes, I can get the message there quicker in a bottle, than the time it
takes an appliance operator to get their rig back from a repair shop.

SC

5005. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 00:50:31 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <rtFog.341$vt2.147@newsread2.news.pas.earthlink.net>
Source record: 56947
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"J. D. B." <duffyb01@nospamfuse.net> wrote in
news:1730d$44a129d9$d06640f9$23135@FUSE.NET:

> I know what you mean about Elmering. Many of the new hams had to Elmer
> the old CW only hams who had no idea how to operate a computer or even
> use all the great new digital modes. Some of the dinos had trouble
> trying to figure out the solid state rigs. They kept looking around for
> things to tune like it was some boat anchor tube rig - LOL!!!
>
> It's amazing how the dinos can operate a key, but they can't get the
> hang of a mouse. We eventually had to give up. Can't teach the old dogs
> new tricks so the younger and newer hams used the digital modes and the
> old dinos stuck to their CW.
>
> Although the CW types were amazed how PSK31 could be copied even when
> you could not hear the other station. They admitted that you can't copy
> CW if you cannot hear it.
>
> I think we made a lot of progress on FD. Finally the dinos admitted that
> there are modes that are better and more capable than CW.
>
> One old guy even said we should give up on the CW testing and test new
> hams how to use a computer and the new digital modes and that was more
> relevant for today's ham radio.

I know you're right.

They where doing great until the computers crashed then the new hams looked at us old hams, blank stares on their faces wondering what to do. They thought Field day was over at the point. Then us dino's took over and showed them what ham radio really was. Some nickle extra's even said they were going practice building their code skills again. They saw you can work stations on code that you can't work on phone or PSK31. We taught them how to solder on PL-259s and tune portable antenna & trim wire antennas.

We laughed when they lifted up the tri-bander and then had to take it down again to connect up the coax. That was funny.

SC

5006. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 00:50:33 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <ttFog.342$vt2.30@newsread2.news.pas.earthlink.net>
Source record: 56946
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Cecil Moore <mycall@hotmail.com> wrote in
news:O5eog.55057$fb2.4949@newssvr27.news.prodigy.net:

> Slow Code wrote:
>> Did a lot of Elmering too, but that's what ham radio is about. Also
>> glad that we weren't outnumbered by appliance operators. With them,
>> when a computer goes down it's like the end of the world.
>
> While you, OTOH, when your hardware fails, simply drag out
> the signaling flags, mirrors, and smoke signals?

I'll get back to you on that one. I've never been in a situation where I
couldn't produce RF and commmunicate. When it finally does happen, I'll
let you know if it was flags, mirrors, or smoke signals.

sc

5007. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 00:50:34 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <utFog.343$vt2.213@newsread2.news.pas.earthlink.net>
Source record: 56949
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

hot-ham-and-cheese@hotmail.com wrote in
news:1151453637.198126.54600@d56g2000cwd.googlegroups.com:

>
> Cecil Moore wrote:
>> Slow Code wrote:
>> > Did a lot of Elmering too, but that's what ham radio is about. Also
>> > glad that we weren't outnumbered by appliance operators. With them,
>> > when a computer goes down it's like the end of the world.
>>
>> While you, OTOH, when your hardware fails, simply drag out
>> the signaling flags, mirrors, and smoke signals?
>> --
>> 73, Cecil http://www.qsl.net/w5dxp
>
> He's not just Slow Code, he's slow everything, especially on the uptake.

Yes, but I'm still faster than you.

sc

5008. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 00:53:44 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <sv86a214hu6l1t859vdk3tt6500b2o0ico@4ax.com>
Source record: 56951

On Wed, 28 Jun 2006 17:08:03 -0700, Jim Kelley <jwkelley@uci.edu>
wrote:

>Calculate the amount of charge

Hi Jim,

3.3 ï¿½C (21 tera-electrons) ï¿½3dB

73's
Richard Clark, KB7QHC

5009. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 00:54:17 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1151542457.119548.62740@75g2000cwc.googlegroups.com>
Source record: 56950
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Slow Code wrote:
> Just call a foreign country on your cell phone.
get help

5010. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 01:03:01 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1151542981.336695.158850@x69g2000cwx.googlegroups.com>
Source record: 56952
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

```
Slow Code wrote:
> hot-ham-and-cheese@hotmail.com wrote in
> news:1151453637.198126.54600@d56g2000cwd.googlegroups.com:
>

> > He's not just Slow Code, he's slow everything, especially on the uptake.
>
>
>
> Yes, but I'm still faster than you.
nope
>
> sc
```

5011. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 01:03:42 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1151543022.821676.161840@x69g2000cwx.googlegroups.com>
Source record: 56953
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Slow Code wrote:

>
> Yes, I can get the message there quicker in a bottle, than the time it
> takes an appliance operator to get their rig back from a repair shop.
get help

>
> SC

5012. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 01:05:21 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1151542645_3157@sp6iad.superfeed.net>
Source record: 56954

Richard Clark wrote:
> On Wed, 28 Jun 2006 17:08:03 -0700, Jim Kelley <jwkelley@uci.edu>
> wrote:
>
>> Calculate the amount of charge
>
> Hi Jim,
>
> 3.3 ï¿½C (21 tera-electrons) ï¿½3dB
>
> 73's
> Richard Clark, KB7QHC

Those numbers are classified!

5013. Re: Anyone here think they would pay for a map like this?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 01:18:31 UTC
From: Henry <noone@nowhere.net>
Message-ID: <wTFog.9485$Ud4.4659@bignews1.bellsouth.net>
Source record: 56955
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

geesh,just contact US geological service....any office.....I dealt with one
in denver and what ever US map you want is available for a few bucks

Henry

"Chris W" <1qazse4@cox.net> wrote in message
news:2mkog.58280$9c6.45638@dukeread11...
>I have created some software to create a radial map to help you know where
>to point your antenna. A sample of the map can be seen here...
> http://www.thewishzone.com/cdw/hamradio/RadialMap.gif
>
> Pretty much any part of this map can be customized from the start and end
> point of the radials how many degrees apart each one is, having multiple
> sets of radials, such as a set every 1 degree from 97 to 100 miles out
> with an other set from 5 to 200 miles every 15 degrees. Any number of
> sets of any length can be done. As well as circles of any size. All very
> easy, just supply the center lat long. I can also print the map any size
> up to 42" wide/high. I've never printed had any paper that big on this
> printer but I do know it will take paper that big. I would have got a 36"
> wide printer but it was too slow, and this one is faster. With the
> software I am developing creating the map is very easy but obviously
> printing it isn't cheap.
>
>
>
> --
> Chris W
> KE5GIX
>
> Gift Giving Made Easy
> Get the gifts you want &
> give the gifts they want
> One stop wish list for any gift,
> from anywhere, for any occasion!
> http://thewishzone.com

5014. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 01:59:49 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <4s6dnekOK9iOqT7ZnZ2dnUVZ_sOdnZ2d@adelphia.com>
Source record: 56956

Owen Duffy wrote:
> On Wed, 28 Jun 2006 10:09:55 -0700, Dan Richardson
> <k6mhe<at>k6mhe<dot>com> wrote:
>
>
>>On Wed, 28 Jun 2006 05:47:18 GMT, Owen Duffy <owen@no.where> wrote:
>>
>>
>>>Mike, we (you and I both) aren't sure of the detail, and that in
>>>itself speaks heaps for the product information.
>>
>>Owen,
>>
>>I found some information for this atnenna at
>>
>>www.stroobandt.com/antennas/windom/windom.html
>>
>>On the design attributed K4BT showing the dimensions to be:
>>
>>L1= 13.4 meters (43.965 ft.)
>>L2= 27.1 meters (88.915 ft.)
>>
>
>
> Buxcomm's site does list a large number of antennas that are described
> as "Windom" antennas, but the one that is subject of this thread is
> not explicitly described in the product information as a Windom of any
> kind, or as an off-centre fed dipole of any kind.
>
> There is an apparent desire on the part of some to construct the case
> that the subject antenna is a Windom on the basis of:
> - designation of L1 and L2 on the diagram, although there are no
> values stated to show that they are unequal;
> - that elsewhere K4BT has described "coax fed Windoms".
>
> There is nothing conclusive on the diagram at
> http://www.commparts.com/catalog/images/products/8010ABD.gif to
> suggest that this is a "coax fed Windom", though some infer that is
> the case because of the L1, L2 designation though not values are
> shown.
>
> I argue that designation of a key component separating L1 and L2 as a
> "center insulatore and eye hook" has more value than the undimensioned
> L1, L2 designation.

>
> What is becoming clearer, is that on the basis of the information
> published on the commercial web site for this antenna, the buyer
> cannot be sure of just what he is getting, much less how well it might
> perform.

Of course someone could do an end run around us by just calling BuxComm
and getting the real scoop. 8^)

I don't doubt that someone might come to a different conclusion, but I
think my reasoning is pretty sound. I modeled an equal length version of
this in 4nec, and it just doesn't work very well. OTOH, turn it into an
OCF dipole, and it is a different story.

BuxComm has no need to sell an antenna as "multiband" when it isn't,
and when they have other comparably priced models that will work.

- 73 de Mike KB3EIA --

5015. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:18:41 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <5MGog.30641$VE1.2858@newssvr14.news.prodigy.com>
Source record: 56957
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Slow Code wrote:
> Cecil Moore <mycall@hotmail.com> wrote in
>> While you, OTOH, when your hardware fails, simply drag out
>> the signaling flags, mirrors, and smoke signals?
>
> I'll get back to you on that one. I've never been in a situation where I
> couldn't produce RF and commmunicate. When it finally does happen, I'll
> let you know if it was flags, mirrors, or smoke signals.

Oh yeah, I forgot, only the SSB portion of a transceiver's
electronics ever fails. :-)
--
73, Cecil http://www.qsl.net/w5dxp

5016. Re: The Google Hypothesis of Guru Elevation - The Guroogle

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:20:24 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <VtCdnaZcxLx4pT7ZnZ2dnUVZ_tSdnZ2d@adelphia.com>
Source record: 56958

Richard Clark wrote:
> On Wed, 21 Jun 2006 17:50:31 GMT, "Tom Donaly"
> <dtdonaly@sbcglobal.net> wrote:
>
>
>>Notice how he used the Mensa Society post to destroy the discourse?
>
>
> Hi Tom,
>
> I notice past membership is one of those unprovable positive facts.
>
>
>>there are,
>>alas, people who are soft-minded enough not only to take him seriously,
>>but to agree with him as well.
>
>
> So rare so that Cecil has to offer they support him in secret email.
> Even this is about hit counts when your thumb is on the scale. ;-)
>
>
>>I think Roy had the right idea when
>>he plonked him. The rest of us should probably follow Roy's example.
>
>
> What's the fun in that? Pick one point and drill down; ignore the
> side topics and drill down; discard the tailored citations and drill
> down. Everyone of these drillings leads to a dry hole.
> win-lose (classic American competition)
>
> And yes, Mike, busting on Cecil is one pursuit here, we will leave it
> to you to judge if it is indiscriminant and across the board, or fits
> to threads dominated 9:1 by your Rodney King of the antennas.

Well, sometimes dummies like me get caught up in actually thinking that
it is serious discussion. I should know better!

I would suggest that a lot of the antagonists do a little better
though. All the air goes out of an argument when they just bust on
insignificant details.

I had a fellow like that who worked for me once. He wouldn't pay much
attention to the conversation at hand. But he wanted to show he was
involved. So every once in a while he would latch on to a couple words I

was saying, and argue past me on the irrelevantly picked up point.

I guess that is okay in newsgroups. It is the sort of thing that gets you gone in the workplace.. 8^)

I make the mistake of using these groups as a learning tool, when perhaps they are really here as mental professional wrestling?

- 73 de Mike KB3EIA -

> Gimme another baton! I broke mine!
> (classic American entertainment)
>
> 73's
> Richard Clark, KB7QHC

5017. dipole made of two cb whips?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:21:09 UTC
From: inagaddadavida@webtv.net
Message-ID: <10362-44A33915-1280@storefull-3251.bay.webtv.net>
Source record: 56968

i understand that a monopole antenna is an illusion. the element is reflected by ground or a ground plane or a counterpoise and is effectively a two element set up anyway. so, somebody take me to school on this; what about a ground plane whip such as a cb antenna with another identical whip mounted upside down below it? would the bottom whip appear equal to a ground plane and allow the antenna to radiate as it was intended to? would this work in an application where a decent rf ground cannot be achieved? or where consistent antenna characteristics are needed regardless of location or environment?

5018. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:21:14 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a3391b$0$1004$39cecf19@news.twtelecom.net>
Source record: 56959
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Slow Code wrote:

>>
>>He's not just Slow Code, he's slow everything, especially on the uptake.
>
>
>
>
> Yes, but I'm still faster than you.
>
> sc
>
>

And won't tell you who he is. Chicken Shit seems an appropriate
description.

Although I'd bet I can find out who it is. I won't bother, but it isn't
all that hard if you know the ISP business. And since that's what I do
for a living...

tom
K0TAR

5019. Re: AMERICA IN DANGER: Secret Torture Rooms

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:22:04 UTC
From: George <forvmman@msn.com>
Message-ID: <1151547724.175336.35690@b68g2000cwa.googlegroups.com>
Source record: 56960

Win wrote:
> Interesting! This post originated from from a Lower Merion, PA
> library, via Google. It was posted to groups in many other countries,
> mostly in Europe.
>
> I am not sure what the agenda is.
>
> Win
George responds: Isn't it clear? Stir the world into a frenzy of anti-American responses. In effect, it is propaganda based on prevarication. In other words, psychological warfare as opposed to what the New York Times is doing, which some might call treason. The "hate America crowd" is alive and well and playing to a willing if not naive audience in Europe. I suppose we are lucky there wasn't an insulting cartoon of some Middle Eastern religious icon included with the post and attributed to the Washington Times!
George
>
> On 27 Jun 2006 11:44:31 -0700, nanovmh@yahoo.com wrote:
>
> >AMERICA IN DANGER!
> >Secret Gas-Aerosol Rooms operated in US
> >(in Philadelphia, Narberth, Lower Merion, PA)
> >(in Wilmington and Newark, DE)
> >(in Hampton, Williamsburg and Richmond, VA)
> > AND ELSEWHERE.... details below...
> >Bio-aerosols used to hurt and simulate panic attacks!
> >
> >Say "I care" - call Senate (202) 224-3121
> >House of Representatives (202) 225-3121
> >
> > America in danger -
> >The vice is NOT impeached.
> > America in danger -
> >The public trust is breached.
> >
> >Big Brother spins protection...
> > And fear is used to clamp.
> >Democracy needs action!
> > On which side do you stand?
> >
> > Which side are you on, boys?
> > Which side moves you on?
> > Which side are you on, girls?

> > Which side moves you on?
> > (Chorus after F. Reece)
> >
> >Your church is burned by haters,
> > The priests to go to jail?
> >Your dreams are cheynned by traitors,
> > But hope still shines through veil.
> >
> >"Dust rooms" came back to gas us
> > With neo-Naz (or Con) embrace...
> >New immigrants do make US!
> > And not the Super-race...
> > V. Haryk-Bukovynsky © VMH
> >
> >
> >Looked at this?!! Go to Google/Yahoo newsGroups:
> >----------
> >TORTURE IN USA: Secret Aerosol Rooms
> >
> >US Scientist needs legal help dealing with the secret aerosols rooms
> >(SARs) operated illegally in Philadelphia area, Newark (DE), Hampton
> >and Williamsburg (VA) and other places. Highly volatile aerosols with
> >and without bacterial content cause dry cough, airways a...
> >
> >Full text was at:
> >http://buyit.philly.com/findit/search/results.jsp?catId=krd_philenqda...
> >
> >
> >This was a new on-line ad placed in Philadelphia Inquirer and
> >Philadelphia Daily News on www.philly.com (see full text below)
> >It was about the secret aerosols rooms in US. One could find it by
> >searching "secret", say, in the ad section of philly.com.
> >
> >Democracy can not function effectively without the informed public. As
> >a former NASA Langley scientist working in the area of nanotechnology
> >and nanoscale particles, I have been recently exposed to the
> >establishment of secret gas-aerosol rooms inside of United States, at
> >least in the Mid-Atlantic region (from Philadelphia to Virginia).
> >
> >First, the highly irritant aerosols have surfaced at the NASA Langley
> >Research Center in several safety accidents. Investigations were
> >blocked, probably, because of lack of Congressional approval for such
> >financially-lucrative research at NASA. Later, these aerosols had been
> >encountered outside of NASA in Virginia, Delaware and Pennsylvania
> >.
> >This points out to yet another proliferation of originally-sensitive
> >technologies into domestic American life to hurt and harass people
> >without a proper oversight and much control. This amounts to torture,
> >extra-judicial prosecution and authoritarian intimidation tactics. The
> >use of such irritants and the operations of the secret gas-aerosol

> >rooms are gross violations of human and constitutional rights of
> >American citizens and various domestic and international laws.
> >
> >-------------------Full text of an ad from
> >philly.com--------------------------
> > TORTURE IN USA: Secret Aerosol Rooms
> >
> >US Scientist needs legal help dealing with the secret aerosols rooms
> >(SARs) operated illegally in Philadelphia area, Newark (DE), Hampton
> >and Williamsburg (VA). Highly volatile aerosols with and without
> >bacterial content cause dry cough, airways and eyes irritation, chest
> >pain and inflammation. FBI and Homeland Security associates are likely
> >operators of SARs, while collaborators may be hotel staff and
> >landlords, who get financial/material or other incentives. US citizens
> >and kids are victims.

5020. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:24:21 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <pRGog.30643$VE1.588@newssvr14.news.prodigy.com>
Source record: 56961

chuck wrote:
> My understanding is that a strong electric field ionizes the air and
> leads to formation of a corona.

Yes, but according to the references, fairweather conditions are
not a strong enough electric field to cause corona in the absence
of some other energy source.

> I can't comment on that, Cecil. I was trying to keep the geometry simple
> with a single vertical wire.

Well, a single vertical wire would have its ground plane grounded
so it might also build up a charge between the inner coax conductor
and outer conductor from wind-driven charged particles. But wouldn't
a ball on top reduce the possibility of corona just like it does
on other vertical antennas?
--
73, Cecil http://www.qsl.net/w5dxp

5021. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:26:06 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <2TGog.30644$VE1.18256@newssvr14.news.prodigy.com>
Source record: 56964

Jim Kelley wrote:
> Here's an exercise that might add some realism. Calculate the amount of
> charge a 14 awg 40 meter dipole antenna at 35 feet would have to
> accumulate in order to generate a strong enough field to cause a corona
> discharge. (Arcing at the feedpoint doesn't count.)

And make it #14 solid wire with rounded ends. I suspect the coax
connector would arc long before any corona appeared. In fact,
corona should be visible at night.
--
73, Cecil http://www.qsl.net/w5dxp

5022. Re: Cheer up Mark, Phonys don't need HF to work DX.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:26:08 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a33a40$0$6154$39cecf19@news.twtelecom.net>
Source record: 56962
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Slow Code wrote:

> Just call a foreign country on your cell phone. If you ask them to
> 'Please QSL', you might have to tell whoever it is you talk to what that
> means.
>
> If they won't QSL, we can use your phone bill as proof of contact, but
> it's not as good as a real QSL card because how do we know that you didn't
> just babble into someone's answering machine for a minute or two.
>
> The first DX award no-codes can try for and is easy and cheap to get is
> the CAC Award (Called all Continents) and is very similar to the WAC
> (Worked all Continents.) If you're really really new to radio, you might
> want to start with CAS first. (Called all States)
>
>
> sc

Time Warner, huh. Good friends of mine. I get 50 MB/s from them.

5023. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:26:22 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151547982.022419.93890@p79g2000cwp.googlegroups.com>
Source record: 56963
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Cecil Moore wrote:
> Slow Code wrote:
> > Cecil Moore <mycall@hotmail.com> wrote in
> >> While you, OTOH, when your hardware fails, simply drag out
> >> the signaling flags, mirrors, and smoke signals?
> >
> > I'll get back to you on that one. I've never been in a situation where I
> > couldn't produce RF and commmunicate. When it finally does happen, I'll
> > let you know if it was flags, mirrors, or smoke signals.
>
> Oh yeah, I forgot, only the SSB portion of a transceiver's
> electronics ever fails. :-)
nah the Am and Fm parts fail too

Only the CW never fails
> --
> 73, Cecil http://www.qsl.net/w5dxp

5024. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:28:12 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151548092.875921.224440@x69g2000cwx.googlegroups.com>
Source record: 56965
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring wrote:
> Slow Code wrote:
>

> > sc
>
> Time Warner, huh. Good friends of mine. I get 50 MB/s from them.
he is just a troll and coward

5025. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:31:17 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a33b75$0$6154$39cecf19@news.twtelecom.net>
Source record: 56966
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

an_old_friend wrote:

> Tom Ring wrote:
>
>>Slow Code wrote:
>>
>
>
>>>sc
>>
>>Time Warner, huh. Good friends of mine. I get 50 MB/s from them.
>
> he is just a troll and coward
>

Yes, but I will find out who he is. Just for fun.

Probably an extra that got canned for something or other. ;)

tom
K0TAR

5026. Re: AMERICA IN DANGER: Secret Torture Rooms

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:33:29 UTC
From: George <forvmman@msn.com>
Message-ID: <1151548409.644031.195910@75g2000cwc.googlegroups.com>
Source record: 56967

George wrote:
> Win wrote:
> > Interesting! This post originated from from a Lower Merion, PA
> > library, via Google. It was posted to groups in many other countries,
> > mostly in Europe.
> >
> > I am not sure what the agenda is.
> >
> > Win
> George responds: Isn't it clear? Stir the world into a frenzy of
> anti-American responses. In effect, it is propaganda based on
> prevarication. In other words, psychological warfare as opposed to what
> the New York Times is doing, which some might call treason. The "hate
> America crowd" is alive and well and playing to a willing if not naive
> audience in Europe. I suppose we are lucky there wasn't an insulting
> cartoon of some Middle Eastern religious icon included with the post
> and attributed to the Washington Times!
> George
A final thought. If there were any truth to these allegations don't you
think that the Wash. Post, NY Times, LA Times, etc. would have been all
over this one!!!!.......G
> >
> > On 27 Jun 2006 11:44:31 -0700, nanovmh@yahoo.com wrote:
> >
> > >AMERICA IN DANGER!
> > >Secret Gas-Aerosol Rooms operated in US
> > >(in Philadelphia, Narberth, Lower Merion, PA)
> > >(in Wilmington and Newark, DE)
> > >(in Hampton, Williamsburg and Richmond, VA)
> > > AND ELSEWHERE.... details below...
> > >Bio-aerosols used to hurt and simulate panic attacks!
> > >
> > >Say "I care" - call Senate (202) 224-3121
> > >House of Representatives (202) 225-3121
> > >
> > > America in danger -
> > >The vice is NOT impeached.
> > > America in danger -
> > >The public trust is breached.
> > >
> > >Big Brother spins protection...
> > > And fear is used to clamp.
> > >Democracy needs action!
> > > On which side do you stand?

> > >
> > > Which side are you on, boys?
> > > Which side moves you on?
> > > Which side are you on, girls?
> > > Which side moves you on?
> > > (Chorus after F. Reece)
> > >
> > >Your church is burned by haters,
> > > The priests to go to jail?
> > >Your dreams are cheynned by traitors,
> > > But hope still shines through veil.
> > >
> > >"Dust rooms" came back to gas us
> > > With neo-Naz (or Con) embrace...
> > >New immigrants do make US!
> > > And not the Super-race...
> > > V. Haryk-Bukovynsky © VMH
> > >
> > >
> > >Looked at this?!! Go to Google/Yahoo newsGroups:
> > >--
> > >TORTURE IN USA: Secret Aerosol Rooms
> > >
> > >US Scientist needs legal help dealing with the secret aerosols rooms
> > >(SARs) operated illegally in Philadelphia area, Newark (DE), Hampton
> > >and Williamsburg (VA) and other places. Highly volatile aerosols with
> > >and without bacterial content cause dry cough, airways a...
> > >
> > >Full text was at:
> > >http://buyit.philly.com/findit/search/results.jsp?catId=krd_philenqda...
> > >
> > >
> > >This was a new on-line ad placed in Philadelphia Inquirer and
> > >Philadelphia Daily News on www.philly.com (see full text below)
> > >It was about the secret aerosols rooms in US. One could find it by
> > >searching "secret", say, in the ad section of philly.com.
> > >
> > >Democracy can not function effectively without the informed public. As
> > >a former NASA Langley scientist working in the area of nanotechnology
> > >and nanoscale particles, I have been recently exposed to the
> > >establishment of secret gas-aerosol rooms inside of United States, at
> > >least in the Mid-Atlantic region (from Philadelphia to Virginia).
> > >
> > >First, the highly irritant aerosols have surfaced at the NASA Langley
> > >Research Center in several safety accidents. Investigations were
> > >blocked, probably, because of lack of Congressional approval for such
> > >financially-lucrative research at NASA. Later, these aerosols had been
> > >encountered outside of NASA in Virginia, Delaware and Pennsylvania
> > >.
> > >This points out to yet another proliferation of originally-sensitive

> > >technologies into domestic American life to hurt and harass people
> > >without a proper oversight and much control. This amounts to torture,
> > >extra-judicial prosecution and authoritarian intimidation tactics. The
> > >use of such irritants and the operations of the secret gas-aerosol
> > >rooms are gross violations of human and constitutional rights of
> > >American citizens and various domestic and international laws.
> > >
> > >-------------------Full text of an ad from
> > >philly.com--------------------------
> > > TORTURE IN USA: Secret Aerosol Rooms
> > >
> > >US Scientist needs legal help dealing with the secret aerosols rooms
> > >(SARs) operated illegally in Philadelphia area, Newark (DE), Hampton
> > >and Williamsburg (VA). Highly volatile aerosols with and without
> > >bacterial content cause dry cough, airways and eyes irritation, chest
> > >pain and inflammation. FBI and Homeland Security associates are likely
> > >operators of SARs, while collaborators may be hotel staff and
> > >landlords, who get financial/material or other incentives. US citizens
> > >and kids are victims.

5027. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:36:56 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a33cc8$0$6154$39cecf19@news.twtelecom.net>
Source record: 56969
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring wrote:

>>
>>
>> he is just a troll and coward
>>
>
> Yes, but I will find out who he is. Just for fun.
>
> Probably an extra that got canned for something or other. ;)
>
> tom
> K0TAR

And you are a target too. I don't like anonymous posters.

tom
K0TAR

5028. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:41:14 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151548874.237362.288280@x69g2000cwx.googlegroups.com>
Source record: 56970
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring wrote:
> Tom Ring wrote:
>
> >>
> >>
> >> he is just a troll and coward
> >>
> >
> > Yes, but I will find out who he is. Just for fun.
> >
> > Probably an extra that got canned for something or other. ;)
> >
> > tom
> > K0TAR
>
> And you are a target too. I don't like anonymous posters.
hardly annymousous kb9rqz is the call all the regulars know that
>
> tom
> K0TAR

5029. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:46:34 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a33f0a$0$1004$39cecf19@news.twtelecom.net>
Source record: 56971
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

an_old_friend wrote:

>>
>>And you are a target too. I don't like anonymous posters.
>
> hardly annymousous kb9rqz is the call all the regulars know that
>

Why don't you sign who you are then? I don't understand why some people
that post like to obfuscate. And I'm a regular, and I can't say I've
ever seen your call. You certainly don't make it obvious, which is your
right, but don't claim it's out there, because it's not.

tom
K0TAR

5030. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:51:27 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151549487.504902.226840@d56g2000cwd.googlegroups.com>
Source record: 56972
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring wrote:
> an_old_friend wrote:
>
> >>
> >>And you are a target too. I don't like anonymous posters.
> >
> > hardly annymousous kb9rqz is the call all the regulars know that
> >
>
> Why don't you sign who you are then?
because I chhosse not to
> I don't understand why some people
> that post like to obfuscate. And I'm a regular, and I can't say I've
> ever seen your call.
the only way you can say and be telling the turth is if you have
killfilled Wismen who blasts it out 30 or sotime a day my call all my
name with an inane accuscatsation that I am a rapist or child molestor
>You certainly don't make it obvious, which is your
> right, but don't claim it's out there, because it's not.

it is tagged on hmore than 500 posts this month according to those that
are counting
>
> tom
> K0TAR

5031. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:56:49 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a34171$0$6150$39cecf19@news.twtelecom.net>
Source record: 56973
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

an_old_friend wrote:

>
> the only way you can say and be telling the turth is if you have
> killfilled Wismen who blasts it out 30 or sotime a day my call all my
> name with an inane accuscatsation that I am a rapist or child molestor
>

Never have seen it. So it must be killfiled or on a group I don't look
at; I only look at rraa of the groups this is duped to. Never heard of
Wismen, whoever that is.

tom
K0TAR

5032. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 02:59:13 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a34201$0$6150$39cecf19@news.twtelecom.net>
Source record: 56974
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

an_old_friend wrote:

> Tom Ring wrote:
>
>>an_old_friend wrote:
>>
>>
>>>>And you are a target too. I don't like anonymous posters.
>>>
>>>hardly annymousous kb9rqz is the call all the regulars know that
>>>
>>
>>Why don't you sign who you are then?
>
> because I chhosse not to

Anyway, it still makes you a target AFAIAC.

tom
K0TAR

5033. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 03:02:09 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151550129.297553.21650@75g2000cwc.googlegroups.com>
Source record: 56975
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring wrote:
> an_old_friend wrote:
>

> > because I chhosse not to
>
> Anyway, it still makes you a target AFAIAC.
can't stop from trying to stlak me if you like any more than I can stop
wismen but if can't find my call taged hundreds of my posts then I am
even less worried about than I am Robeson
>
> tom
> K0TAR

5034. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 03:09:57 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a34485$0$6150$39cecf19@news.twtelecom.net>
Source record: 56876
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

an_old_friend wrote:

> Tom Ring wrote:
>
>>an_old_friend wrote:
>>
>
>
>>>because I chhosse not to
>>
>>Anyway, it still makes you a target AFAIAC.
>
> can't stop from trying to stlak me if you like any more than I can stop
> wismen but if can't find my call taged hundreds of my posts then I am
> even less worried about than I am Robeson
>
>>tom
>>K0TAR
>
>

I'm not stalking anyone, and when you are stalked on the net, you don't know. If you haven't figured that out yet, you are ignorant. You aren't IDing yourself on this newsgroup. That's all I'm talking about. You are way too worried about hiding.

tom
K0TAR

5035. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 03:17:26 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151551046.446215.93640@75g2000cwc.googlegroups.com>
Source record: 56877
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring wrote:
> an_old_friend wrote:
>

>
> I'm not stalking anyone,
no you are blowing smoke about stalking
> and when you are stalked on the net, you don't
> know.
not always
>If you haven't figured that out yet, you are ignorant. You
> aren't IDing yourself on this newsgroup.
wrong again what I am doing is not submitting you demands or wishes as
to how I id on the NG
> That's all I'm talking about.
and stalking people as if it was your bussness
> You are way too worried about hiding.

how isit hiding anybody how has missed and askes is told
>
> tom
> K0TAR
indeed given the oddon this NG it reasonably likely you are anybody but
k0tar

nowtake your lying ass elsewhere

5036. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 03:21:18 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a3472f$0$1012$39cecf19@news.twtelecom.net>
Source record: 56878
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

an_old_friend wrote:

>>tom
>>K0TAR
>
> indeed given the oddon this NG it reasonably likely you are anybody but
> k0tar
>
> nowtake your lying ass elsewhere
>

Given the number of posts I've had here, no further comment needed.

tom
K0TAR

5037. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 03:23:14 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a347a2$0$1012$39cecf19@news.twtelecom.net>
Source record: 56879
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

an_old_friend wrote:

>
> nowtake your lying ass elsewhere
>

And with that

PLONK!

tom
K0TAR

5038. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 03:24:42 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151551482.841181.177940@x69g2000cwx.googlegroups.com>
Source record: 56880
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring wrote:
> an_old_friend wrote:
>
> >>tom
> >>K0TAR
> >
> > indeed given the oddon this NG it reasonably likely you are anybody but
> > k0tar
> >
> > nowtake your lying ass elsewhere
> >
>
> Given the number of posts I've had here, no further comment needed.
and yet you had to to anyway

you are no regaulr you lie about about not seeing my call out there
(meaning you ahave not read the NG TOODAY let alone much at all
>
> tom
> K0TAR

5039. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 03:25:53 UTC
From: an_old_friend <konstans@hotmail.com>
Message-ID: <1151551553.068800.204740@j72g2000cwa.googlegroups.com>
Source record: 56881
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring wrote:
> an_old_friend wrote:
>
> >
> > nowtake your lying ass elsewhere
> >
>
> And with that
and you decided you had to post twice for something you claimed wasn't
worth posting at all

5040. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 03:33:10 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12a6ig7ghnskr92@corp.supernews.com>
Source record: 56882

Mike Coslo wrote:
> . . .
> I don't doubt that someone might come to a different conclusion, but
> I think my reasoning is pretty sound. I modeled an equal length version
> of this in 4nec, and it just doesn't work very well. OTOH, turn it into
> an OCF dipole, and it is a different story. . .

How did you possibly determine what the balun input impedance was when terminated with the impedances the antenna presented on the various bands? How did you model the balun? It's almost certainly a "voltage" balun which will force common mode current onto the feedline when terminated with an asymmetrical load. Because of the common mode current, the outside of the feedline must be part of the model. Did you model the antenna with various lengths and orientations of feedlines?

I don't believe that a valid model can be made of this type of antenna without knowing and accounting for the major imperfections of the balun, the common mode current it forces, and the feedline length and orientation for the particular installation.

Roy Lewallen, W7EL

5041. Re: dipole made of two cb whips?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 03:44:40 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12a6j5ojjea9q6a@corp.supernews.com>
Source record: 56883

Jim wrote:
> i understand that a monopole antenna is an illusion.

Yes and no. An antenna can easily be constructed such that only a monopole radiates significantly. A common example is a ground plane antenna. However, the same amount of current which flows into a monopole must flow somewhere else -- to a ground plane or "counterpoise", to the Earth, down the transmission line, or to another radiating wire for example. So a monopole can't exist in isolation.

the element is
> reflected by ground or a ground plane or a counterpoise and is
> effectively a two element set up anyway.

No, an element isn't "reflected". The field from any antenna, monopole or dipole, is reflected by the ground, creating interference with the unreflected field.

so, somebody take me to
> school on this; what about a ground plane whip such as a cb antenna with
> another identical whip mounted upside down below it?

This constitutes a vertical dipole, a common antenna type.

would the bottom
> whip appear equal to a ground plane and allow the antenna to radiate as
> it was intended to?

No, it wouldn't "appear equal to a ground plane". As for the antenna radiating as it's intended to, how do you intend for it to radiate?

would this work in an application where a decent rf
> ground cannot be achieved?

Sure. A vertical dipole is a very common type of antenna. A google search should bring you a wealth of information.

or where consistent antenna characteristics
> are needed regardless of location or environment?

The location and environment can affect any type of antenna, including this one.

Roy Lewallen, W7EL

5042. Re: Anyone here think this crap isnt a scam?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 05:13:45 UTC
From: Backfire Bob <Backfire@twicepipes.org>
Message-ID: <dkJog.57372$fb2.39962@newssvr27.news.prodigy.net>
Source record: 56884
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

"Chris W" <1qazse4@cox.net> wrote in message
news:TCBog.58318$9c6.48315@dukeread11...
> Backfire Bob wrote:
>
>> You created what? Don't think so....
>> look up "plagiarize" or theft.......
>>
>> Besides that, almost ANYONE can read and use a compass/map.
>> Why should they BUY yours?
>
>
> Get a grip, of course I will have an agreement with the supplier of the
> basic map data. Forgive me for thinking that others mind find useful
> something I find useful.
> Chris W
> KE5GIX
> Gift Giving Made Easy
> Get the gifts you want &
> give the gifts they want
> One stop wish list for any gift,
> from anywhere, for any occasion!
> http://theshitzone.com

I should get a "grip" HAHAHAHA........
You fucking little jerk! you SPAM the hell out of the internet,
include your STUPID shitzone site in EVERY post.You will try to
rip off every person you "touch" on here and HAM radio.
Read this Bozo......
NO ONE IN THEIR RIGHT MIND NEEDS YOUR CRAPPY "SERVICE"!!!!
NO ONE WANTS YOUR OVERPRICED CRAPOLA.
Grow up you fucking 38 year old child.......how can you possibly be so god
damn stupid?
Take your shit-for-brains scams elsewhere......Turds like you are
annoying......

5043. Re: The Google Hypothesis of Guru Elevation - The Guroogle

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 06:23:38 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <rsn6a2t445ce32n25ndknjvq25vl44cmn1@4ax.com>
Source record: 56885

On Wed, 28 Jun 2006 22:20:24 -0400, Mike Coslo
<mremovethiscoslo@adelphia.net> wrote:
> Well, sometimes dummies like me get caught up in actually thinking that
>it is serious discussion. I should know better!

C'mon Mike, this is coy by half.

Look at the Subject line you've responded to.

How could you possibly have any fantasy of this being a lesson in
flower arranging?

Look at the Subject that drove this critique.

With fully 27 correspondents, only Cecil is churning out the
inconsequential (much different from insignificant) at a ratio of
146:8. With this having increased by nearly double the earlier
observed posting ratio of 9:1, how is you seem to have been
blind-sided? If you genuinely desire to discuss the serious topic of
the Google Hypothesis, I would suggest attention to this climbing
ratio. As a fact, it takes no more than a couple dozen words. A
response would hardly encompass half that.

Beyond that, and for entertainment's sake, I'll move on from the
Rodney King metaphor to Beat Takeshi Kitano's "Zatoichi" (or any of
the 25 earlier movies, or the 100 TV episodes).

73's
Richard Clark, KB7QHC

5044. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 11:34:08 UTC
From: wood@itd.nrl.navy.mil
Message-ID: <wood-2906060734230001@jbw-mac.itd.nrl.navy.mil>
Source record: 56886

In article <j3e2a29vk3u961nssj6ra4teh2drqmtg9d@4ax.com>, Win
<w0lz@winlyn.us> wrote:

> When I worked in broadcast radio years ago, I was always amazed that
> service personnal would climb the 10 kw tower hot to change lights.
> They stated they could feel potential between their hands as they
> climbed.
>
> Win, wolz

Hello, and was that a shunt-fed AM broadcast tower? You might just get away with a grab at ground level. OTOH, I would think that grabbing onto a live base-insulated type tower would have serious consequences when being fed by a 10 kW transmitter. Just looking at the RF bypass hardware needed at the base to provide for tower lighting (Austin transformer or Collins lighting choke) should be enough to say "keep away" while transmitting. Sincerely, and 73s from N4GG0,

John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
Naval Research Laboratory
4555 Overlook Avenue, SW
Washington, DC 20375-5337

5045. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 11:51:50 UTC
From: DrDeath <drdeath555usb@yahoo.com>
Message-ID: <12a7fmikn6nsi40@corp.supernews.com>
Source record: 56887
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"Tom Ring" <news0002@taring.org> wrote in message
news:44a347a2$0$1012$39cecf19@news.twtelecom.net...
> an_old_friend wrote:
>
>>
>> nowtake your lying ass elsewhere
>>
>
> And with that
>
> PLONK!
>
> tom
> K0TAR

If you plan to killfile him, you will want this list of 15 nyms. He has already infected RRAP and RRCB. Once you respond he will not stop humping your leg.
kb9rqz_ars@hotmail.com
kb9rqz@yahoo.com
konstans@hotmail.com
kb9rqz__ars@hotmail.com
a_old_friends@yahoo.com
kb9rqz___ars@hotmail.com
kb9rqz@hotmail.com
upperpenarmyguy@yahoo.com
kb9rqz-ars@hotmail.com
kb9rqz_ars@yahoo.com
kb9rqz@markmorgan.com
kb9rqz@markmorgan.net
kb9rqz@amsat.org
kb9rqz--ars@hotmail.com
kb9rqz-MCM@hotmail.com

5046. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 12:53:34 UTC
From: gwatts <gwatts@frontiernet.net>
Message-ID: <i3Qog.4431$oa1.4100@news02.roc.ny>
Source record: 56888
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring wrote:
>
> And you are a target too.

Your use of the word 'target' is interesting.

I'll follow that by quoting you,

> To begin with this is an antenna page, but we'll ignore that for now.

Then you said

> I don't like anonymous posters.

I don't like self-appointed net police but like anonymous posters I have to tolerate them. The Supreme Court has ruled that identifying oneself is not a requirement for freedom of speech, so being an anonymous poster is legal. 'Targeting' them is tantamount to stalking, which is not legal, Mr. Net Cop.

Galen Watts, W8LNA

5047. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 14:32:17 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1151591066_6403@sp6iad.superfeed.net>
Source record: 56889

Cecil Moore wrote:
> chuck wrote:
>> My understanding is that a strong electric field ionizes the air and
>> leads to formation of a corona.
>
> Yes, but according to the references, fairweather conditions are
> not a strong enough electric field to cause corona in the absence
> of some other energy source.
>

That is probably based on the notion
that below a field strength of ~300
volts/meter (Paschen), voltage breakdown
in air is not possible. Fairweather
fields tend to typically be weaker than
that although 200 volts/meter is
sometimes observed.

But Paschen's number assumes parallel
plates, and not sharp electrodes, and
Llewellyn demonstrated sharp electrode
breakdown at 100 volts/meter, a strength
often found in fairweather fields.

There are many other factors that
influence electrical breakdown, such as
ionization of air by naturally occurring
radioactivity (e.g., radon, which would
be another energy source but one which
is usually present near the earth),
atmospheric pressure, etc.

So yes or no? Paschen's law says no. But
Jonassen admits that Paschen's law has
never been tested for non-parallel
electrodes of really small dimensions
and he found it doesn't hold for small
spherical electrodes at separations of a
few cm. Llewellyn reported measurements
below the predicted Paschen minimum for
sharp electrodes.

>> I can't comment on that, Cecil. I was trying to keep the geometry
>> simple with a single vertical wire.
>
> Well, a single vertical wire would have its ground plane grounded

> so it might also build up a charge between the inner coax conductor
> and outer conductor from wind-driven charged particles.

I would think so. And the coax looks
like a capacitor to DC, FWIW.

But wouldn't
> a ball on top reduce the possibility of corona just like it does
> on other vertical antennas?

It would reduce the possibility of
corona if it has a greater radius of
curvature than whatever it replaced.

73,

Chuck

-----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----

5048. Mark Morgan's nyms

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 14:48:50 UTC
From: Lloyd <lloyd@no.spammmmm>
Message-ID: <3109F017833.2458F8789@tarrnews.net>
Source record: 56890
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

On Thu, 29 Jun 2006 06:51:50 -0500, DrDeath <drdeath555usb@yahoo.com> wrote:
>
> If you plan to killfile him, you will want this list of 15 nyms. He has
> already infected RRAP and RRCB. Once you respond he will not stop humping
> your leg.
> kb9rqz_ars@hotmail.com
> kb9rqz@yahoo.com
> konstans@hotmail.com
> kb9rqz__ars@hotmail.com
> a_old_friends@yahoo.com
> kb9rqz___ars@hotmail.com
> kb9rqz@hotmail.com
> upperpenarmyguy@yahoo.com
> kb9rqz-ars@hotmail.com
> kb9rqz_ars@yahoo.com
> kb9rqz@markmorgan.com
> kb9rqz@markmorgan.net
> kb9rqz@amsat.org
> kb9rqz--ars@hotmail.com
> kb9rqz-MCM@hotmail.com

Thanks for posting those. I'd like to see that list posted
periodically as new nyms are discovered.

The reason that the dork has so many nyms is so that he can exceed
Google's daily posting limits by moving from one free account to
another (he has said so himself). He abuses Google so that he can
abuse our news groups. What a fine, upstanding guy. NOT.

5049. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 14:51:25 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1151592685.330547.157830@75g2000cwc.googlegroups.com>
Source record: 56891
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

gwatts wrote:
> Tom Ring wrote:
> >
> > And you are a target too.
>
> Your use of the word 'target' is interesting.
>
> I'll follow that by quoting you,
>
> > To begin with this is an antenna page, but we'll ignore that for now.
>
> Then you said
>
> > I don't like anonymous posters.
>
> I don't like self-appointed net police but like anonymous posters I have
> to tolerate them. The Supreme Court has ruled that identifying oneself
> is not a requirement for freedom of speech, so being an anonymous poster
> is legal. 'Targeting' them is tantamount to stalking, which is not
> legal, Mr. Net Cop.
indeed it is ilegal not that Law Enforcement cares
and I simply make those that wish to know something about me ask
>
> Galen Watts, W8LNA

5050. Re: Mark Morgan's nyms

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 14:51:30 UTC
From: peewee_lloyd_davies@yahoo.com
Message-ID: <1151592690.269396.81970@p79g2000cwp.googlegroups.com>
Source record: 56892
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Lardass Lloyd wrote:
> On Thu, 29 Jun 2006 06:51:50 -0500, DrDeath <drdeath555usb@yahoo.com> wrote:
> >
> > If you plan to killfile him, you will want this list of 15 nyms. He has
> > already infected RRAP and RRCB. Once you respond he will not stop humping
> > your leg.
> > kb9rqz_ars@hotmail.com
> > kb9rqz@yahoo.com
> > konstans@hotmail.com
> > kb9rqz__ars@hotmail.com
> > a_old_friends@yahoo.com
> > kb9rqz___ars@hotmail.com
> > kb9rqz@hotmail.com
> > upperpenarmyguy@yahoo.com
> > kb9rqz-ars@hotmail.com
> > kb9rqz_ars@yahoo.com
> > kb9rqz@markmorgan.com
> > kb9rqz@markmorgan.net
> > kb9rqz@amsat.org
> > kb9rqz--ars@hotmail.com
> > kb9rqz-MCM@hotmail.com
>
> Thanks for posting those. I'd like to see that list posted
> periodically as new nyms are discovered.
>
> The reason that the dork has so many nyms is so that he can exceed
> Google's daily posting limits by moving from one free account to
> another (he has said so himself). He abuses Google so that he can
> abuse our news groups. What a fine, upstanding guy. NOT.

PKB, lisping Lloydie Austin Davies.

5051. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 14:54:54 UTC
From: an old friend <kb9rqz@hotmail.com>
Message-ID: <1151592894.932827.202980@x69g2000cwx.googlegroups.com>
Source record: 56893
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

peewee_lloyd_dav...@yahoo.com wrote:
> Lardass Lloyd wrote:
> > On Thu, 29 Jun 2006 06:51:50 -0500, DrDeath <drdeath555usb@yahoo.com> wrote:
> > >

> PKB, lisping Lloydie Austin Davies.
get help wismen

5052. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 15:06:43 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <70Sog.110009$H71.56497@newssvr13.news.prodigy.com>
Source record: 56894

chuck wrote:
> Cecil Moore wrote:
>> But wouldn't
>> a ball on top reduce the possibility of corona just like it does
>> on other vertical antennas?
>
> It would reduce the possibility of corona if it has a greater radius of
> curvature than whatever it replaced.

So it would seem possible to have arcing at the coax
connector without having corona on the antenna.
--
73, Cecil, http://www.qsl.net/w5dxp

5053. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 18:06:52 UTC
From: Jim Kelley <jwkelley@uci.edu>
Message-ID: <e814uu$b1q$1@news.service.uci.edu>
Source record: 56895

Richard Clark wrote:
> On Wed, 28 Jun 2006 17:08:03 -0700, Jim Kelley <jwkelley@uci.edu>
> wrote:
>
>
>>Calculate the amount of charge
>
>
> Hi Jim,
>
> 3.3 ï¿½C (21 tera-electrons) ï¿½3dB
>
> 73's
> Richard Clark, KB7QHC

Hi Richard,

:-) Now bracket the high side.

jk

5054. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 18:28:04 UTC
From: Tom Ring <news0002@taring.org>
Message-ID: <44a41bb4$0$6145$39cecf19@news.twtelecom.net>
Source record: 56896
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

DrDeath wrote:
> "Tom Ring" <news0002@taring.org> wrote in message
> news:44a347a2$0$1012$39cecf19@news.twtelecom.net...
>
>>an_old_friend wrote:
>>
>>
>>>nowtake your lying ass elsewhere
>>>
>>
>>And with that
>>
>>PLONK!
>>
>>tom
>>K0TAR
>
>
> If you plan to killfile him, you will want this list of 15 nyms. He has
> already infected RRAP and RRCB. Once you respond he will not stop humping
> your leg.
> kb9rqz_ars@hotmail.com
> kb9rqz@yahoo.com
> konstans@hotmail.com
> kb9rqz__ars@hotmail.com
> a_old_friends@yahoo.com
> kb9rqz___ars@hotmail.com
> kb9rqz@hotmail.com
> upperpenarmyguy@yahoo.com
> kb9rqz-ars@hotmail.com
> kb9rqz_ars@yahoo.com
> kb9rqz@markmorgan.com
> kb9rqz@markmorgan.net
> kb9rqz@amsat.org
> kb9rqz--ars@hotmail.com
> kb9rqz-MCM@hotmail.com
>
>

Thanks.

tom
K0TAR

5055. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 18:40:24 UTC
From: chuck <nospam@nospam.net>
Message-ID: <1151605946_9353@sp6iad.superfeed.net>
Source record: 56897

```
Cecil Moore wrote:
> chuck wrote:
>> Cecil Moore wrote:
>>> But wouldn't
>>> a ball on top reduce the possibility of corona just like it does
>>> on other vertical antennas?
>>
>> It would reduce the possibility of corona if it has a greater radius
>> of curvature than whatever it replaced.
>
> So it would seem possible to have arcing at the coax
> connector without having corona on the antenna.

Sure. They're not mutually exclusive events.

----== Posted via Newsfeeds.Com - Unlimited-Unrestricted-Secure Usenet News==----
http://www.newsfeeds.com The #1 Newsgroup Service in the World! 120,000+ Newsgroups
----= East and West-Coast Server Farms - Total Privacy via Encryption =----
```

5056. Re: Noise level between two ant types

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 19:16:40 UTC
From: Richard Clark <kb7qhc@comcast.net>
Message-ID: <l398a29bbmtrft0cn0320108aster7bdqt@4ax.com>
Source record: 56898

On Thu, 29 Jun 2006 11:06:52 -0700, Jim Kelley <jwkelley@uci.edu>
wrote:
>>>Calculate the amount of charge

>> 3.3 ï¿½C (21 tera-electrons) ï¿½3dB

>:-) Now bracket the high side.

Hi Jim,

Let's just work with one value. It's probably the only specific
answer you will get. Too many are constipated trying to specify STP,
the radius of the point, the source of the charge, yadda-yadda-yadda,
before moving their "guess."

73's
Richard Clark, KB7QHC

5057. Diamond BB7V Vertical

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 21:48:48 UTC
From: helmsman <helmsman@royaloak.net>
Message-ID: <bfi8a2105aangm7vbng64doqaibaple5du@4ax.com>
Source record: 56899

Diamond BB7V Vertical.

Anyone using it, do you like it, was it worth the money, how would you rate it 1 to 10, nowing what you know now would you buy it again ?
Thanks for your time :')

5058. Re: dipole made of two cb whips?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 22:44:44 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e81l51dna1@avnika.corp.mot.com>
Source record: 56901

Jim and Roy,
While this sounds like I am contradicting Roy, I believe I am simply stating things in a slightly different way. The type of mental model I express here has worked well for me over the years, in discussions with other professionals, in understanding the various antennas.

Roy says Yes and No in places here, but I would use different Yes's and No's in this case, as follows:

> Jim wrote:
> > i understand that a monopole antenna is an illusion.
> Roy:
> Yes and no. An antenna can easily be constructed such that only a
> monopole radiates significantly. A common example is a ground plane
> antenna. However, the same amount of current which flows into a monopole
> must flow somewhere else -- to a ground plane or "counterpoise", to the
> Earth, down the transmission line, or to another radiating wire for
> example. So a monopole can't exist in isolation.

While what Roy says is correct (there should rarely be any doubt) , I believe Jim's interpretation is not in-valid and can be a very good "mental model" of antennas.. The monopole needs something to be its "other half" as Jim says. In a ground plane antenna, the "plane" is the other half. In a dipole (vertical or otherwise) the bottom half is the "other half". Any and every circuit needs two connections to have a complete circuit. Sometimes, with antennas, the "other half" is not obvious to everyone, but it will always be there and Roy's words; "...the same amount of current which flows into a monopole must flow somewhere else .." addresses this "other half" issue. I believe Jims words are sufficently close to Roy's words to be equivalent. So, I would say, Yes. There ain't no such thing as a monopole, you just don't realize what is acting as the other half (If you think you have one).
I believe this basic concept can be applied to almost every antenna configuration to help understand, to a great extent, what is "going on"

Jim:
> the element is
> > reflected by ground or a ground plane or a counterpoise and is
> > effectively a two element set up anyway.
> Roy:
> No, an element isn't "reflected". The field from any antenna, monopole
> or dipole, is reflected by the ground, creating interference with the
> unreflected field.

Actyually I'd say Yes. I believe the following words describe precisely the same thing Roy said.

In electromagnetic field theory studies, there is something called the "Method of Mirrors". This is a way to calculate a field when there is a conducting plane nearby. To model the conducting plane is mathematically very complex. You actually can model the conducting plane as a mirror which has produced a "reflection" of the element in it. This reflection, because of the properties of the field, has the opposite sign (polarity) and is mathematically handled as though it was another element in the place conducting plane. . It turns out that with this new model, it is much easier to do the math to get the total field. (NO I can't do it any more...don't actually think I was doing it the first time! bad instructor). So, I would say that it is a pretty good analogy to say that the ground plane "has the effect of" reflecting the monopole and therefore providing the "other half".

>
> so, somebody take me to
> > school on this; what about a ground plane whip such as a cb antenna with
> > another identical whip mounted upside down below it?
>
> This constitutes a vertical dipole, a common antenna type.

You have, ideed described a dipole turned vertical...and I feel you have identified a very important concept in antennas. Just about every antenna can be understood better if you start out by finding the "dipole" hidden within. beams, G5RVs end-fire arrays, broasdide arras, J-Antennas, colinears...

> would the bottom
> > whip appear equal to a ground plane and allow the antenna to radiate as
> > it was intended to?
>
> No, it wouldn't "appear equal to a ground plane". As for the antenna
> radiating as it's intended to, how do you intend for it to radiate?

Per my above, I'd say that Jim's description is a relatively good model to have in your head. If the groundplane "acts" similar to a mirror giving rise to the equivalent of the "other half" of the dipole, and that result is equivalent to another "half" mounted below it, I feel this only leaves us to debate the real meaning of Jim's words "...appear equal to ...". I think that is a pretty good way to think about it.

> would this work in an application where a decent rf
> > ground cannot be achieved?
>
> Sure. A vertical dipole is a very common type of antenna. A google
> search should bring you a wealth of information.

Ditto on what Roy said, plus: The antenna commonly called a "J-Pole" is "the same thing" as a half wave dipole, but stood on end, vertically...EXCEPT it is fed power at its bottom end not in the middle.

As an asside...I'll also add that this concept of a "decent RF ground" is something that many seem to believe is some sort of an absolute thing. Comments labout wanting to get a wire to a ground rod as being the solution to all things...the hunt for the "good RF ground". I have a tongue-in-cheek twist on an old saying: "A ground's a ground, the world around." An RF ground is somwhat of a myth, even on a solid sheet of copper, but some think there is this absolute GROUND that all things must be connected to in order for things to work correctly, or solve problems. Of course I know that, as Jim states, that the bottom half of this vertical dipole is the "other half" of the antenna and might be considered a "ground" but is is nothing more than the other half of the antenna and hads, and needs, absolutely no relation a zerp potential reference, whatever that is.

> or where consistent antenna characteristics
> > are needed regardless of location or environment?
>
> The location and environment can affect any type of antenna, including
> this one.

Here, Jim is getting into wording that may mean different things to differet people, but what Roy says is fact. Antennas carry RF and things like capacitance to nearby objects and currents induced into nearby conductors; always, always can have an effect on an antenna regardless of it's particulat construction. There will be different effects for different types of antennas, but this is all dependent on the antenna and the place it is hung. There may be some forms of antenna that are less susceptable to nearby objects in certain places relative to the antenna, but this is all random--that is to say; it depends on the antenna and your back yard.

73, Steve, K9DCI

5059. Re: get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 23:23:56 UTC
From: Woger <wussywoger@yahoo.com>
Message-ID: <3u9el.g3i.17.1@news.alt.net>
Source record: 56900

"Tom Ring" <news0002@taring.org> wrote in message
news:44a34171$0$6150$39cecf19@news.twtelecom.net...
an_old_friend wrote:

>
> the only way you can say and be telling the turth is if you have
> killfilled Wismen who blasts it out 30 or sotime a day my call all my
> name with an inane accuscatsation that I am a rapist or child molestor
>

Never have seen it. So it must be killfiled or on a group I don't look
at; I only look at rraa of the groups this is duped to. Never heard of
Wismen, whoever that is.

tom
K0TAR
>
Ignore this guy, Tom. KB9RQZ floods the newsgroups with hundreds of posts
weekly. He uses no less than 15 nims, which allows him to use Google to
abuse the news groups. His nims are:
kb9rqz_ars@hotmail.com
kb9rqz@yahoo.com
konstans@hotmail.com
kb9rqz__ars@hotmail.com
a_old_friends@yahoo.com
kb9rqz___ars@hotmail.com
kb9rqz@hotmail.com
upperpenarmyguy@yahoo.com
kb9rqz-ars@hotmail.com
kb9rqz_ars@yahoo.com
kb9rqz@markmorgan.com
kb9rqz@markmorgan.net
kb9rqz@amsat.org
kb9rqz--ars@hotmail.com
kb9rqz-MCM@hotmail.com

Killfile him. He's not worth bothering with.

5060. Re: dipole made of two cb whips?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 23:35:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12a8oudivc16i32@corp.supernews.com>
Source record: 56902

Steve N. wrote:
> . . .
> While what Roy says is correct (there should rarely be any doubt) , I
> believe Jim's interpretation is not in-valid and can be a very good "mental
> model" of antennas.. The monopole needs something to be its "other half" as
> Jim says. In a ground plane antenna, the "plane" is the other half. In a
> dipole (vertical or otherwise) the bottom half is the "other half". Any and
> every circuit needs two connections to have a complete circuit. Sometimes,
> with antennas, the "other half" is not obvious to everyone, but it will
> always be there and Roy's words; "...the same amount of current which flows
> into a monopole must flow somewhere else .." addresses this "other half"
> issue. I believe Jims words are sufficently close to Roy's words to be
> equivalent. So, I would say, Yes. There ain't no such thing as a monopole,
> you just don't realize what is acting as the other half (If you think you
> have one).
> I believe this basic concept can be applied to almost every antenna
> configuration to help understand, to a great extent, what is "going on"

I agree with that.

>
> Jim:
>> the element is
>>> reflected by ground or a ground plane or a counterpoise and is
>>> effectively a two element set up anyway.
>> Roy:
>> No, an element isn't "reflected". The field from any antenna, monopole
>> or dipole, is reflected by the ground, creating interference with the
>> unreflected field.
>
> Actyually I'd say Yes. I believe the following words describe precisely the
> same thing Roy said.
> In electromagnetic field theory studies, there is something called the
> "Method of Mirrors". This is a way to calculate a field when there is a
> conducting plane nearby. To model the conducting plane is mathematically
> very complex. You actually can model the conducting plane as a mirror which
> has produced a "reflection" of the element in it. This reflection, because
> of the properties of the field, has the opposite sign (polarity) and is
> mathematically handled as though it was another element in the place
> conducting plane. . It turns out that with this new model, it is much
> easier to do the math to get the total field. (NO I can't do it any
> more...don't actually think I was doing it the first time! bad instructor).
> So, I would say that it is a pretty good analogy to say that the ground
> plane "has the effect of" reflecting the monopole and therefore providing
> the "other half".

The reasons I objected to the concept are twofold. First, there's some ambiguity in what constitutes the "ground plane" which does the "reflecting". The "ground plane" of a ground plane antenna reflects nothing except very high angle radiation. So it doesn't act as a mirror in any sense. Secondly, the Earth does reflect the field, but the result isn't anything like a mirror. Only a perfect ground ends up creating the same shaped field from a grounded vertical as a free space dipole. Real ground creates a field shape which is very significantly different. So the model of a mirror-like ground isn't at all a good one; its use leads to incorrect conclusions so I don't feel it should be used unless the user clearly understands that the conditions under which it's valid aren't ones you can achieve very well at all -- except with salt water or with a very large (several wavelength radius) conducting plane perhaps at UHF.

>> so, somebody take me to
>>> school on this; what about a ground plane whip such as a cb antenna with
>>> another identical whip mounted upside down below it?
>> This constitutes a vertical dipole, a common antenna type.
>
> You have, ideed described a dipole turned vertical...and I feel you have
> identified a very important concept in antennas. Just about every antenna
> can be understood better if you start out by finding the "dipole" hidden
> within. beams, G5RVs end-fire arrays, broasdide arras, J-Antennas,
> colinears...
>
>
>> would the bottom
>>> whip appear equal to a ground plane and allow the antenna to radiate as
>>> it was intended to?
>> No, it wouldn't "appear equal to a ground plane". As for the antenna
>> radiating as it's intended to, how do you intend for it to radiate?
>
> Per my above, I'd say that Jim's description is a relatively good model
> to have in your head. If the groundplane "acts" similar to a mirror giving
> rise to the equivalent of the "other half" of the dipole, and that result is
> equivalent to another "half" mounted below it, I feel this only leaves us to
> debate the real meaning of Jim's words "...appear equal to ...". I think
> that is a pretty good way to think about it.

Well, no, a typical "ground plane" doesn't act like a mirror, as I explained above. And even the Earth does a very poor job of acting like one. At best, it's a dirty mirror which isn't uniformly dirty. The only common exception is salt water, which does a fair job.

>> would this work in an application where a decent rf
>>> ground cannot be achieved?
>> Sure. A vertical dipole is a very common type of antenna. A google
>> search should bring you a wealth of information.
>
> Ditto on what Roy said, plus: The antenna commonly called a "J-Pole" is
> "the same thing" as a half wave dipole, but stood on end,

> vertically...EXCEPT it is fed power at its bottom end not in the middle.
>
> As an asside...I'll also add that this concept of a "decent RF ground"
> is something that many seem to believe is some sort of an absolute thing.
> Comments labout wanting to get a wire to a ground rod as being the solution
> to all things...the hunt for the "good RF ground". I have a tongue-in-cheek
> twist on an old saying: "A ground's a ground, the world around." An RF
> ground is somwhat of a myth, even on a solid sheet of copper, but some think
> there is this absolute GROUND that all things must be connected to in order
> for things to work correctly, or solve problems. Of course I know that, as
> Jim states, that the bottom half of this vertical dipole is the "other half"
> of the antenna and might be considered a "ground" but is is nothing more
> than the other half of the antenna and hads, and needs, absolutely no
> relation a zerp potential reference, whatever that is.

Yes, "ground" is a concept which is almost universally misunderstood and misused. Calling something "ground" seemingly imparts magical properties to it. Very often, it gets in the way of understanding how antennas work, and people would be better off forgetting about it. It's not uncommon for an EZNEC user to ask how to model a "ground" or to specify that something is a "ground", meaning some sort of elevated "counterpoise" or "ground plane". I explain that the program doesn't know or care what the user might consider to be "ground" -- all it knows and cares about are conductors and currents. People hoping to understand antennas would be well served by doing the same.

> . . .

Roy Lewallen, W7EL

5061. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 23:37:30 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <_uZog.126$PE1.119@newsread2.news.pas.earthlink.net>
Source record: 56903
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Cecil Moore <mycall@hotmail.com> wrote in
news:5MGog.30641$VE1.2858@newssvr14.news.prodigy.com:

> Slow Code wrote:
>> Cecil Moore <mycall@hotmail.com> wrote in
>>> While you, OTOH, when your hardware fails, simply drag out
>>> the signaling flags, mirrors, and smoke signals?
>>
>> I'll get back to you on that one. I've never been in a situation where
>> I couldn't produce RF and commmunicate. When it finally does happen,
>> I'll let you know if it was flags, mirrors, or smoke signals.
>
> Oh yeah, I forgot, only the SSB portion of a transceiver's
> electronics ever fails. :-)

That's generally when you find out your rig might need repair, when
someone reports your audio is distorted or garbled.

SC

5062. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-29 23:37:32 UTC
From: Slow <my.mail@no.spam>
Message-ID: <0vZog.127$PE1.21@newsread2.news.pas.earthlink.net>
Source record: 56904
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Tom Ring <news0002@taring.org> wrote in
news:44a3391b$0$1004$39cecf19@news.twtelecom.net:

> Slow Code wrote:
>
>>>
>>>He's not just Slow Code, he's slow everything, especially on the
>>>uptake.
>>
>>
>>
>>
>> Yes, but I'm still faster than you.
>>
>> sc
>>
>>
>
> And won't tell you who he is. Chicken Shit seems an appropriate
> description.
>
> Although I'd bet I can find out who it is. I won't bother, but it isn't
> all that hard if you know the ISP business. And since that's what I do
> for a living...
>
> tom
> K0TAR

I'm really happy the FCC eliminated the 20 wpm Code requirement so you
could get your Extra.

sc

5063. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 00:24:50 UTC
From: Tom Ring <news0003@taring.org>
Message-ID: <44a46f53$0$6144$39cecf19@news.twtelecom.net>
Source record: 56905
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Slow wrote:
> Tom Ring <news0002@taring.org> wrote in
> news:44a3391b$0$1004$39cecf19@news.twtelecom.net:
>
>
>>Slow Code wrote:
>>
>>
>>>>He's not just Slow Code, he's slow everything, especially on the
>>>>uptake.
>>>
>>>
>>>
>>>
>>>Yes, but I'm still faster than you.
>>>
>>>sc
>>>
>>>
>>
>>And won't tell you who he is. Chicken Shit seems an appropriate
>>description.
>>
>>Although I'd bet I can find out who it is. I won't bother, but it isn't
>>all that hard if you know the ISP business. And since that's what I do
>>for a living...
>>
>>tom
>>K0TAR
>
>
>
> I'm really happy the FCC eliminated the 20 wpm Code requirement so you
> could get your Extra.
>
> sc

I'm really happy that good programmers let idiots have access to the
internet instead of keeping them off like they should be. Of course,
I'm not talking about you.

tom
K0TAR

5064. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 00:29:42 UTC
From: Tom Ring <news0003@taring.org>
Message-ID: <44a47076$0$6144$39cecf19@news.twtelecom.net>
Source record: 56906
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Slow wrote:

> Tom Ring <news0002@taring.org> wrote in
> news:44a3391b$0$1004$39cecf19@news.twtelecom.net:
>
>
>>Slow Code wrote:
>>
>>
>>>>He's not just Slow Code, he's slow everything, especially on the
>>>>uptake.
>>>
>>>
>>>
>>>
>>>Yes, but I'm still faster than you.
>>>
>>>sc
>>>
>>>
>>
>>And won't tell you who he is. Chicken Shit seems an appropriate
>>description.
>>
>>Although I'd bet I can find out who it is. I won't bother, but it isn't
>>all that hard if you know the ISP business. And since that's what I do
>>for a living...
>>
>>tom
>>K0TAR
>
>
>
> I'm really happy the FCC eliminated the 20 wpm Code requirement so you
> could get your Extra.
>
> sc

Are you sure I don't know 20?

And with that you join another idiot.

PLONK!

5065. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 00:47:30 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <Cw_og.57621$Lm5.34062@newssvr12.news.prodigy.com>
Source record: 56907
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Slow Code wrote:
> That's generally when you find out your rig might need repair, when
> someone reports your audio is distorted or garbled.

I invariably find out my rig needs repair when the
finals blow.
--
73, Cecil http://www.qsl.net/w5dxp

5066. icom725 hf power control i need some help with this 1 thanks in advance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 01:44:23 UTC
From: hamguy1 <hamguy1@optusnet.com.au>
Message-ID: <44a481f6$0$28132$afc38c87@news.optusnet.com.au>
Source record: 56908
Cross-posted to: alt.ham-radio.marketplace,alt.ham-radio.mods,alt.ham-radio.packet,alt.ham-radio.vhf-uhf,free.uk.amateur-radio,rec.radio.amateur.antenna

hi newsgroups, does anyone off by hand have an icom 725 hf transceiver i need to know which adj inside the radio turns the ssb power etc down as this 1 is to high powerred for this persons power supply, thx in advance david nsw australia .

5067. Re: icom725 hf power control i need some help with this 1 thanks in advance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 02:36:17 UTC
From: Brian 2W0BDW <notsaying@here.com>
Message-ID: <B60pg.407$Xp3.278@newsfe4-gui.ntli.net>
Source record: 56909
Cross-posted to: alt.ham-radio.marketplace,alt.ham-radio.mods,alt.ham-radio.packet,alt.ham-radio.vhf-uhf,free.uk.amateur-radio,rec.radio.amateur.antenna

"hamguy1" <hamguy1@optusnet.com.au> wrote in message
news:44a481f6$0$28132$afc38c87@news.optusnet.com.au...
> hi newsgroups, does anyone off by hand have an icom 725 hf transceiver i
> need to know which adj inside the radio turns the ssb power etc down as
> this 1 is to high powerred for this persons power supply, thx in advance
> david nsw australia .
>
IC-725 Rotary concentric knob (outer=power inner=mic) on front panel 10W
(ccw) to 100w (cw)

manual: http://www.icom.co.jp/manual/external/transceivers/IC-725.pdf

or did you mean IC-725A? totally different beasty ;)

IC-725A Small rotary control on front panel 5W(ccw) to 100W (cw)

manual: http://www.icom.co.jp/manual/external/transceivers/IC-725A.pdf

(values given for FM/SSB/cw)

Adjustments are covered in the relevent manual.
If 5W or 10W is too much for the power supply consider a bigger supply (20A
+)

5068. Re: icom725 hf power control i need some help with this 1 thanks in advance

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 03:08:51 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <7B0pg.110227$H71.72289@newssvr13.news.prodigy.com>
Source record: 56910
Cross-posted to: alt.ham-radio.marketplace,alt.ham-radio.mods,alt.ham-radio.packet,alt.ham-radio.vhf-uhf,free.uk.amateur-radio,rec.radio.amateur.antenna

hamguy1 wrote:
> hi newsgroups, does anyone off by hand have an icom 725 hf transceiver i
> need to know which adj inside the radio turns the ssb power etc down as this
> 1 is to high powerred for this persons power supply, thx in advance david
> nsw australia .

I once had one of those. If I remember correctly, there is an
RF power pot on the front panel.
--
73, Cecil http://www.qsl.net/w5dxp

5069. Re: Anyone here think this crap isnt a scam?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 03:27:21 UTC
From: Backfire Bob <Backfire@twicepipes.org>
Message-ID: <tS0pg.31209$VE1.26660@newssvr14.news.prodigy.com>
Source record: 56911
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

"Walt Davidson" walt@ukgateway.ne wrote in message
news:aqr6a25ghn0d1974qtrh7qu9aabm5501t7@4ax.com...
> On Thu, 29 Jun 2006 05:13:45 GMT, "Backfire Bob"
> <Backfire@twicepipes.org> wrote:
>
>>*I* should get a "grip" HAHAHAHA........
>>You fucking little jerk! you SPAM the hell out of the internet,
>>include your STUPID shitzone site in EVERY post.You will try to
>>rip off every person you "touch" on here and HAM radio.
>>Read this Bozo......
>>NO ONE IN THEIR RIGHT MIND NEEDS YOUR CRAPPY "SERVICE"!!!!
>>NO ONE WANTS YOUR OVERPRICED CRAPOLA.
>>Grow up you fucking 38 year old child.......how can you possibly be so god
>>damn stupid?
>>Take your shit-for-brains scams elsewhere......Turds like you are
>>annoying......
>
> The foul-mouthed CBer reveals himself as soon as he opens his mouth.
>
> 73 de G3NYY
>
> --
> Walt Davidson Email: walt@ukgateway.net

WOW Walt! you sure showed me..you fat old over inflated windbag....
Go back to printing your own DX QSL cards for your wall..you fake.

5070. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 03:29:20 UTC
From: Mike Coslo <mremovethiscoslo@adelphia.net>
Message-ID: <uN2dnc5mxbwQBznZnZ2dnUVZ_tednZ2d@adelphia.com>
Source record: 56912

Roy Lewallen wrote:
> Mike Coslo wrote:
>
>> . . .
>> I don't doubt that someone might come to a different conclusion,
>> but I think my reasoning is pretty sound. I modeled an equal length
>> version of this in 4nec, and it just doesn't work very well. OTOH,
>> turn it into an OCF dipole, and it is a different story. . .
>
>
> How did you possibly determine what the balun input impedance was when
> terminated with the impedances the antenna presented on the various
> bands?

You are correct, I couldn't. But what I got was enough to tell me that with the two sides of equal length, there wasn't much need to go any further. Cannot some antenna characteristics be modeled without the entire system in place? I'm no expert, so I'll ask the question: Is there some Balun that will make a 135 foot equal length antenna perform on 80-10 meters?

How did you model the balun? It's almost certainly a "voltage"
> balun which will force common mode current onto the feedline when
> terminated with an asymmetrical load. Because of the common mode
> current, the outside of the feedline must be part of the model. Did you
> model the antenna with various lengths and orientations of feedlines?
>
> I don't believe that a valid model can be made of this type of antenna
> without knowing and accounting for the major imperfections of the balun,
> the common mode current it forces, and the feedline length and
> orientation for the particular installation.

It isn't whether my model is exceptionally valid. I don't know what the balun is that they use, so that sense it doesn't matter anyhow. You would know much better the balun that would make this antenna work.

I'm just looking at what is there, and by looking at both the context of the advertisement, references given for their other antennas and the like, I'm just saying that I suspect that that antenna is a OCF dipole.

Their G5RV antennas do *not* have an L1 and L2 to designate length of the sides. If that antenna has an equal length side, it is the only one on the site that does. Yeah, I know they are not really G5RV's.

In addition, is BuxCom going to try to sell a product that apparently doesn't work? I don't see any of the hype that tends to go along with

the "magic" antennas we sometimes hear about

All of the above just about convince me that the antenna in question is an OCF dipole, and that the description and image is a big typo.

Others may take it at all at face value, disregard all the evidence to the contrary, and assume that the sellers are just trying to hoodwink a gullible public into buying a non-working product.

That doesn't make sense to me. YMMV

- 73 de Mike KB3EIA -

5071. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 04:47:36 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12a9b7dqlb92he0@corp.supernews.com>
Source record: 56913

Mike Coslo wrote:
> Roy Lewallen wrote:
>> Mike Coslo wrote:
>>
>>> . . .
>>> I don't doubt that someone might come to a different conclusion,
>>> but I think my reasoning is pretty sound. I modeled an equal length
>>> version of this in 4nec, and it just doesn't work very well. OTOH,
>>> turn it into an OCF dipole, and it is a different story. . .
>>
>>
>> How did you possibly determine what the balun input impedance was when
>> terminated with the impedances the antenna presented on the various
>> bands?
>
> You are correct, I couldn't. But what I got was enough to tell me
> that with the two sides of equal length, there wasn't much need to go
> any further. Cannot some antenna characteristics be modeled without the
> entire system in place?

Yes, but you have to at least include the whole antenna -- you can't tell much about a two-element array by modeling a single isolated element. In the case of an OCF dipole, unless heroic efforts are made to keep common mode current off the feedline (which the balun doesn't achieve), the feedline is part of the antenna so, like the second element of an array, it can have a major impact on the both the pattern and impedance and has to be included in the model. The balun, feedline length, and feedline orientation all play a role in determining how much current goes down the feedline part of the antenna and where that part is. So you have to know at least that much to get a meaningful result.

I'm no expert, so I'll ask the question: Is
> there some Balun that will make a 135 foot equal length antenna perform
> on 80-10 meters?

"Perform" is one of those binary terms that depend on where you put the dividing line. But the answer is that the only practical way you can achieve a reasonable impedance match to a coax feedline on all bands with a center fed 135 foot antenna is to introduce a fair amount of loss. This could be in the form of a resistor at the feedpoint, for example. Then you'll have an inefficient antenna at least on some bands. Alternatively, you can have low loss at the feedpoint but a lousy impedance match. Then you'd have a lot of loss in the feedline if you fed it with coax. The bottom line is that you'll have poor efficiency on at least some bands if you feed it with coax, no matter what you do --

short of putting either an adjustable or very elaborate fixed matching network at the feedpoint.

Nearly any ham can measure the SWR but almost none can measure the efficiency. So many antenna manufacturers have produced lossy antennas which exhibit a low SWR. This is perfectly acceptable to many amateurs, as evidenced by glowing reviews for a number of antennas which can be shown to be quite inefficient such as the B&W T2FD or the Isotron. Those amateurs would positively say that such antennas "perform", and this can't be disputed since the judgment is entirely up to them.

> . . .

> Others may take it at all at face value, disregard all the evidence
> to the contrary, and assume that the sellers are just trying to hoodwink
> a gullible public into buying a non-working product.
>
> That doesn't make sense to me. YMMV

"Working" is like "perform" -- the threshold is different for different people. But a quick scan of reviews for the Buckmaster and Alpha-Delta OCF antennas (the latter apparently manufactured by Buckmaster) show high satisfaction from at least the users who have taken the time to post reviews. Whether you or I would be happy with one depends on our personal criteria.

Roy Lewallen, W7EL

5072. STFU, spamming Morgan

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 09:59:58 UTC
From: peewee_lloyd_davies@yahoo.com
Message-ID: <1151661598.548157.125640@y41g2000cwy.googlegroups.com>
Source record: 56914
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

```
an old friend wrote:
> peewee_lloyd_dav...@yahoo.com wrote:
> > Lardass Lloyd wrote:
> > > On Thu, 29 Jun 2006 06:51:50 -0500, DrDeath <drdeath555usb@yahoo.com> wrote:
> > > >
>
> > PKB, lisping Lloydie Austin Davies.
> get

STFU, Spammer.
```

5073. STFU, Marqueer!

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 10:04:36 UTC
From: peewee_lloyd_davies@yahoo.com
Message-ID: <1151661876.672503.311750@m73g2000cwd.googlegroups.com>
Source record: 56915
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

an old friend wrote:
> gwatts wrote:
> > Tom Ring wrote:
> > >
> > > And you are a target too.
> >
> > Your use of the word 'target' is interesting.
> >
> > I'll follow that by quoting you,
> >
> > > To begin with this is an antenna page, but we'll ignore that for now.
> >
> > Then you said
> >
> > > I don't like anonymous posters.
> >
> > I don't like self-appointed net police but like anonymous posters I have
> > to tolerate them. The Supreme Court has ruled that identifying oneself
> > is not a requirement for freedom of speech, so being an anonymous poster
> > is legal. 'Targeting' them is tantamount to stalking, which is not
> > legal, Mr. Net Cop.
> indeed it is ilegal not that Law Enforcement cares

Career criminal Marqueer speaking for law enforcement? HAHAHAHA!

> and I simply make those that wish to know something about me ask

Bullshit, you are hiding and spamming.

Call his Service provider Hughes.net 1-866-347-3292 and tell them how
much spam the Chassell chimp is doing. We'll see who cares then,
spamnmer.

5074. Re: Anyone have an EZNEC Windom Model

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 10:21:32 UTC
From: David A'Bear <David.ABear.2a812u@news.radiobanter.com>
Message-ID: <David.ABear.2a812u@news.radiobanter.com>
Source record: 56924

Larry Wrote:
> I would like to model my Carolina Windom antenna and compare it with
> the
> real antenna that I have installed. Does anyone have EZNEC modelling
> data
> for any kind of Windom that they are willing to share?
>
> 73
> Larry
Hi Larry - Just wonder if you have had any luck? Working on the same
thing myself and having difficulties.
73
David

--
David A'Bear

5075. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 10:24:22 UTC
From: markie_morgan_rapesboys@yahoo.com
Message-ID: <1151663062.204738.83970@m73g2000cwd.googlegroups.com>
Source record: 56916
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
an old friend wrote:
> Slow Code wrote:
>
> >
> > Yes, I can get the message there quicker in a bottle, than the time it
> > takes an appliance operator to get their rig back from a repair shop.
> get help

STFU, spamming retard. You are too stupid and lazy to learn morse code!
```

5076. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 11:15:18 UTC
From: "J. D. B." <duffyb01@nospamfuse.net>
Message-ID: <53da4$44a50840$d06640f9$1754@FUSE.NET>
Source record: 56917
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

Let's be honest, the only thing you can repair is some old piece of junk tube rig because the technology is so simple. You could never repair a modern rig, because like most dinos, you have ever evolved into the new technology because out of fear, you cling to what is old and comfortable.

Slow Code wrote:
> Cecil Moore <mycall@hotmail.com> wrote in
> news:33eog.55053$fb2.28347@newssvr27.news.prodigy.net:
>
>> Slow Code wrote:
>>> When hardware fails, my pencil and paper still work.
>> When hardware fails, you resort to messages in bottles?
>
>
> Yes, I can get the message there quicker in a bottle, than the time it
> takes an appliance operator to get their rig back from a repair shop.
>
> SC

5077. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 11:26:39 UTC
From: "J. D. B." <duffyb01@nospamfuse.net>
Message-ID: <14079$44a50aea$d06640f9$26607@FUSE.NET>
Source record: 56918
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Wow, you guys must have been part of the most ignorant group of individuals ever put on this earth using the most crappy computers and equipment. All the computers crashed? Wow, how could that have happened?

I am surprised that the newbies are still using ham radio after hanging around with you dinos. Computers broke down and you could not help fix them. That's right, the computers don't run on tubes and that is the extent of your knowledge as dinos.

Now anyone that uses PSK knows that you can work a station that you cannot hear with the human ear. Anyone that knows CW knows that you have to hear CW in order to copy it. So as a dino, you are showing your ignorance of technology and probably have never heard, seen or used PSK or you would never have made that statement.

My Field Day group had a good laugh when I pointed out your message to them. They said you obviously don't know what you are talking about - at least concerning anything modern.

So you old, used up, worthless dinos laughed at the newbies, belittled them, and you could not fix or use anything modern. And you think those newbies are going to stick with ham radio? Probably not. Old thinking buggy whip hams like yourself need to stay locked in your shacks talking only with other dinos about your illnesses and the like, and stay away from the younger technology savy crowd as they might be really interested in ham radio and your old crap is going to scare them away.

They don't want to learn about buggy whips when they are interested in driving a modern car - get it old timer?

Slow Code wrote:
>
>
> I know you're right.
>
> They where doing great until the computers crashed then the new hams
> looked at us old hams, blank stares on their faces wondering what to do.
> They thought Field day was over at the point. Then us dino's took over
> and showed them what ham radio really was. Some nickle extra's even said
> they were going practice building their code skills again. They saw you
> can work stations on code that you can't work on phone or PSK31. We
> taught them how to solder on PL-259s and tune portable antenna & trim wire
> antennas.
>

> We laughed when they lifted up the tri-bander and then had to take it down
> again to connect up the coax. That was funny.
>
> SC

5078. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 12:35:50 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <GU8pg.57828$fb2.32563@newssvr27.news.prodigy.net>
Source record: 56919

Mike Coslo wrote:
> I'm just looking at what is there, and by looking at both the context of
> the advertisement, references given for their other antennas and the
> like, I'm just saying that I suspect that that antenna is a OCF dipole.

At:

http://www.commparts.com/catalog/index.php?cPath=9&sort=2a&page=2

The OCF's are labeled as Windoms and drawn with unequal elements.
The ones drawn with equal elements are not labeled as Windoms.
I would infer that they are different but I could be wrong. I sure
would like to know what's inside the "balun".
--
73, Cecil http://www.qsl.net/w5dxp

5079. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 12:51:03 UTC
From: Cecil Moore <mycall@hotmail.com>
Message-ID: <X69pg.57829$fb2.1458@newssvr27.news.prodigy.net>
Source record: 56920

Roy Lewallen wrote:
> Nearly any ham can measure the SWR but almost none can measure the
> efficiency.

How about ten interested parties sending you $5 each so
you can buy and test one and review and report back here?
--
73, Cecil http://www.qsl.net/w5dxp

5080. Re: Anyone here think this crap isnt a scam?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 13:19:12 UTC
From: Backfire Bob <Backfire@twicepipes.org>
Message-ID: <kx9pg.57832$fb2.16356@newssvr27.news.prodigy.net>
Source record: 56921
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

"Walt Davidson" walt@ukgateway.net in message
news:5rc9a2dgkck8vkj3ehb2cf6vrc5vu2t778@4ax.com...
> On Fri, 30 Jun 2006 03:27:21 GMT, "Backfire Bob"
> <Backfire@twicepipes.org> wrote:
>
>>WOW Walt! you sure showed me..you fat old over inflated windbag....
>>Go back to printing your own DX QSL cards for your wall..you fake.
>
> The rank CBer exposes himself at every turn.
>
> Of course, it was always inevitable that this would be the result of
> letting these people into ham radio.
> :-(
>
> 73 de G3NYY
>
> --
> Walt Davidson Email: walt@ukgateway.net

You GO! there Bluto :) what a winner......

All anyone has to do is simply google "G3NYY" or walt@ukgateway.net
and see what a WANKER you really are......nothing but a DX/QSL fake.....
Not much credit from a 400 pound whale.....HF rig on one side, refrigerator
on the other.
Send us a picture, one hand on a key, the other holding a apple
fritter....Rank pig....

5081. get help

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 14:23:24 UTC
From: an old freind <kb9rqz-ars@hotmail.com>
Message-ID: <1151677404.724406.29510@m73g2000cwd.googlegroups.com>
Source record: 56922
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

peewee_lloyd_davies@yahoo.com wrote:
> an old friend wrote:
> > gwatts wrote:
> > > Tom Ring wrote:

> > indeed it is ilegal not that Law Enforcement cares
>
> Career criminal Marqueer speaking for law enforcement? HAHAHAHA!
no criminal careeer here abut since after you enage in more serious
stlaking yourself you like me know that LE will do nothing
>
> > and I simply make those that wish to know something about me ask
>
> Bullshit, you are hiding and spamming.
bullshit right I hide nothing and sapm not
IF I did spam you have gotten hughesnet to dummp me months ago

get help

5082. Re: Elimination of CW is a loss in the number of ways we can communicatewith other.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 14:41:56 UTC
From: an old friend <kb9rqz-MCM@hotmail.com>
Message-ID: <1151678516.063758.28820@p79g2000cwp.googlegroups.com>
Source record: 56923
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy,rec.radio.shortwave

```
J. D. B. wrote:
> Let's be honest, the only thing you can repair is some old piece of junk
> tube rig because the technology is so simple. You could never repair a
> modern rig, because like most dinos, you have ever evolved into the new
> technology because out of fear, you cling to what is old and comfortable.
>
> Slow Code wrote:
> > Cecil Moore <mycall@hotmail.com> wrote in
slow code is not honest period
```

5083. Re: Anyone have an EZNEC Windom Model

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 15:15:43 UTC
From: Bob Miller <NOSPAM@neosoft.com>
Message-ID: <jpfaa2hnsea3t8d2hdba0takaif825apq4@4ax.com>
Source record: 56925

On Fri, 30 Jun 2006 10:21:32 +0000, David A'Bear
<David.ABear.2a812u@news.radiobanter.com> wrote:

>
>Larry Wrote:
>> I would like to model my Carolina Windom antenna and compare it with
>> the
>> real antenna that I have installed. Does anyone have EZNEC modelling
>> data
>> for any kind of Windom that they are willing to share?

I believe the Cebik site has an article or two on off-center fed
dipoles. And if you're a qst subscriber, there are probably a number
of old windom articles you can look at, at the arrl technical site.

bob
k5qwg

>>
>> 73
>> Larry
>Hi Larry - Just wonder if you have had any luck? Working on the same
>thing myself and having difficulties.
>73
>David

5084. DDRR antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 15:27:11 UTC
From: JSF <jsf@yahoo.net>
Message-ID: <ypednZxCdphO3zjZnZ2dnUVZ_q2dnZ2d@comcast.com>
Source record: 56826

Anyone used one and if so how did it compare to a 1/4 wave.

5085. Re: Anyone here think this crap isnt a scam?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 16:00:26 UTC
From: "J S Austin, W8JSA" <w8jsa@w8jsa.org>
Message-ID: <uUbpg.52391$ZW3.16740@dukeread04>
Source record: 56827
Cross-posted to: alt.ham-radio,rec.radio.amateur.antenna

Walt Davidson wrote:
> On Fri, 30 Jun 2006 03:27:21 GMT, "Backfire Bob"
> <Backfire@twicepipes.org> wrote:
>
>
>>WOW Walt! you sure showed me..you fat old over inflated windbag....
>>Go back to printing your own DX QSL cards for your wall..you fake.
>
>
> The rank CBer exposes himself at every turn.
>
> Of course, it was always inevitable that this would be the result of
> letting these people into ham radio.
> :-(
>
> 73 de G3NYY
>

Let's change his name to 'Backfire Boob'.

--
J S AUSTIN, W8JSA
AMATEUR RADIO STATION W8JSA
CHESAPEAKE VA 23320
N36˚45'43” W076˚15'01”
FM16us

http://w8jsa.org/radio.html

5086. Re: DDRR antenna

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 16:05:02 UTC
From: jimp@specsol.spam.sux.com
Message-ID: <0eufn3-3q8.ln1@mail.specsol.com>
Source record: 56828

JSF <jsf@yahoo.net> wrote:
> Anyone used one and if so how did it compare to a 1/4 wave.

You might want to read:

http://www.orionmicro.com/ant/ddrr/ddrr1.htm

--
Jim Pennino

Remove .spam.sux to reply.

5087. Re: rf burn

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 18:47:31 UTC
From: You <You@shadow.orgs>
Message-ID: <You-753243.10490830062006@netnews.worldnet.att.net>
Source record: 56829

In article <wood-2906060734230001@jbw-mac.itd.nrl.navy.mil>,
wood@itd.nrl.navy.mil (J. B. Wood) wrote:

> In article <j3e2a29vk3u961nssj6ra4teh2drqmtg9d@4ax.com>, Win
> <w0lz@winlyn.us> wrote:
>
> > When I worked in broadcast radio years ago, I was always amazed that
> > service personnal would climb the 10 kw tower hot to change lights.
> > They stated they could feel potential between their hands as they
> > climbed.
> >
> > Win, wolz
>
> Hello, and was that a shunt-fed AM broadcast tower? You might just get
> away with a grab at ground level. OTOH, I would think that grabbing onto
> a live base-insulated type tower would have serious consequences when
> being fed by a 10 kW transmitter. Just looking at the RF bypass hardware
> needed at the base to provide for tower lighting (Austin transformer or
> Collins lighting choke) should be enough to say "keep away" while
> transmitting. Sincerely, and 73s from N4GG0,
>
> John Wood (Code 5550) e-mail: wood@itd.nrl.navy.mil
>
> Naval Research Laboratory
> 4555 Overlook Avenue, SW
> Washington, DC 20375-5337

Then you would be.....wait for it..... WRONG........

5088. Re: dipole made of two cb whips?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 18:56:18 UTC
From: "Steve N." <stuevue.nouskuowuicuz@moutouroula.com>
Message-ID: <e83s4jkka1@avnika.corp.mot.com>
Source record: 56830

Thanks for your comments Roy. I dispute nothing you said (like I'd even try). The area I focus on is that a beginner (and this was clearly such a guestion), trying to understand antennas shouldn't be given too many of the more esoteric aspects you point out such as a real earth ground-plane and radials on a real antenna.
I figured that a simple analogy, as long as it either holds up in the future, or its short comings can be easily understood later, is a valid starting point in a complex subject such as this. Ground losses and radiation angle effects of the real ground plane asside, the chosen counterpoise whatever its form, does indeed provide the "rest of the story" (:-) just as the OP has pretty much igured out and was looking for validation.

I believe the "trick" is a getting well-working analogy...something that will not be contradicted by the deeper understanding. (use the garden hose analogy to explain current, but know when to point out its shortcommings).

73, Steve, K9DCI

"Roy Lewallen" <w7el@eznec.com> wrote in message
news:12a8oudivc16i32@corp.supernews.com...
> Steve N. wrote:
> > . . .
> > While what Roy says is correct (there should rarely be any doubt) , I
> > believe Jim's interpretation is not in-valid and can be a very good
"mental
> > model" of antennas.. The monopole needs something to be its "other
half" as
> > Jim says. In a ground plane antenna, the "plane" is the other half. In
a
> > dipole (vertical or otherwise) the bottom half is the "other half". Any
and
> > every circuit needs two connections to have a complete circuit.
Sometimes,
> > with antennas, the "other half" is not obvious to everyone, but it will
> > always be there and Roy's words; "...the same amount of current which
flows
> > into a monopole must flow somewhere else .." addresses this "other
half"
> > issue. I believe Jims words are sufficently close to Roy's words to be
> > equivalent. So, I would say, Yes. There ain't no such thing as a
monopole,
> > you just don't realize what is acting as the other half (If you think
you

> > have one).
> > I believe this basic concept can be applied to almost every antenna
> > configuration to help understand, to a great extent, what is "going on"
>
> I agree with that.
>
> >
> > Jim:
> >> the element is
> >>> reflected by ground or a ground plane or a counterpoise and is
> >>> effectively a two element set up anyway.
> >> Roy:
> >> No, an element isn't "reflected". The field from any antenna, monopole
> >> or dipole, is reflected by the ground, creating interference with the
> >> unreflected field.
> >
> > Actyually I'd say Yes. I believe the following words describe precisely
the
> > same thing Roy said.
> > In electromagnetic field theory studies, there is something called
the
> > "Method of Mirrors". This is a way to calculate a field when there is a
> > conducting plane nearby. To model the conducting plane is
mathematically
> > very complex. You actually can model the conducting plane as a mirror
which
> > has produced a "reflection" of the element in it. This reflection,
because
> > of the properties of the field, has the opposite sign (polarity) and is
> > mathematically handled as though it was another element in the place
> > conducting plane. . It turns out that with this new model, it is much
> > easier to do the math to get the total field. (NO I can't do it any
> > more...don't actually think I was doing it the first time! bad
instructor).
> > So, I would say that it is a pretty good analogy to say that the ground
> > plane "has the effect of" reflecting the monopole and therefore
providing
> > the "other half".
>
> The reasons I objected to the concept are twofold. First, there's some
> ambiguity in what constitutes the "ground plane" which does the
> "reflecting". The "ground plane" of a ground plane antenna reflects
> nothing except very high angle radiation. So it doesn't act as a mirror
> in any sense. Secondly, the Earth does reflect the field, but the result
> isn't anything like a mirror. Only a perfect ground ends up creating the
> same shaped field from a grounded vertical as a free space dipole. Real
> ground creates a field shape which is very significantly different. So
> the model of a mirror-like ground isn't at all a good one; its use leads
> to incorrect conclusions so I don't feel it should be used unless the
> user clearly understands that the conditions under which it's valid

> aren't ones you can achieve very well at all -- except with salt water
> or with a very large (several wavelength radius) conducting plane
> perhaps at UHF.
>
> >> so, somebody take me to
> >>> school on this; what about a ground plane whip such as a cb antenna
with
> >>> another identical whip mounted upside down below it?
> >> This constitutes a vertical dipole, a common antenna type.
> >
> > You have, ideed described a dipole turned vertical...and I feel you
have
> > identified a very important concept in antennas. Just about every
antenna
> > can be understood better if you start out by finding the "dipole" hidden
> > within. beams, G5RVs end-fire arrays, broasdide arras, J-Antennas,
> > colinears...
> >
> >
> >> would the bottom
> >>> whip appear equal to a ground plane and allow the antenna to radiate
as
> >>> it was intended to?
> >> No, it wouldn't "appear equal to a ground plane". As for the antenna
> >> radiating as it's intended to, how do you intend for it to radiate?
> >
> > Per my above, I'd say that Jim's description is a relatively good
model
> > to have in your head. If the groundplane "acts" similar to a mirror
giving
> > rise to the equivalent of the "other half" of the dipole, and that
result is
> > equivalent to another "half" mounted below it, I feel this only leaves
us to
> > debate the real meaning of Jim's words "...appear equal to ...". I
think
> > that is a pretty good way to think about it.
>
> Well, no, a typical "ground plane" doesn't act like a mirror, as I
> explained above. And even the Earth does a very poor job of acting like
> one. At best, it's a dirty mirror which isn't uniformly dirty. The only
> common exception is salt water, which does a fair job.
>
> >> would this work in an application where a decent rf
> >>> ground cannot be achieved?
> >> Sure. A vertical dipole is a very common type of antenna. A google
> >> search should bring you a wealth of information.
> >
> > Ditto on what Roy said, plus: The antenna commonly called a
"J-Pole" is

> > "the same thing" as a half wave dipole, but stood on end,
> > vertically...EXCEPT it is fed power at its bottom end not in the middle.
> >
> > As an asside...I'll also add that this concept of a "decent RF
ground"
> > is something that many seem to believe is some sort of an absolute
thing.
> > Comments labout wanting to get a wire to a ground rod as being the
solution
> > to all things...the hunt for the "good RF ground". I have a
tongue-in-cheek
> > twist on an old saying: "A ground's a ground, the world around." An RF
> > ground is somwhat of a myth, even on a solid sheet of copper, but some
think
> > there is this absolute GROUND that all things must be connected to in
order
> > for things to work correctly, or solve problems. Of course I know
that, as
> > Jim states, that the bottom half of this vertical dipole is the "other
half"
> > of the antenna and might be considered a "ground" but is is nothing more
> > than the other half of the antenna and hads, and needs, absolutely no
> > relation a zerp potential reference, whatever that is.
>
> Yes, "ground" is a concept which is almost universally misunderstood and
> misused. Calling something "ground" seemingly imparts magical properties
> to it. Very often, it gets in the way of understanding how antennas
> work, and people would be better off forgetting about it. It's not
> uncommon for an EZNEC user to ask how to model a "ground" or to specify
> that something is a "ground", meaning some sort of elevated
> "counterpoise" or "ground plane". I explain that the program doesn't
> know or care what the user might consider to be "ground" -- all it knows
> and cares about are conductors and currents. People hoping to understand
> antennas would be well served by doing the same.
>
> > . . .
>
> Roy Lewallen, W7EL

5089. Re: dipole made of two cb whips?

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 20:03:24 UTC
From: Richard Fry <rfry@adams.net>
Message-ID: <44a582bd_1@newsfeed.slurp.net>
Source record: 56831

"Roy Lewallen" wrote
> Only a perfect ground ends up creating the same shaped field from a
> grounded vertical as a free space dipole.
> Real ground creates a field shape which is very significantly different.

A 1/4 to ~1/2-wave vertical monopole used with the typical radial ground system of MW broadcast stations actually does _generate_ very nearly the same pattern and peak field as a free-space dipole of twice the length as that monopole. This has been demonstrated by field measurements going back to 1937 (George Brown, et al).

It is only after the radiated wave leaves the vicinity of the antenna that the conductivity of real earth begins to affect it. These effects accumulate, and at distant ranges, there is more reduction in the groundwave field than at angles above the horizontal plane

That is why the pattern takes on the shape shown for it by pattern analysis of this hardware for an infinite distance -- which has zero field in the horizontal plane. But it doesn't have that shape as it leaves the radiation system.

RF

5090. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 20:29:36 UTC
From: Michael Coslo <mjc5@psu.edu>
Message-ID: <e841jg$1b9i$1@f04n12.cac.psu.edu>
Source record: 56832

```
Roy Lewallen wrote:
> Mike Coslo wrote:
>> Roy Lewallen wrote:
>>> Mike Coslo wrote:
>>>
>>>> . . .
>>>> I don't doubt that someone might come to a different conclusion,
>>>> but I think my reasoning is pretty sound. I modeled an equal length
>>>> version of this in 4nec, and it just doesn't work very well. OTOH,
>>>> turn it into an OCF dipole, and it is a different story. . .
>>>
>>>
>>> How did you possibly determine what the balun input impedance was
>>> when terminated with the impedances the antenna presented on the
>>> various bands?
>>
>> You are correct, I couldn't. But what I got was enough to tell me
>> that with the two sides of equal length, there wasn't much need to go
>> any further. Cannot some antenna characteristics be modeled without
>> the entire system in place?
>
> Yes, but you have to at least include the whole antenna -- you can't
> tell much about a two-element array by modeling a single isolated
> element. In the case of an OCF dipole, unless heroic efforts are made to
> keep common mode current off the feedline (which the balun doesn't
> achieve), the feedline is part of the antenna so, like the second
> element of an array, it can have a major impact on the both the pattern
> and impedance and has to be included in the model. The balun, feedline
> length, and feedline orientation all play a role in determining how much
> current goes down the feedline part of the antenna and where that part
> is. So you have to know at least that much to get a meaningful result.
>
> I'm no expert, so I'll ask the question: Is
>> there some Balun that will make a 135 foot equal length antenna
>> perform on 80-10 meters?
>
> "Perform" is one of those binary terms that depend on where you put the
> dividing line. But the answer is that the only practical way you can
> achieve a reasonable impedance match to a coax feedline on all bands
> with a center fed 135 foot antenna is to introduce a fair amount of
> loss. This could be in the form of a resistor at the feedpoint, for
> example. Then you'll have an inefficient antenna at least on some bands.
> Alternatively, you can have low loss at the feedpoint but a lousy
> impedance match. Then you'd have a lot of loss in the feedline if you
```

> fed it with coax. The bottom line is that you'll have poor efficiency on
> at least some bands if you feed it with coax, no matter what you do --
> short of putting either an adjustable or very elaborate fixed matching
> network at the feedpoint.
>
> Nearly any ham can measure the SWR but almost none can measure the
> efficiency. So many antenna manufacturers have produced lossy antennas
> which exhibit a low SWR. This is perfectly acceptable to many amateurs,
> as evidenced by glowing reviews for a number of antennas which can be
> shown to be quite inefficient such as the B&W T2FD or the Isotron. Those
> amateurs would positively say that such antennas "perform", and this
> can't be disputed since the judgment is entirely up to them.
>
>> . . .
>
>> Others may take it at all at face value, disregard all the
>> evidence to the contrary, and assume that the sellers are just trying
>> to hoodwink a gullible public into buying a non-working product.
>>
>> That doesn't make sense to me. YMMV
>
> "Working" is like "perform" -- the threshold is different for different
> people. But a quick scan of reviews for the Buckmaster and Alpha-Delta
> OCF antennas (the latter apparently manufactured by Buckmaster) show
> high satisfaction from at least the users who have taken the time to
> post reviews. Whether you or I would be happy with one depends on our
> personal criteria.

As a *very* loose definition of work, I would say that I would expect
an antenna that advertises itself as an "all band" would allow a modern
Transceiver to put our something like full power, that is, to not fold
back on power. Oh yeah, and to radiate something. I don't see a tuner in
that diagram, so take your pick whether they are assuming an internal tuner.

Certainly there are a lot more stringent criteria. But that would seem
to suffice for many hams. 8^)

- 73 de Mike KB3EIA -

5091. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 20:45:09 UTC
From: gravity <gravityzrainbow@yahoo.com>
Message-ID: <44a58e0f$0$16357$892e7fe2@authen.yellow.readfreenews.net>
Source record: 56833

"Michael Coslo" <mjc5@psu.edu> wrote in message
news:e841jg$1b9i$1@f04n12.cac.psu.edu...

> As a *very* loose definition of work, I would say that I would expect
> an antenna that advertises itself as an "all band" would allow a modern
> Transceiver to put our something like full power, that is, to not fold
> back on power. Oh yeah, and to radiate something. I don't see a tuner in
> that diagram, so take your pick whether they are assuming an internal
tuner.
>

if i bought a similar antenna, i'd assume i'd need a tuner. i mean i needed
one with my 120 foot (60 + 60) foot doublet. you don't even need a real
fancy tuner, mine was a small Yaesu digital. it did have some problems on
40 meters (high Z?).

Gravity

5092. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 21:17:54 UTC
From: Roy Lewallen <w7el@eznec.com>
Message-ID: <12ab588alg64h6c@corp.supernews.com>
Source record: 56834

Michael Coslo wrote:
>
> As a *very* loose definition of work, I would say that I would
> expect an antenna that advertises itself as an "all band" would allow a
> modern Transceiver to put our something like full power, that is, to not
> fold back on power. Oh yeah, and to radiate something. I don't see a
> tuner in that diagram, so take your pick whether they are assuming an
> internal tuner.
>
> Certainly there are a lot more stringent criteria. But that would
> seem to suffice for many hams. 8^)

Indeed it does. Many are happy with an antenna that gives a low SWR on all bands and radiates 1/100 of the applied power. You can work the world with one watt of radiated power. On the other hand, give a ham an efficient but poorly matched antenna that causes his rig to fold back and produce only 10 watts, and he'll be an unhappy camper. So the first antenna "works" but the second doesn't, even though the signal it radiates is 10 dB stronger.

Roy Lewallen, W7EL

5093. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 23:21:53 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <lmipg.724$ye3.483@newsread1.news.pas.earthlink.net>
Source record: 56835
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

"J. D. B." <duffyb01@nospamfuse.net> wrote in
news:14079$44a50aea$d06640f9$26607@FUSE.NET:

> Wow, you guys must have been part of the most ignorant group of
> individuals ever put on this earth using the most crappy computers and
> equipment. All the computers crashed? Wow, how could that have
> happened?
>
> I am surprised that the newbies are still using ham radio after hanging
> around with you dinos. Computers broke down and you could not help fix
> them. That's right, the computers don't run on tubes and that is the
> extent of your knowledge as dinos.
>
> Now anyone that uses PSK knows that you can work a station that you
> cannot hear with the human ear. Anyone that knows CW knows that you
> have to hear CW in order to copy it. So as a dino, you are showing your
> ignorance of technology and probably have never heard, seen or used PSK
> or you would never have made that statement.
>
> My Field Day group had a good laugh when I pointed out your message to
> them. They said you obviously don't know what you are talking about -
> at least concerning anything modern.
>
> So you old, used up, worthless dinos laughed at the newbies, belittled
> them, and you could not fix or use anything modern. And you think those
> newbies are going to stick with ham radio? Probably not. Old thinking
> buggy whip hams like yourself need to stay locked in your shacks talking
> only with other dinos about your illnesses and the like, and stay away
> from the younger technology savy crowd as they might be really
> interested in ham radio and your old crap is going to scare them away.
>
> They don't want to learn about buggy whips when they are interested in
> driving a modern car - get it old timer?

I know you're right.

These new modernized hams want everything to be easy just like flipping
the on-off switch on an appliance. We try and tell them that ham radio is
more than just operating an appliance, but they won't listen. Then when
murphy's law kicks in they don't know how to deal with it. I feel sorry
for them, but it's really not their fault that licensing has been dumbed
down over the years. The phonies did notice after we put the broken
computers in the dumpster that the bands sounded much better without all

the computer generated noise on their receivers. And their contacts per minute increased. They realize now that when equipment fails it's nice to have skills you can fall back on that will let you keep communicating. Especially important during emergencies. Hams wouldn't look good if during an emergency we couldn't communicate.

SC

5094. Re: Field day was great, even the phonies had fun and learned from us dinosaurs.

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 23:21:56 UTC
From: Slow Code <my.mail@no.spam>
Message-ID: <omipg.725$ye3.167@newsread1.news.pas.earthlink.net>
Source record: 56836
Cross-posted to: rec.radio.amateur.antenna,rec.radio.amateur.misc,rec.radio.amateur.policy

Cecil Moore <mycall@hotmail.com> wrote in
news:Cw_og.57621$Lm5.34062@newssvr12.news.prodigy.com:

> Slow Code wrote:
>> That's generally when you find out your rig might need repair, when
>> someone reports your audio is distorted or garbled.
>
> I invariably find out my rig needs repair when the
> finals blow.

And how many times has that happened to you? I'll bet never. You're too
smart to smoke your finals. Normally when I hear someone lost their
finals it was a result of operator error, or an act of stupidity.

sc

5095. Re: All Band Coax-fed Dipole ??????????

Newsgroup: rec.radio.amateur.antenna
Date: 2006-06-30 23:25:23 UTC
From: Ron <wa0kds@yahoo.com>
Message-ID: <44A5B476.7060300@yahoo.com>
Source record: 56837

> Indeed it does. Many are happy with an antenna that gives a low SWR on
> all bands and radiates 1/100 of the applied power. You can work the
> world with one watt of radiated power. On the other hand, give a ham an
> efficient but poorly matched antenna that causes his rig to fold back
> and produce only 10 watts, and he'll be an unhappy camper. So the first
> antenna "works" but the second doesn't, even though the signal it
> radiates is 10 dB stronger.
>
> Roy Lewallen, W7EL

Well said but now everyone knows the secret.